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APPENDIX A EIA TOOL

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Otway Exploration Drilling Program Environment Plan - Appendix A

This spreadsheet contains tools which generated information that supports the Environment Plan development completed by ConocoPhillips Australia in preparation for to submission to NOPSEMA. It has been used in the development of the EP so that a systematic, reproducible, and thorough process is followed.

There are ten sections in this spreadsheet which contain the following information:

Section	Title	Purpose	Input	Output
1	Activity-Aspect Tool	A matrix to show the relationship between the operational details of the activity against planned and unplanned aspects.	Activity Description	Aspects to be considered in the Aspect-Impact-Receptor Tool.
2	Aspect-Impact-Receptor Tool	A matrix to show the relationships that need to be assessed in the EIA and ERA between the environmental aspects and the impacts that arise against the typical marine and coastal environmental receptors.	Activity-Aspect Tool	Screened impacts and risks ordered into lower and higher order matters to be assessed.
3	Commonwealth Legislation	Commonwealth legislation relevant to the Otway Exploration Drilling Program	PMST Search Tool (Appendix B) Activity Description	Management actions required to meet environmental management laws.
4	State Legislation	State legislation relevant to the Otway Exploration Drilling Program	EMBA	Management actions required to meet environmental management laws.
5	International Codes	International conventions and agreements relevant to the Otway Exploration Drilling Program	Activity Description	Management actions required to meet environmental management laws.
6	Receptor Management Plans	A detailed record of knowledge gathered about receptors identified through the Protected Matter Search Tool (PMST). Includes information about the relevant conservation actions required for each receptor used in the EIA process.	Aspect-Impact-Receptor Tool No effect distance based on research and justified thresholds.	Management actions required to meet EPBC Program requirements.
7	Other Relevant Guidance	Other published guidance relevant to the Otway Exploration Drilling Program	PMST Search Tool (Appendix B) Activity Description	Management actions required to meet environmental management guidance.
8	Cumulative Impact Assessment Scoping Tool	Ensures previous, current, and future activities have been properly considered in the EP.	NOPSEMA website Activity Description	List of aspects that need to be considered in the CIA Scoping Tool.
9	Cumulative Impact Assessment Tool	Assessment of the Otway Exploration Drilling Program cumulative impacts.	CIA Scoping Tool	Management actions required to meet EPBC Program requirements and environmental management laws.
10	Environmental Performance	A compilation of control measures against the environmental performance standards and measurement criteria.	Legislation and guidance Impact/Risk Assessment Company standards	Environmental performance required to the titleholder to manage environmental impacts and risks to ALARP.

Activities and Aspects Matrix

Activity	Offshore Drilling Activities						Support Activities		
	Survey Activities	Drilling Operations	Drilling Activities	Well Formation Evaluation	Well Test	P&A	Vessels	Helicopter	ROV
Aspect									
Planned Events									
Emissions – Underwater Sound (non-impulsive)		✓	✓			✓	✓	✓	✓
Emissions - Underwater Sound (impulsive)	✓			✓					
Emissions – Light		✓			✓		✓		✓
Emissions – Atmospheric		✓		✓	✓		✓	✓	
Planned Discharges – Drilling			✓			✓			
Planned Discharges - Operational		✓					✓		
Seabed Disturbance	✓	✓	✓			✓			
Interference with other marine users		✓					✓		
Unplanned Events									
Loss of Materials or Waste Overboard		✓					✓		
Minor Loss of Containment		✓					✓		✓
Interaction with Marine Fauna		✓					✓	✓	
Introduction, Establishment and Spread of IMS		✓					✓		
Hydrocarbon Release - MDO release		✓					✓		
Hydrocarbon Release - Loss of Well Control (LOWC)			✓						
Spill Response Activities									
Source Control	✓	✓	✓	✓	✓	✓	✓		✓
Monitoring, Evaluation and Surveillance							✓	✓	✓
Mechanical Dispersion							✓		
Oiled Wildlife Response							✓	✓	
Waste Management							✓		
Scientific Monitoring							✓	✓	✓

Aspects-Impact-Receptor Screening Tool

Aspects	Receptors	Physical					Ecological								Socio-economic Receptors		Conservation Values and Sensitivities	Cultural Environment
	Impacts	Water Quality	Sediment Quality	Air Quality	Ambient Light	Ambient Sound	Benthic Communities	Coastal Habitats and Communities	Plankton	Marine Invertebrates	Fishes	Birds	Marine Reptiles	Marine Mammals	Commercial Fisheries	Other Marine and Coastal Users	KEFS/AMPs	Sea Country
Planned Events																		
Emissions - Underwater Sound (Continuous)	Change in ambient sound					✓												
	Injury/mortality to fauna										✓		✓	✓				
	Change in fauna behaviour										✓	X	✓	✓				
	Change to values and sensitivities																✓	
	Changes to the functions, interests or activities of other users														✓			✓
Emissions - Underwater Sound (Impulsive)	Change in ambient sound					✓												
	Injury/mortality to fauna									X								
	Change in fauna behaviour										X	X	✓	✓				
	Change to values and sensitivities																✓	
	Changes to the functions, interests or activities of other users														X			✓
Emissions - Light	Change in ambient light				✓													
	Change in fauna behaviour											✓	✓					
	Injury/mortality to fauna											✓						
	Change to values and sensitivities																✓	
	Change in aesthetic value															✓		
	Changes to the functions, interests or activities of other users														X			✓
Emissions - Atmospheric	Change in air quality			✓														✓
	Change in climate																	
	Change in water quality	✓																
	Change in habitat						✓	✓	✓	✓	✓	✓	✓	✓				
	Change to values and sensitivities																✓	
	Changes to the functions, interests or activities of other users														✓	✓		✓
Planned Discharges -Drilling	Change in sediment quality		✓															
	Change in water quality	✓																
	Change in habitat						✓			✓								
	Injury / mortality						✓		✓	✓	✓		✓	✓				
	Change to values and sensitivities																X	
	Changes to the functions, interests or activities of other users																	✓
Planned Discharged - Operational	Change in water quality	✓																
	Injury / mortality								✓		✓		✓	✓				
	Change in fauna behaviour										✓	✓						
	Change to values and sensitivities																X	
	Changes to the functions, interests or activities of other users																	✓
Seabed Disturbance	Change in habitat						✓											
	Change in water quality	✓																
	Injury / mortality to fauna						✓											
	Change to values and sensitivities																X	
	Changes to the functions, interests or activities of other users														✓	✓		✓
Interference with Other Marine Users	Changes to the functions, interests or activities of other users														✓	✓		✓
	Changes to the visual amenity of coastal locations															✓		✓
Unplanned Events																		
Loss of Materials or Waste Overboard	Injury / mortality											✓	✓	✓				
	Change in habitat						✓											
	Changes to the functions, interests or activities of other marine and coastal users														X	X		✓
Minor Loss of Containment	Change in water quality	X																
	Injury/mortality to fauna								X	X	X	X	X	X				
	Change in values and sensitivities																X	
	Changes to the functions, interests or activities of other marine users																	X
Interaction with Marine Fauna	Injury/mortality to fauna										✓	✓	✓	✓				
	Change in values and sensitivities																✓	
	Changes to the functions, interests or activities of other marine users																	X
Introduction of IMS	Change in values and sensitivities						✓			✓							✓	
	Changes to the functions, interests or activities of other marine users														✓			X

Hydrocarbon Release - MDO release	Change in water quality	✓															
	Change in fauna behaviour							✓		✓	✓	✓	✓	✓			
	Injury/mortality to fauna						✓		✓	✓	✓	✓	✓	✓			
	Change in values and sensitivities						✓	✓								✓	
	Changes to the functions, interests or activities of other marine users														✓	✓	✓
	Change in aesthetic value							✓								✓	
Hydrocarbon Release - Loss of Well Control (LOWC)	Change in water quality	✓															
	Change in fauna behaviour							✓		✓	✓	✓	✓	✓			
	Injury/mortality to fauna						✓		✓	✓	✓	✓	✓	✓			
	Change in values and sensitivities						✓	✓								✓	
	Changes to the functions, interests or activities of other marine users														✓	✓	✓
	Change in aesthetic value							✓								✓	
Spill response Activities	Change in water quality	✓															
	Change in fauna behaviour							✓				✓					
	Change in habitat						✓	✓				✓					
	Injury / mortality to fauna						✓	✓				✓					
	Change in values and sensitivities															✓	
	Changes to the functions, interests or activities of other marine users															✓	✓

X	Subject to impacts/risks that are predicted to have a consequence considered as Negligible (1)

Commonwealth Legislation

Legislation	Objectives/Actions relevant to Otway Exploration Drilling Program	Application to Activity
Australian Maritime Safety Authority Act 1990 (AMSA Act)	Facilitates international cooperation and mutual assistance in preparing and responding to major oil spill incidents and encourages countries to develop and maintain an adequate capability to deal with oil pollution emergencies.	Requirements are implemented through the Australian Maritime Safety Authority (AMSA). AMSA is the lead agency for responding to oil spills in the Commonwealth marine environment and is responsible for implementing the Australian National Plan for Maritime Environmental Emergencies ('NatPlan)'. Arrangements are detailed in the OPEP.
Australian Heritage Council Act 2003	An independent advisory council, the Australia Heritage Council, was established under the Act to provide expert advice on heritage matters. The Council plays a key role in assessment, advice, policy formation and support for major heritage programs including the assessment and nomination of places for the National Heritage and Commonwealth Heritage Lists.	There is the potential for cultural heritage areas or objects to be located within or associated with the operational areas and EMBA. Section 4.4.2 and 4.4.3 identifies known heritage within the EMBA.
Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGS Act, the Act) Offshore Petroleum and Greenhous Gas Storage (Environment) Regulations 2009 (OPGGSE Regulations, Environment Regulations)	Provides the legislative framework for the exploration and recovery of petroleum and greenhouse gas (GHG) activities in Commonwealth waters (those areas that are more than three nautical miles from the territorial seal baseline). This Act establishes the Joint Authority for each offshore area, the National Offshore Petroleum Titles Administrator (NOPTA) and the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). The Joint Authorities are responsible for key petroleum title decisions in Commonwealth waters including, but not limited to, the release and grant of offshore petroleum exploration areas. NOPTA administers titles and data management for petroleum and greenhouse gas (GHG) titles in Commonwealth waters and provides expert advice, administration, compliance monitoring and data management in accordance with OPGGS Act. NOPSEMA is the Independent regulator for health and safety, structural (well) integrity and environmental management for all offshore petroleum and GHG operations in Commonwealth waters and in coastal waters where regulatory powers and functions have been conferred. The Environment Regulations provide for the robust regulation of environmental management of petroleum and greenhouse gas storage activities in Commonwealth waters, and aim to ensure that activities in these areas are: • Undertaken in a manner that is consistent with ecologically sustainable development • In line with the objective that environmental impacts and risks are reduced to as low as reasonably practicable and are of an acceptable level. The Regulations require that a NOPSEMA accepted Environment Plan (EP) and Oil Pollution Emergency Plan (OPEP) be place for any petroleum activity prior to commencement. They also establish requirements for consultation in preparing an EP and for public comment.	The OPGGS Act provides the regulatory framework for all offshore petroleum exploration and production activities in Commonwealth waters, to ensure that the activities are carried out to: • be consistent with the principles of ecologically sustainable development as set out in section 3A of the EPBC Act. • reduce environmental impacts and risks of the activity to be ALARP. • ensure that environmental impacts and risks of the activity are of an acceptable level. Evidence showing that the activity will be undertaken in line with the principles of ecologically sustainable development, and that the risks and impacts resulting from these activities are acceptable and ALARP is provided in Section 6 and 7

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The EPBC Act is the Australian Government's central piece of environmental legislation which provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the EPBC Act as matters of national environmental significance. On 28 February 2014, the NOPSEMA Program, which was endorsed by the Australian Government under the EBPC Act, came into effect. The Program provides for NOPSEMA to assess and make approval decisions for new offshore petroleum development projects and shorter-term activities. NOPSEMA's environmental assessment processes consider all project- and activity specific environmental impacts and risks, including but not limited to those relevant to matters protected under Part 3 of the EPBC Act. Decision-making under the Program ensures that environmental impacts and risks, including to matters protected under Part 3 of the EPBC Act, will be of an acceptable level and reduced to as low as reasonably practicable (ALARP). The object of the Environment Regulations is also to ensure that any petroleum activity or greenhouse gas storage activity is carried out in a manner consistent with the principles of ecologically sustainable development as set out in section 3A of the EPBC Act. Matters of National Environmental Significance (MNES) include: • World heritage properties • National heritage places • Wetlands of international importance (Ramsar wetlands) • Nationally threatened species and ecological communities • Migratory species • Commonwealth marine areas • The Great Barrier Reef Marine Park • Nuclear actions (including uranium mining) • A water resource, in relation to coal seam gas and large coal mining developments. Example: Under the EPBC Act, all cetaceans (whales, dolphins and porpoises) are protected within the Australian Whale Sanctuary, which includes all Commonwealth waters from the state waters limit out to the boundary of the Exclusive Economic Zone. Section 229 of the EPBC Act makes it an offence to kill, injure or interfere with a cetacean within the Australia Whale Sanctuary.	Petroleum activities are excluded within the boundaries of a World Heritage Area (Sub regulation 10A(f)). • The activity is not within a World Heritage Area. The EP must describe matters protected under Part 3 of the EPBC Act and assess any impacts and risks to these: • Section 4 describes matters protected under Part 3 of the EPBC Act The EP must assess any actual or potential impacts or risks to MNES from the activity: • Section 6 and 7 provide an assessment of the impacts and risks from the activity to matters protected under Part 3 of the EPBC Act.
Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations)	Provides for the listing of threatened species and ecological communities, registration of critical habitats, the development of recovery and threat abatement plans and conservation agreements. Part 8 – Interacting with cetaceans and whale watching provides for the protection and conservation of cetaceans, including: • Exclusion and cautions zones around cetaceans and calves • Speed restrictions • Avoidance actions • Posting a lookout • Aircraft heights. Part 9 provides for the conservation of biodiversity in commonwealth areas, Part 10 provides management principles for protected areas, and Parts 11 and 12 provide for commonwealth reserves and activities within these areas.	Interaction requirements are applicable to the activity in the event that a cetacean is sighted. Section 6 and 7 details how these requirements will be applied
Protection of the Sea (Prevention of Pollution from Ships) Act 1983 *•Part III (Prevention of pollution by noxious substances)* *• Part IIIA (Prevention of pollution by packaged harmful substances)* *• Part IIIC (Prevention of pollution by garbage)*	Regulates ship-related operational activities and invokes certain requirements of the MARPOL Convention relating to discharge of noxious liquid substances, sewage, garbage, air pollution etc. It requires that ships >400 gross tonnes have pollution emergency plans. Several Marine Orders (MO) are enacted under this Act relating to offshore petroleum activities, including: • MO 91: Marine Pollution Prevention – Oil • MO 93: Marine Pollution Prevention – Noxious liquid substances • MO 94: Marine Pollution Prevention – Packaged harmful substances • MO 95: Marine Pollution Prevention – Garbage • MO 96: Marine Pollution Prevention – Sewage • MO 97: Marine Pollution Prevention – Air Pollution • MO 98: Marine Pollution Prevention – Anti- fouling Systems. The drilling rig and support vessels >400 gross tonnes will adhere to the relevant MOs by having a Shipboard Marine Pollution Emergency Plan (SMPEP), Oil Record Book and Garbage Management Plan in place and implemented, along with international pollution prevention certificates verifying compliance with oil, air pollution and sewage measures.	All ships that are involved in petroleum activities in Australian waters are required to follow the regulations of this Act along with all relevant MOs. Section 6 and 7 detail the requirements applicable to vessel activities.

Protection of the Sea (Harmful Anti-fouling Systems) Act 1983	Regulates the use of anti-fouling compounds and systems in Australian waters, developed as part of Australia's commitment to MARPOL and the International Convention on the Control of Harmful Anti-fouling Systems on Ships. It is an offence to engage in negligent conduct that results in a harmful anti-fouling compound being applied to a ship. Australian ships must hold anti-fouling certificates, provided they meet certain criteria.	The vessels to be used for the Otway Exploration Drilling Program will have anti-fouling management regimes in place that are consistent with this Act. MO 98: Marine Pollution Prevention – Anti-fouling Systems is enacted under this Act. Section 7.5 of the EP details the requirements applicable to vessel activities.
Environment Protection (Sea Dumping) Act 1981	Regulates the loading and dumping of waste at sea and the creation of artificial reefs in Australian waters. Australian waters stretch from the low-water mark of the Australian shoreline out to 200 nautical miles (nm). It does not include waters within the limits of a state or territory. It prohibits the ocean disposal of material considered too harmful to be released into the marine environment, regulates permitted ocean waste disposal to minimise its environmental impacts, and applies to all vessels, aircraft, and platforms in Australian waters, and to all Australian vessels and aircraft in any part of the sea.	There will be no dumping at sea that falls within the meaning of the legislation that would require a sea dumping permit to be obtained.
AMSA Marine Orders Part 94 (Marine pollution prevention - packaged harmful substances) 2014	Sets out the requirements for preventing harmful substances carried by regulated Australian vessels, domestic commercial vessels and Australian recreation vessels from entering the marine environment, including management of: • Harmful substances in packaged form • Washing substances overboard • Notifying and reporting an incident.	All ships involved in petroleum activities in Australian waters are required to abide to the requirements under this Act. Section 6 and 7 details the requirements applicable to vessel activities.
AMSA Marine Orders Part 95 (Marine pollution prevention - garbage) 2018	Sets out the requirements for management of: • Cargo residues • Discharges of animal carcasses • Garbage management plans • Garbage record books.	All ships involved in petroleum activities in Australian waters are required to abide to the requirements under this Act. Section 6 and 7 details the requirements applicable to vessel activities.
Navigation Act 2012 (& Regulations 2013) and various Marine Orders (appropriate to vessel class) enacted under this Act	Regulates ship-related activities in Commonwealth waters including Safety of Life at Sea (SOLAS) and specific requirements for navigational lighting and invokes certain requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) relating to equipment and construction of ships. Although the Act does not apply to the operation of petroleum facilities, it may apply to some of the actions of seabed survey and support vessels (seafarers) in Australian waters. Of relevance are: • Chapter 6 (Safety of navigation), particularly Part 3 (Prevention of collisions). • AMSA MO 21 Safety of Navigation and Emergency Procedures. • AMSA MO 27 Safety of Navigation and Radio Equipment. • AMSA MO 28 Operations standards and procedures • AMSA MO 30 Prevention of Collisions. • AMSA MO 50 Special purpose vessels, such as those used for offshore drilling. • AMSA MO 58 Safe management of vessels • AMSA MO 70 Seafarer certification.	All relevant vessels (according to class) will adhere to the relevant marine orders with regard to navigation and preventing collisions in Commonwealth waters. Section 6 and 7 details the requirements applicable to vessel activities.
Biosecurity Act 2015 Biosecurity Regulations 2016 Biosecurity Amendment (Biofouling Management Regulations 2021)	Biosecurity obligations are administered by the Department of Agriculture, Fisheries and Forestry (DAFF) and include ballast water and biofouling requirements, specifically: • Pre-arrival information must be reported through MARS before arriving in Australian waters • Biofouling management plan and record book in place • Offshore Biofouling Risk Assessment Register, which considers biofouling and ballast water related risks, which may lead to IMS inspections by suitably qualified personnel • Antifouling system certification for vessels is current and in accordance with AMSA Marine Order Part 98 (Antifouling systems).	The Biosecurity Act and regulations applies to the Australian territory which includes the airspace above and coastal seas to 12 m from the coastline. The Act and regulations governs vessels entering the Australian territory regarding ballast water and hull fouling, for the activity. Biosecurity risks associated with the activity are detailed in Section 7.5.
Biosecurity (Ballast Water and Sediment) Determination 2017 and the Australian Ballast Water Management Requirements Version 8 (DAWE, 2020)	The International Convention on the Control and Management of Ship's Ballast Water and Sediment (Ballast Water Management Convention) applies to waters out to 200 nm and is given effect in Australia through the Biosecurity Act 2015, Biosecurity (Ballast Water and Sediment) Determination 2017 and the Australian Ballast Water Management Requirements. Australian Ballast Water Management Requirements including ballast water treated via a ballast water treatment system (with Type Approval Certificate) and ballast water record system will be maintained with all ballast water discharges to be reported. Vessels moving between Australian ports and offshore installations, within Australian waters, will manage ballast water in accordance with Australia's domestic ballast water requirements. The acceptable area for a ballast water exchange between an installation and an Australian port is in sea areas >500 m from the offshore installation, and >12 nm from the nearest land (as per DAWE, Australian Ballast Water Management Requirements Version 8).	Provides requirements for vessels operating within Australian seas on how vessel operators should manage ballast water to comply with the Biosecurity Act. Section 7.5 details these requirements in relation to the management of ballast water.

Ozone Protection & Synthetic Greenhouse Gas Management Act 1989	This Act regulates the manufacture, importation and use of ozone depleting substances (ODS) which are typically used in fire-fighting equipment and refrigerants.	Applies to ODS substances which are discussed within Section 6.5 of the EP.
Fisheries Management Act 1991 (& Regulations 2009)	Administered by the Australian Fisheries Management Authority's (AFMA's) to: • Implement efficient and cost-effective fisheries management on behalf of the Commonwealth • Ensure the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ESD • Maximise the net economic returns to the Australian community from the management of Australian fisheries • Ensure accountability to the fishing industry and to the Australian community in management of fisheries resources, and • Achieve government targets in relation to the recovery of the costs of AFMA.	Provides the regulatory guidelines and other mechanisms to support necessary fisheries management decisions in the event of a hydrocarbon spill in Commonwealth waters. Section 4.7.6 details Commonwealth fisheries with the potential to operate within the EMBA.
Underwater Cultural Heritage Act 2018	Protects the heritage values of shipwrecks, sunken aircraft and relics (older than 75 years) in Australian Territorial waters from the low water mark to the outer edge of the continental shelf (excluding the State's internal waterways). The Act allows for protection through the designation of protection zones. Activities / conduct prohibited within each zone is specified.	In the event of removal, damage or interference to shipwrecks, sunken aircraft or relics declared to be historic under the legislation, where the activity is proposed with declared protection zones, or there is the discovery of shipwrecks or relics. Section 4.8.1 identifies maritime archaeological heritage in the EMBA.
Native Title Act 1993 *Native Title Legislation Amendment Act 2021*	The Act has 4 main objectives: 1. Provide for the recognition and protection of native title. 2. Establish ways in which future dealings affecting native title may proceed and to set standards for those dealings. 3. Establish a mechanism for determining claims to native title. 4. Provide for, or permit, the validation of past acts, and intermediate period acts, invalidated because of the existence of native title.	Native Title or Indigenous Land Use Agreements may be present within the operational area or EMBA as detailed in Section 4.8.3.

State Legislation

Legislation	Objectives/Actions relevant to Otway Exploration Drilling Program	Application to Activity
Victoria		
Aboriginal Heritage Act 2006 (& Regulations 2018)	The primarily purpose of the Act is to provide for the protection of Aboriginal cultural heritage in Victoria. Other objectives include: • Empower traditional owners as protectors and managers of their cultural heritage on behalf of the people • Strengthen the relationship and maintain the right of Aboriginal people's connection to the land, waters and other resources • Promote respects for Aboriginal cultural heritage and contribute to its protection and sustainable development of the land and environment Through the Act the Victorian Aboriginal Heritage Council, Register Aboriginal Parties and the Victorian Aboriginal Heritage Register were established.	There is the potential for First Nations cultural heritage, and Registered Aboriginal Parties, to be located within or associated with the operational areas and EMBA. Section 4.8.2.2 identifies Victorian First Nations Heritage within the EMBA.
Environment Protection Act 2017 (& various Regulations)	Controls discharges and emissions (air, water, noise) to the environment within Victoria. It gives the Environment Protection Authority (EPA) powers to licence premises discharges to the marine environment, control marine discharges and to undertake prosecutions. Provides or the maintenance and, where necessary, restoration of appropriate environmental quality and is relevant to oil pollution in Victorian state waters. The State Environment Protection Policy (Waters of Victoria) designates: • Spill response responsibilities by Victorian Authorities to be undertaken in the event of spills (DPT) with EPA enforcement consistent with the Act and the Pollution of Waters by Oil & Noxious Substances Act 1986. • Requires vessels not to discharge to surface waters sewage, oil, garbage, sediment, litter or other wastes which pose an environmental risk to surface water beneficial uses Discharge of domestic ballast water from emergency response vessels into Victorian State waters must comply with these requirements: • To protect state waters from marine pests introduced via domestic ballast water, ballast water management arrangements applying to all ships in State and territorial waters must be observed as per the Environment Protection (Ships' Ballast Water) Regulations 2006, Waste Management Policy (Ships' Ballast Water) and the Protocol for Environmental Management. • High risk domestic ballast water (ballast water which leachates from an Australian port or within the territorial sea of Australia (to 12 nm)), regardless of the source, must not be discharged into Victorian State waters. • Ship masters must undertake a ballast water risk assessment on a voyage by voyage basis to assess risk level, provide accurate and comprehensive information to the EPA on the status and risk of ballast water contained on their ships, and to manage domestic ballast water discharges with EPA written approval.	Applied to discharges from emergency response vessels into Victorian state waters. Vessel discharges during the activity and/or spill response are managed as detailed in Section 6 and 7.
Emergency Management Act 2013	Provides for the establishment of governance arrangements for emergency management in Victoria, including the Emergency Management Commissioner and an Inspector-General for Emergency Management. Provides for integrated and comprehensive prevention, response and recovery planning, involving preparedness, operational co-ordination and community participation, in relation to all hazards. These arrangements are outlined in the Emergency Management Manual Victoria. Provides for the emergency response structure for managing emergency incidents within Victorian State waters, triggered in the event of a spill impacting or potentially impacting State waters.	Emergency response structure for managing emergency incidents within Victorian waters. Emergency management structure would be triggered in the event that a hydrocarbon spill that extends into Victorian waters. Refer to OPEP
Marine (Drug, Alcohol and Pollution Control) Act 1988	Concerns the registration of vessels, pollution of the sea, and the safe and efficient operation of vessels on State waters. Outlines the Victorian Government response structure and contingency planning arrangements that must be implemented for marine pollution incidents that occur in Victorian waters.	Applies to all vessel masters, owners, and crew that are operating vessels within Victorian State waters responding to a spill event.

Flora and Fauna Guarantee Act 1988 (& Regulations 2020)	Purpose is to protect rare and threatened species; and enable and promote the conservation of Victoria's native flora and fauna and to provide for a choice of procedures that can be used for the conservation, management or control of flora and fauna and the management of potentially threatening processes. Where a species has been listed as threatened an Action statement is prepared setting out the actions that have or need to be taken to conserve and manage the species and community.	Triggered if an incident results in the injury or death of a FFG Act listed species (e.g. collision with a whale). Action Statement controls for threatened species present in the EMBA, as adopted (as relevant) within this EP. Incident reporting requirements are detailed in Section 10.5.2 of the EP.
Heritage Act 2017	Purpose is to provide for the protection and conservation of the cultural heritage of Victoria. The Act provides procedures to identify places of state heritage significance, and of historical archaeological value and establishes processes for obtaining approvals for changes to those places.	Maritime Archaeological Heritage is described in Section 4.8.1 of the EP. Possibly triggered in the event of impacts to a known or previously un-located shipwreck in Victorian State waters whilst undertaking emergency response activities. Incident reporting requirements are detailed in Section 10.5.2 of the EP.
Marine Safety Act 2010 (& Regulations 2023)	Provides for safe marine operations in Victoria, including imposing safety duties on owners, managers and designers of vessels, marine infrastructure and marine safety equipment; marine safety workers, masters and passengers on vessels; regulation and management of vessel use and navigation in Victorian State waters; and enforcement provisions of Police Officers and the Victorian Director of Transport Safety. Reflects the requirements of international conventions - Convention on the International Regulations for Preventing Collisions at Sea & International Convention for the Safety of Life at Sea. Defines marine incidents and the reporting of such incidents to the Victorian Director of Transport Safety. Applies to vessel masters, owners, crew operating vessels in Victorian State waters.	Applies to all vessel masters, owners, and crew that are operating vessels in Victorian State waters under emergency response activities. Vessel safety operations during the activity and/or spill response are managed as detailed in Section 7.8 of the EP.
Fisheries Act 1995 (& Regulations 2019)	Provides a legislative framework for the regulation, management and conservation of Victorian fisheries including aquatic habitats.	Commercial and recreational fishing activities within Victorian jurisdiction overlapped by the operational area and EMBA are described in Section 4.7.5.4 and 4.7.7 of the EP. Impacts and risks to commercial and recreational fishing are assessed in Section 6 and 7 of the EP.
Wildlife Act 1975 (& Regulations 2013)	The purpose of this Act is to promote the protection and conservation of wildlife. Prevents wildlife from becoming extinct and prohibits and regulates persons authorised to engage in activities relating to wildlife (including incidents). The Wildlife (Marine Mammal) Regulations 2019 prescribe minimum distances to whales and seals/seal colonies, restrictions on feeding/touching and restriction of noise within a caution zone of a marine mammal (dolphins (150 m), whales (300 m) and seals (50 m).	Applies where vessels are within Victorian State waters responding to a spill event. Prescribes minimum proximity distances to whales, dolphins and seals will be maintained. Triggered if an incident results in the injury or mortality of a whale, dolphin or seal. Incident reporting requirements are detailed in Section 10.5.2 of the EP.
National Parks Act 1975 (& Regulations 2013)	Provide for the preservation and protection of the natural and cultural heritage values of parks, including marine national parks and coastal parks.	An assessment of the Victorian marine and coastal protected and sensitive areas in the EMBA environment is described in Section 4.4.6 and 4.4.7 of the EP. Reporting requirements in the event of a spill impacting or with the potential to impact State waters are detailed in the OPEP.
Pollution of Waters by Oil and Noxious Substances Act 1986 (POWBONS) (& Regulations 2022)	Established to protect the sea and other waters from pollution by oil and noxious substances. Implements the MARPOL Convention (the International Convention for the Prevention of Pollution from Ships 1973) in Victorian State waters. Requires mandatory reporting of marine pollution incidents. Within Victorian State waters it restricts the discharge of treated oily bilge water according to vessel classification (>400 tonnes); discharge of cargo substances or mixtures; prohibition of garbage disposal and packaged harmful substances; restrictions on the discharge of sewage; regulator reporting requirements for incidents; ship construction certificates and survey requirements. Section 10 (Duty to report certain incidents involving oil and oily mixtures).	Triggered in the event of a hydrocarbon spill impacting or potentially impacting state waters. Reporting requirements in the event of a spill impacting or with the potential to impact State waters is detailed in the OPEP.
Tasmania		

Environmental Management and Pollution control Act 1994 (EMPCA)	The primary environment protection and pollution control legislation in Tasmania administered by the Environment Protection Authority (EPA-Tas). Fundamental objectives are the prevention, reduction and remediation of environmental harm, focussing on preventing environmental harm from pollution and waste. Relevant regulations under the EMPCA include: •Environmental Management and Pollution Control (General) Regulations 2017 •Environmental Management and Pollution Control (Waste Management) Regulations 2010 •The EPA Division Compliance Policy provides the Director of the EPA powers of compliance.	Defines the EPA's jurisdiction during a spill event, regulates the management and control of controlled wastes and defines the fee structure to waste events and environmental protection notices. See OPEP.
Emergency Management Act 2006	Outlines the prevention, preparedness, and response and recovery procedures in order to protect life, property and the environment in a declared state emergency.	Describes emergency response structure for managing emergency incidents that occur within Tasmanian waters. Emergency management structure will be triggered in the event of a spill in or extending into Tasmanian state waters. The potential risks of unplanned events are addressed in section 7 of the EP and within the OPEP.
Marine-related Incidents (MARPOL Implementation) Act 2020 (& Regulations)	Deals specifically with discharges of oil and other pollutants from ships and gives effect in Tasmania to the MARPOL international convention on marine pollution.	Vessel discharges during the activity and/or spill response are managed as detailed in Section 6 and 7 of the EP.
Living Marine Resources Management Act 1995	Administered by Fishing Tasmania to achieve sustainable development of living marine resources having regard to the need to: • Increase the community's understanding of the integrity of the ecosystem upon which fisheries depend; and • Provide and maintain sustainability of living marine resources; and • Take account of a corresponding law; and • Take account of the community's needs in respect of living marine resources; and • Take account of the community's interests in living marine resources.	Commercial fishing activities within Tasmanian jurisdiction overlapped by the operational area and EMBA are described in Section 4.7.8 of the EP. Impacts and risks to commercial fishing are assessed in Section 6 and 7 of the EP.
Aboriginal Lands Act 1995	The Act promotes reconciliation with the Tasmanian Aboriginal community by granting Aboriginal people parcels of land with historic or cultural significance. The Aboriginal Land Council of Tasmania is established as a body corporate. The Council has the following functions: • to use and sustainably manage Aboriginal land and its natural resources for the benefit of all Aboriginal persons • to exercise, for the benefit of all Aboriginal persons, the Council's powers as owner of Aboriginal land • to prepare management plans in respect of Aboriginal land • to use and sustainably manage any other land in which the Council acquires an interest, etc.	Applies where an oil spill poses a risk to Tasmanian Aboriginal people's land protected under the Act. Section 4.8.2.1 identifies Tasmanian First Nations cultural Heritage within the EMBA.
Aboriginal Heritage Act 1975	The Act is the primary legislation for the protection of Aboriginal cultural heritage in Tasmania.	There is the potential for First Nations cultural heritage to be located within or associated with the operational areas and EMBA. Section 4.8.2.1 identifies Tasmanian First Nations cultural Heritage within the EMBA.
Crown Lands Act 1976	The Crown Lands Act is responsible for the management of Crown lands within Tasmania. Crown land is public land, managed and held in trust by the Government for the benefit of the Tasmanian community.	Applies where an oil spill poses a risk to Tasmanian Crown lands protected under the Act.
Threatened Species Protection Act 1995	Provides for the protection and management of threatened native flora and fauna and enables and promotes the conservation of native flora and fauna. The Act is administered by the Department of Primary Industries, Parks, Water and Environment (Tasmania) and provides schedules of taxa that have different categories of threatened status while establishing mechanisms for the listing and delisting of taxa.	Protected species are listed in Section 4.6 of the EP.
Nature Conservation Act 2002	An Act to make provision with respect to the conservation and protection of the fauna, flora and geological diversity of the State, to provide for the declaration of national parks and other reserved land and for related purposes	Tasmanian marine and coastal protected areas identified within the EMBA are detailed in Section 4.4.6.1 and 4.4.7.1.

Historic Cultural Act 1995	Developed to ensure that historic places that are of importance to Tasmania are recognised, protected and managed effectively as part of the Resource Management and Planning System. The Heritage Council is an independent body who is responsible for implementing the Heritage Act.	Maritime Archaeological Heritage is described in Section 4.8.1 of the EP. Possibly triggered in the event of impacts to a known or previously un-located shipwrecks in Tasmanian State waters whilst undertaking emergency response activities. Incident reporting requirements are detailed in Section 10.5.2 of the EP.
National Parks and Reserves Management Act 2002	The Department of Natural Resources and Environment, Tasmania Parks and Wildlife Service (PWS) is responsible for Reserves and Crown land, and several leases and licences in these areas. Each reserve category requires different management approaches and permit activities as described in the management objectives in Schedule 1 of the National Parks and Reserves Management Act 2022 and may be relevant in the event of a release of hydrocarbons affecting coastal waters associated with national parks and reserves.	Applies where an oil spill poses a risk to Tasmanian state parks protected under the Act. Tasmanian marine and coastal protected areas identified within the EMBA are detailed in Section 4.4.6.1 and 4.4.7.1.
South Australia		
Heritage Places Act 1993	An Act to make provision for the identification, recording and conservation of places and objects of non-Aboriginal heritage significance; to establish the South Australian Heritage Council; and other purposes. Land is defined to include land covered with water.	Maritime Archaeological Heritage is described in Section 4.8.1 of the EP. Possibly triggered in the event of impacts to a known or previously un-located underwater heritage in South Australia State waters whilst undertaking emergency response activities. Incident reporting requirements are detailed in Section 10.5.2 of the EP.
Aboriginal Heritage Act 1988	An Act to provide for the protection and preservation of the Aboriginal heritage. Land is defined to include land lying beneath inland waters or the sea.	There is the potential for First Nations cultural heritage to be located within or associated with the EMBA. Section 4.8.2.3 identifies South Australia First Nations cultural Heritage within the EMBA.
Marine Parks Act 2007 (& Regulations 2023)	Primary responsibility of the Act is to provide for a system of marine parks for the state of South Australia. Objectives include: • protect and conserve marine biological diversity and marine habitats by declaring areas and providing management • assist in the maintenance of ecological processes, the adaptation to climate change, the protection and conservation of natural and/or cultural features and provide opportunities for public education and understanding.	Applies where an oil spill poses a risk to South Australia's state marine parks protected under the Act. South Australia's marine protected areas identified within the EMBA are detailed in Section 4.4.6.3.
National Parks and Wildlife Act 1972	An Act to provide for the establishment and management of reserves for public benefit and enjoyment; to provide for the conservation of wildlife in a natural environment; and other purposes. Includes conservation of the marine environment.	Applies where an oil spill poses a risk to South Australia's state coastal parks protected under the Act. South Australia's coastal protected areas identified within the EMBA are detailed in Section 4.4.7.3.
Fisheries Management Act 2007	An Act to provide for the conservation and management of the aquatic resources and reserves of the State, the regulation of fishing and the processing of aquatic resources, the protection of aquatic habitats, aquatic mammals and aquatic resources and the control of exotic aquatic organisms and disease in aquatic resources.	Commercial fishing activities within South Australia jurisdiction overlapped by the EMBA are described in Section 4.7.9 of the EP. Impacts and risks to commercial fishing are assessed in Section 6 and 7 of the EP.
New South Wales		
Heritage Act 1977	Provides for the identification, protection, promotion and conservation of items of State heritage significance (including shipwrecks within state waters) in NSW.	Maritime Archaeological Heritage is described in Section 4.8.1 of the EP. Possibly triggered in the event of impacts to a known or previously un-located underwater heritage in NSW State waters whilst undertaking emergency response activities. Incident reporting requirements are detailed in Section 10.5.2 of the EP.
Marine Pollution Act 2012	The Act aims to protect the State's marine and coastal environment from pollution by oil and certain other marine pollutants discharged from ships.	Applies to ships involved in petroleum activities in NSW waters. Triggered in the event of a spill entering NSW state waters. Applicable requirements of the proposed activities are described in Section 7.8 of this EP
Fisheries Management Act 1994	The Act is responsible for managing the NSW fishery resource with a broad objective to conserve, develop and share the fishery resources of the State for the benefit of present and future generations.	Commercial fishing activities within NSW jurisdiction overlapped by the EMBA are described in Section 4.7.10 of the EP. Impacts and risks to commercial fishing are assessed in Section 6 and 7 of the EP.

National Parks and Wildlife Act 1974	An Act provides for the establishment, preservation and management of national parks, historic sites and certain other areas and the protection of certain Aboriginal objects.	Applicable where an oil spill poses a risk to NSW parks, reserves and fauna and flora protected under the Act. Relevant environmental and social receptors that maybe impacted by an oil spill have been identified in Section 4 of this EP. Additionally, stakeholder consultation undertaken is detailed in Section 3.
Protection of the Environment Operations Act 1997	An Act to protect, restore and enhance the quality of the environment, including the marine environment.	Applicable where oil spill poses a risk to NSW state waters and coastline. Stakeholder consultation undertaken is detailed in Section 3. Emergency response arrangements are detailed in Section 7.8 and the OPEP.
Wilderness Act 1987	The Act provides for the identification of wilderness and the protection and management of wilderness areas across the State while promoting education of the public.	Applicable where an oil spill poses a risk to NSW state waters and coastline protected under the Act. Relevant environmental and social receptors that maybe impacted by an oil spill have been identified in Section 4. Incident reporting requirements are detailed in Section 10.5.2 of the EP.

International Codes

Agreement/Convention	Objectives/Actions relevant to Otway Exploration Drilling Program
Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREGS)	Provides instruction on the rules of operating vessels at sea to ensure safe travel. The *Navigation Act 2012* and subsidiary Marine Orders give effect to the regulations in Australia.
Convention on the International Maritime Organisation 1948	Provides advice on how to efficiently and sustainably travel overseas in relation to navigation, maritime safety and marine pollution.
International Convention of Civil Liability for Oil Pollution Damage, 1969 and 1992 (CLC 69; CLC 92)	The convention provides guidance on the ships liability in the case of a maritime casualty to ensure adequate compensation for those affected.
International Convention for the Prevention of Pollution from ships, London, 1973/1978 (commonly known as MARPOL 73/78)	The convention provides guidance on the minimisation and prevention of potential and planned marine pollution associated with offshore activities. In Australia the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* and subsidiary Marine Orders give effect to MARPOL 73/78.
International Convention on Oil Pollution, Preparedness, Response and Cooperation 1990	This convention provides a framework which facilitates international co-operation and mutual assistance in preparing for and responding to major oil pollution incidents.
London Protocol and Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1996	The convention provides guidance on the prevention of marine pollution and the disposal of waste from vessels. The *Environment Protection (Sea Dumping) Act 1981* gives effect to the London Convention.
International Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989 (Basel Convention)	The convention regulates and provides instruction on the appropriate handling, export and disposal of hazardous waste. The *Hazardous Waste (Regulation of Exports and Imports) Act 1989* gives effect to the convention.
Rotterdam Convention a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals	The convention provides instruction on the responsible handling and transport and international trade of specific hazardous chemicals.
International Convention on Harmful Anti Fouling Systems 2001 (AFS Convention)	The convention provides guidance for the evaluation of a vessels condition and how to properly apply, maintain, remove and dispose of anti-fouling coatings. The *Protection of the Sea (Harmful Anti-fouling Systems) Act 2006* and subsidiary Marine Order give effect to the Convention.
International Convention on the Control and Management of Ship's Ballast Water and Sediment (Ballast Water Management Convention)	The convention provides guidance on the management of ballast water to reduce the risk of the transfer of IMS. The *Biosecurity Act 2015* gives effect to the convention.
International Maritime Organization (IMO) Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (Biofouling Guidelines)	The guidelines provide specific requirements for vessels to have a biofouling management plan and record book.
The Minamata Convention on Mercury	The convention calls on participants to protect human and environmental health from anthropogenic releases of mercury. The Convention covers control and reduction of mercury in a range of processes and industries and is relevant to end-of-life aspects such as waste and contaminated sites.
Agreement on the Conservation of Albatrosses and Petrels (ACAP)	Multilateral international agreement that coordinates activities with the purpose to conserve albatross and petrel species by mitigating threats to these populations. The agreement provides instruction for countries regarding the conservation responsibilities of albatross and petrel species.
China Australia Migratory Birds Agreement (CAMBA)	The agreement provides advice on the conservation responsibilities regarding bird species that may use the OEDP as a migratory flyway between China and Australia (East Asian-Australasian Flyway). The *EPBC Act* gives effect to CAMBA by listing migratory birds recognised by the agreement as migratory under the EPBC Act.

Japan Australia Migratory Birds Agreement (JAMBA)	The agreement provides advice on the conservation responsibilities regarding bird species that may use the OEDP as a migratory flyway between Japan and Australia (East Asian-Australasian Flyway). The *EPBC Act* gives effect to JAMBA by listing migratory birds recognised by the agreement as migratory under the EPBC Act.
The Republic of Korea Migratory Birds Agreement (ROKAMBA)	The agreement provides advice on the conservation responsibilities regarding bird species that may use the OEDP as a migratory flyway between the Republic of Korea and Australia (East Asian- Australasian Flyway). The EPBC Act gives effect to ROKAMBA by listing migratory birds recognised by the agreement as migratory under the EPBC Act.
International Convention on the Conservation of Migratory Species of Wild Animals 1979 (Bonn Convention)	The treaty provides guidance on the conservation responsibilities regarding migratory species, their habitats and migration routes. The *EPBC Act* gives effect to the Bonn convention through listing species as migratory under Part 3 of the Act
International Convention for the Regulation of Whaling 1946	This convention includes a legally binding Schedule which includes catch limits for commercial and aboriginal whaling. The International Whaling Commission is responsible for amendments to this document.
United Nations Convention of Biodiversity 1992	This convention covers biodiversity across all levels (i.e. ecosystems, species and genetic resources). There are three main objectives for the treaty: • to conserve biological diversity • to use biological components sustainably • to provide fair and equitable access to the benefits of using genetic resources
The Convention on Wetlands (Ramsar Convention) 1971	The aim of the convention is to halt the worldwide loss of wetlands and to conserve through wise use and management those that remain. The convention therefore provides a framework to enable conservation and the wise use of wetlands and their resources.
United Nations Declaration on the Rights of Indigenous Peoples 2007	The Declaration details the rights of indigenous peoples in international law and policy and contains minimum standards for the recognition, protection and promotion of these rights. This was endorsed by Australia in 2009.

Receptor Management Plans

Recovery Plans established under the EPBC Act: Set out the research and management actions necessary to stop the decline of, and support the recovery of, listed threatened species or threatened ecological communities. The aim of a recovery plan is to maximise the long-term survival in the wild of a threatened species or ecological community.

Scientific Name	Common Name	Receptor Management Plans			
		Recovery Plan / Conservation Advice	Relevant Objectives	Relevant Key Threats	Relevant Conservation Actions
Amphibians					
Litoria raniformis	Growling Grass Frog, Southern Bell Frog	National Recovery Plan for the Southern Bell Frog *Litoria raniformis*	Secure extant populations, particularly those occurring in known breeding habitats, and improve their viability through increases in size and / or area of occurrence. Address known or predicted threatening processes, and implement appropriate management practices where possible to ensure that land use activities do not threaten survival. Increase community awareness and support for conservation.	Loss and degradation of habitat	No explicit relevant management actions
				Biocides	No explicit relevant management actions
Litoria watsoni	Watson's Tree Frog	Conservation Advice for Litoria watsoni	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Litoria aurea	Green and Golden Bell Frog	Conservation Advice for Litoria aurea	No explicit relevant objectives	Changes to water quality (pollution)	No explicit relevant management actions
Heleioporus australiacus	Giant Burrowing Frog	Conservation Advice for Heleioporus australiacus	No explicit relevant objectives	Hydrological changes (pollution)	No explicit relevant management actions
Mixophyes balbus	Stuttering Frog, Southern Barred Frog (in Victoria)	Conservation advice for Mixophyes balbus	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Fish					
Sharks and Rays					
Carcharias taurus	Grey Nurse Shark (East Coast Population)	Recovery Plan for the Grey Nurse Shark (*Carcharias taurus)*	The overarching objective of this recovery plan is to assist the recovery of the grey nurse shark in the wild, throughout its range in Australian waters, with a view to: • improving the population status, leading to future removal of the grey nurse shark from the threatened species list of the EPBC Act • ensure that anthropogenic activities do not hinder the recovery of the grey nurse shark in the near future, or impact on the long term conservation status of the species	Pollution and disease	7.1 Review and assess the potential threat of introduced species, pathogens and pollutants.
				Habitat Modification	8.2 Review the level and spatial extent of protection measures at key aggregation sites to ensure appropriate levels of protection, and a consistent approach to the designation and implementation of protective measures, are applied.
					8.3 Use Biologically Important Areas (BIA) to help inform the development of appropriate conservation measures, including through the application of advice in the marine bioregional plans on the types of actions which are likely to have a significant impact on the species and updating such conservation measures as new information becomes available.
				Climate Change	No explicit relevant management actions
Carcharodon carcharias	White Shark	Recovery Plan for the White Shark (*Carcharodon carcharias)*	Continue to identify and protect habitat critical to the survival of the white shark and minimise the impact of threatening processes within these areas.	Habitat modification/degradation	No explicit relevant management actions
Centrophorus harrissoni	Harrison's Dogfish	Commonwealth Listing Advice on *Centrophorus harrissonni* (Harrison's dogfish)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Centrophorus uyato	Little Gulper Shark	Commonwealth Listing Advice on *Centrophorus zeehaani* (southern dogfish)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Galeorhinus galeus	School shark, Eastern	Commonwealth Listing Advice on *Galeorhinus galeus*	No explicit relevant objectives	Habitat degradation (specifically in school shark nursey areas)	No explicit relevant management actions
Rhincodon typus	Whale Shark	Conservation Advice *Rhincodon typus* whale shark.	No explicit relevant objectives	Vessel strike	Minimise offshore developments and transit time of large vessels in areas close to marine features likely to correlate with whale shark aggregations
				Habitat disruption	
Zearaja maugeana	Maugean skate, Port Davey skate	Approved Conservation Advice for *Raja sp. L* (Maugean Skate)	No explicit relevant objectives	No relevant threats identified to species long-term survival	No explicit relevant management actions
Fish					
Epinephelus daemelii	Black Rockcod	Approved Conservation Advice Black Cod (*Epinephelus daemelii*)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Prototroctes maraena	Australian Grayling	National Recovery Plan for Australian Grayling (*Prototroctes maraena)*	The overall objective of recovery is to minimise the probability of extinction of the Australian Grayling in the wild, and to increase the probability of important populations becoming self-sustaining in the long term.	Water Quality Pollution	Manage water quality where Australian Grayling occurs to maintain waters free of significant levels of nutrient, sediment, pesticide and other pollutants, consistent with the ANZECC guidelines for water quality (ANZECC 2000).
				IMS	No explicit relevant management actions; Invasive Marine Species - introduced fish identified as threat.

Rexea solandri (eastern Australian population)	Eastern Gemfish	Commonwealth Listing Advice on Eastern Gemfish (*Rexea solandri)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Seriolella brama	Blue Warehou	Listing Advice *Seriolella brama* Blue Warehou	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Nannoperca obscrua	Yarra pygmy perch	National Recovery Plan for the Yarra Pygmy Perch (*Nannoperca obscura*)	Identify and manage potentially threatening processes impacting on Yarra Pygmy Perch conservation.	No relevant threats identified to species long-term survival	N/A
		Approved Conservation advice for *Nannoperca obscura* (Yarra pygmy perch)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Galaxiella pusilla	Dwarf Galaxias	National Recovery Plan for the Dwarf Galaxias (Galaxiella pusilla)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
		Conservation Advice for Galaxiella pusilla (dwarf galaxias)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Brachionichthys hirsutus	Spotted handfish	Recovery Plan for Three Handfish Species	• Increase spawning success for handfish; • Reduce impacts on handfish, and their habitat; • Consider options for the active management of handfish; • Improve knowledge of the distribution, abundance and population trends of handfish; • Increase understanding of habitat health and threats to handfish habitat; and, • Encourage community participation in the conservation of handfish.	Habitat loss and degradation (pollution)	No explicit relevant management actions
Brachiopsilus ziebelli	Ziebell's handfish, Waterfall Bay handfish			Water pollution and siltation	No explicit relevant management actions
Thymichthys politus	Red handfish				
Nannoperca variegata	Variegated pygmy perch, Ewens pygmy perch, Golden pygmy	National recovery plan for the Variegated Pygmy Perch (*Nannoperca variegate*)	Identify and manage potentially threatening processes impacting on Variegated Pygmy Perch conservation.	No relevant threats identified to species long-term survival	N/A
Thunnus maccoyii	Southern Bluefin Tun	Commonwealth Listing Advice on *Thunnus maccoyii* (Southern Bluefin Tuna)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Syngnathids					
Hippocampus whitei	White's Seahorse	Conservation Advice White's Seahorse (*Hippocampus whitei)*	No explicit relevant objectives	No relevant key threats	N/A
Birds					
Acanthiza pusilla magnirostris	King Island brown thornbill, brown thornbill (King Island)	No specific recovery plan or conservation advice however the King Island Biodiversity Management Plan is adopted.	To reduce current levels of threats and risks to biodiversity on King Island	Pollution	Continue to promote and encourage responsible use of chemicals, particularly around waterways and priority threatened species sites.
Acanthornis magna greeniana	King Island scrubtit, Scrubtit (King Island)				
Aquila audax fleayi	Tasmanian wedge-tailed eagle, Wedge-tailed eagle	Threatened Tasmanian Eagles Recovery Plan 2006-2010	Reduce the occurrence of eagle mortalities and injuries (in number and proportion), particularly those attributable to human activities.	No relevant threats identified to species long-term survival	N/A
Anthochaera phrygia	Regent Honeyeater	Conservation Advice Regent Honeyeater (*Anthochaera phrygia*)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
		National Recovery Plan for the Regent Honeyeater (*Anthochaera phrygia)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A

Ardenna grisea	Sooty Shearwayer	Conservation Advice for *Ardenna grisea* (sooty shearwater).	The primary conservation objectives for the conservation advice are; • To increase the trend of Australian breeding population • The At-sea losses within Australia remain minimal	No relevant threats identified to species long-term survival	N/A
Arenaria interpres	Ruddy Turnestone	Conservation Advice for *Arenaria interpres* (ruddy turnstone)	Minimise further loss of habitat critical to the survival of common greenshank throughout Australia (including habitat predicted to become habitat critical to the survival of the species in the future because of climate change).	Acute Pollution	No explicit relevant management actions; oil pollution recognised as a threat.
				Habitat loss, disturbance and modifications	Ensure that future development projects avoid any activities that disproportionately affect the upper tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies, and site managers
Botaurus poiciloptilus	Australasian Bittern	Conservation Advice Australasian Bittern (*Botaurus poiciloptilus)*	No explicit relevant objectives	Habitat loss and degradation (reduced water quality)	No explicit relevant objectives or management actions provided.
Calidris acuminata	Sharp-tailed Sandpiper	Approved Conservation Advice for Calidris acuminata (sharp-tailed sandpiper)	Australian Objective: Minimise further loss of habitat critical to the survival of sharp-tailed sandpiper throughout Australia.	Habitat loss, degredation and fragmentation	Ensure that future development projects avoid any activities that disproportionately affect the upper tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies, and site managers
Calidris canutus	Red Knot	Conservation Advice Red Knot (*Calidris canutus)*	Minimise further loss of habitat critical to the survival of red knot throughout Australia (including habitat predicted to become habitat critical in the future because of climate change)	Acute Pollution	No explicit relevant management actions; oil pollution recognised as a threat.
				Habitat loss, disturbance and modifications	Ensure that future development projects avoid any activities that disproportionately affect the upper tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies, and site managers
Calidris ferruginea	Curlew Sandpiper	Conservation Advice Curlew Sandpiper (*Calidris ferruginea)*	No explicit relevant objectives	Habitat degradation/ modification (pollution)	No explicit relevant management actions; oil pollution recognised as a threat.
Calidris tenuirostris	Great Knot	Conservation Advice Great Knot (*Calidris tenuirostris)*	Minimise further loss of habitat critical to the survival of red knot throughout Australia (including habitat predicted to become habitat critical in the future because of climate change)	Acute Pollution	No explicit relevant management actions; oil pollution recognised as a threat.
				Habitat loss, disturbance and modifications	Ensure that future development projects avoid any activities that disproportionately affect the upper tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies, and site managers
Callocephalon fimbriatum	Gang-gang cockatoo	Conservation advice for Callocephalon fimbriatum (Gang-gang cockatoo)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Calyptorhynchus banksii graptogyne	South-eastern red-tailed black-cockatoo	National Recovery Plan for the South Eastern Red-tailed Black-Cockatoo *Calyptorhynchus banksii graptogyne*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Calyptorhynchus lathami lathami	South-eastern glossy black-cockatoo	Conservation Advice for Calyptorhynchus lathami lathami (South-eastern glossy black-cockatoo)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Ceyx azureus diemenensis	Tasmanian azure kingfisher	Listing Advice on Ceyx azureus diemenensis (Tasmanian Azure Kingfisher)	No explicit relevant objectives.	No relevant threats identified to species long-term survival	N/A
Charadrius leschenaultii	Greater Sand Plover	Conservation Advice Greater Sand Plover (*Charadrius leschenaultii)*	No explicit relevant objectives	Habitat Loss and Degradation (oil pollution)	No explicit relevant objectives or management actions provided.
Charadrius mongolus	Lesser Sand Plover	Conservation Advice Lesser Sand Plover (*Charadrius mongolus)*	No explicit relevant objectives	Habitat Loss and Degradation (oil pollution)	No explicit relevant objectives or management actions provided.
Dasyornis brachypterus	Eastern bristlebird	National Recovery Plan for Eastern Bristlebird (*Dasyornis brachypterus*)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
	• Antipodean Albatross • Gibson's Albatross • Southern Royal Albatross • Wandering Albatross • Northern Royal Albatross • Shy Albatross • White-capped Albatross • Black-browed		Overall objective: To improve the conservation status of albatrosses and petrels so that these species are on a trajectory towards no longer being threatened in Australia's jurisdiction.	Marine Pollution	Minimise the effects of marine debris, plastics and pollution: Undertake, as feasible, monitoring of breeding colonies for marine debris, plastics and marine pollution impacts including, as a priority. • incidence of oiled birds at nest • levels of marine debris egestion and entanglement at nest • effect of plastics and marine pollution • develop baseline measures of levels of heavy metals and persistent organic pollutants. Develop risk based response strategies for marine pollution incidents are developed.

Diomedea spp.	Albatross • Salvin Albatross • Campbell Albatross • Southern Giant Petrel • Northern Giant Petrel • Sooty Albatross • Buller's Albatross • Northern Buller's Albatross • Grey-headed Albatross • Indian Yellow-nosed Albatross • Chantham Albatross	National Recovery Plan for Albatrosses and Giant Petrels (2022)	Specific Strategies: • Ensure ongoing protection of albatross and petrel breeding sites and habitats in Australia's jurisdiction. • Improve effectiveness of management measures that reduce marine-based threats to albatrosses and petrels foraging in Australia's jurisdiction. • Improve understanding of generalised threats to albatrosses and petrels breeding and foraging within Australia's jurisdiction.	Marine infrastructure interactions	No explicit relevant management actions.
				Climate Variability and Change	Improve understanding of the effects of climate change on albatrosses and petrels, and identify ways to increase the resilience of the species to these effects.
Falco hypoleucos	Grey Falcon	Conservaion Advice Grey Falcon (*Falco hypoleucos)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Gallinago hardwickii	Latham's Snipe	Conservation Advice for Gallinago hardwickii (Latham's snipe)	Minimise further loss of habitat critical to the survival of common greenshank throughout Australia (including habitat predicted to become habitat critical to the survival of the species in the future because of climate change).	No relevant threats identified to species long-term survival	N/A
Grantiella picta	Painted Honeyeater	Conservation Advice Painted Honeyeater (*Grantiella picta)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Halobaena caerulea	Blue petrel	Conservation Advice *Halobaena caerulea* blue petrel	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Hirundapus caudacutus	White-throated Needletail	Conservation Advice White-throated Needletail (*Hirundapus caudacutus)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Leipoa ocellata	Malleefowl	National Recovery Plan for Malleefowl Leipoa ocellata	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Lathamus discolor	Swift Parrot	Conservation Advice Swift Parrot (*Lathamus discolor)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Limosa lapponica baueri	Nunivak Bar-tailed Godwit	Conservation Advice for Limosa *lapponica baueri* (Alaskan bar-tailed godwit)	Minimise further loss of habitat critical to the survival of grey plover throughout Australia (including habitat predicted to become habitat critical to survival in the future because of climate change).	Habitat loss, degredation and fragmentation	Ensure that future development projects avoid any activities that disproportionately affect the upper-tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies and site managers.
				Acute Pollution	No explicit management action; oil spills recognised as a threat
Limosa limosa	Black-tailed Godwit	Conservation Advice for *Limosa limosa* (black-tailed godwit).	Minimise further loss of habitat critical to the survival of common greenshank throughout Australia (including habitat predicted to become habitat critical to the survival of the species in the future because of climate change).	Habitat loss, degredation and fragmentation	Ensure that future development projects avoid any activities that disproportionately affect the upper-tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies and site managers.
				Acute Pollution	No explicit management action; oil spills recognised as a threat
Neophema chrysogaster	Orange-bellied parrot	National Recovery Plan for the Orange-bellied Parrot, Neophema chrysogaster	Sets out research and management actions to stop the decline of, and support the recovery of, listed threatened species or threatened ecological communities, with the aim of maximising long-term survival in the wild.	Barriers to movement	Assess and manage the risks from development proposals that may represent a barrier to migration or movement
Neophema chrysostoma	Blue-winged Parrot	Conservation Advice for *Neophema chrysostoma* (blue-winged parrot)	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Numenius madagascariensis	Eastern Curlew	Conservation Advice Eastern Curlew (*Numenius madagascariensis*)	Australian Objectives: Reduce disturbance at key roosting and feeding sites	Habitat loss and degradation (pollution)	No explicit relevant management actions; pollution impacts recognised as a threat.
Pachyptila turtur subantarctica	Fairy Prion (southern)	Conservation Advice Fairy Prion (*Pachyptila turtur subantarctica)*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A

Pezoporus occidentalis	Night Parrot	Conservation Advice *Pezoporus occidentalis* night parrot	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A
Pardalotus quadragintus	Forty-spotted pardalote	Conservation Advice Pardalotus quadragintus forty-spotted pardalote	No explicit relevant objectives	No relevant threats identified to species long term survival.	N/A
Pedionomus torquatus	Plains-wanderer	Conservation advice *Pedionomus torquatus* plains wander	No explicit relevant objectives	No relevant threats identified to species long term survival.	N/A
Platycercus caledonicus brownii	Green rosella (King Island)	Conservation Advice Platycercus caledonicus brownii green rosella (King Island)	No explicit relevant objectives.	No relevant threats identified to species long term survival.	N/A
Pluvialis squatarola	Grey Plover	Approved Conservation Advice for *Pluvialis squatarola* (grey plover)	Minimise further loss of habitat critical to the survival of grey plover throughout Australia (including habitat predicted to become habitat critical to survival in the future because of climate change).	Habitat Loss	Ensure that future development projects avoid any activities that disproportionately affect the upper tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies and site managers.
Pterodroma leucoptera leucoptera	Gould's Petrel	Recovery Plan Gould's Petrel (*Pterodroma leucoptera leucoptera)*	No explicit relevant objectives.	Oil spills (oceanic only)	N/A
Pterodroma neglecta neglecta	Kermadec Petrel (western)	Lord Howe Island Biodiversity Management Plan	To protect and enhance threatened fauna habitat.	Habitat Degradation / Modification	Reduce impacts of fishing and marine debris on seabirds.
Fregetta grallaria grallaria	White-bellied Storm-Petrel				
Pterodroma mollis	Soft-plumage Petrel	Conservation Advice for *Pterodroma mollis* soft-plumage petrel	No explicit relevant objectives	No relevant threats identified to species long term survival.	NA
Rostratula australis	Australian Painted Snipe	Approved Conservation Advice Australian Painted Snipe (*Rostratula australis)*	No explicit relevant objectives	No relevant threats identified to species long term survival.	NA
Pycnoptilus floccosus	Pilotbird	Conservation Advice *Pycnoptilus floccosus* (Pilotbird)	No explicit relevant objectives	Habitat loss and degradation	Actions that have indirect impacts on habitat critical to the survival should be minimised and adequately mitigated (e.g. light pollution).
Strepera fuliginosa colei	Black currawong (King Island)	Conservation Advice Strepera fuliginosa colei black currawong (King Island)	No explicit relevant objectives	No relevant threats identified to species long term survival.	N/A
Sternula nereis nereis	Australian Fairy Tern	Approved Conservation Advice Fairy Tern (*Sternula nereis nereis)*	No explicit relevant objectives	Oil spills	Ensure appropriate oil spill contingency plans are in place for the subspecies' breeding sites that are vulnerable to oil spills.
Thalassarche cauta	Shy Albatross	Conservation Advice Shy Albatross (*Thalassarche cauta)*	To ensure the long-term survival and recovery of albatross and giant petrel populations breeding and foraging in Australian jurisdiction by reducing or eliminating human related threats at sea and on land. Specific objectives: Marine-based threats to the survival and breeding success of albatrosses and giant petrels foraging in waters under Australian jurisdiction are quantified and reduced.	Marine Pollution	No explicit management actions; marine pollution, specifically marine plastics, recognised as a threat.
Thinornis cucullatus cucullatus	Eastern Hooded Plover	Conservation Advice Eastern Hooded Plover (*Thinornis cucullatus cucullatus)*	No explicit relevant objectives.	Oil Spills	Prepare oil spill response plans to ensure effective rehabilitation of oiled birds
				Entanglement and Ingestion of Marine Debris	Reduce occurrence of in-shore marine debris
Tringa nebularia	Common Greenshank	Conservation Advice for *Tringa nebularia* (common greenshank)	Minimise further loss of habitat critical to the survival of common greenshank throughout Australia (including habitat predicted to become habitat critical to the survival of the species in the future because of climate change).	Habitat loss, degredation and fragmentation	Ensure that future development projects avoid any activities that disproportionately affect the upper-tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies and site managers.
				Acute Pollution	No explicit management action; oil spills recognised as a threat
Tyto novaehollandiae castanops (Tasmanian population	Masked owl (Tasmanian)	Approved Conservation Advice for *Tyto novaehollandiae castanops* (Tasmanian Masked Owl)	No explicit relevant objectives.	No relevant threats identified to species long term survival.	N/A
Xenus cinereus	Terek Sandpiper	Approved Conservation Advice for *Xenus cinereus* (Terek sandpiper)	Australian Objective: Minimise further loss of habitat critical to the survival of terek sandpiper throughout Australia.	Habitat loss, degradation and fragmentation	Ensure that future development projects avoid any activities that disproportionately affect the upper-tidal flats and/or areas providing major foraging opportunities as identified by species experts, local studies and site managers.
Reptiles					

• *Caretta caretta* • *Chelonia mydas* • *Dermochelys coriacea* • *Eretmochelys imbricata* • *Natator depressus*	• Loggerhead Turtle • Green Turtle • Letherback Turtle • Hawksbill Turtle • Flatback Turtle	Recovery Plan for Marine Turtles in Australia	Long-term recovery objective: Minimise anthropogenic threats to allow for the conservation status of marine turtles to improve so that they can be removed from the EPBC Act threatened species list. Interim objective 3: Anthropogenic threats are demonstrably minimised.	Habitat Modification	A1: Maintain and improve efficacy of legal and management protection •Manage anthropogenic activities to ensure marine turtles are not displaced from identified habitat critical to the survival as per section 3.3 Table 6. •Manage anthropogenic activities in Biologically Important Areas to ensure that biologically important behaviour can continue.
				Vessel Disturbance	Vessel interactions identified as a threat; no specific management actions in relation to vessels prescribed in the plan.
				Light Pollution	A8. Minimise light pollution. •Artificial light within or adjacent to habitat critical to the survival of marine turtles will be managed such that marine turtles are not displaced from these habitats. •Develop and implement best practice light management guidelines for existing and future developments adjacent to marine turtle nesting beaches. •Identify the cumulative impact on turtles from multiple sources of onshore and offshore light pollution.
				Pollution (persistent toxic pollutants)	A4. Minimise chemical and terrestrial discharge.
				Marine Debris	A3. Reduce the impacts from marine debris. •Support the implementation of the EPBC Act Threat Abatement Plan for the impacts of marine debris on vertebrate marine life.
				Noise Interference	B3. Assess and address anthropogenic noise. •Understand the impacts of anthropogenic noise on marine turtle behaviour and biology.
Dermochelys coriacea	Leatherback Turtle	Approved Conservation Advice Leatherback Turtle (*Dermochelys coriacea)*	No explicit relevant objectives	Marine Debris	No explicit management actions; marine debris recognised as a threat.
				Vessel Strike	No explicit management actions; vessel strike recognised as a threat.
				Habitat Degradation	Identify and protect migratory corridors between nesting beaches and common foraging areas to facilitate colonization.
Marine Mammals					
Low-Frequency (LF) Cetaceans					
Balaenoptera borealis	Sei Whale	Conservation Advice Sei Whale (*Balaenoptera borealis)*	No explicit relevant objectives	Noise Interference	Once the spatial and temporal distribution (including biologically important areas) of sei whales is further defined an assessment of the impacts of increasing anthropogenic noise should be undertaken.
				Vessel Strike	• Develop a national vessel strike strategy that investigates the risk of vessel strikes on Sei Whales and also identifies potential mitigation measures. • Ensure all vessel strike incidents are reported in the National Vessel Strike Database
				Habitat Degradation (including pollution)	No explicit relevant management actions; pollution identified as a threat
Balaenoptera musculus	Blue Whale	Conservation Management Plan for the Blue Whale - A Recovery Plan under the EPBC Act 1999	The long-term recovery objective is to minimise anthropogenic threats to allow the conservation status of the Blue Whale to improve so that it can be removed from the threatened species list under the EPBC Act.	Vessel Strike	A4: Minimise vessel collisions Develop a national vessel strike strategy that investigates the risk of vessel strike on blue whales and also identifies potential mitigation measures. Ensure all vessel strike incidents are reported in the National Ship Strike Database. Ensure the risk of vessel strikes on blue whales is considered when assessing actions that increase vessel traffic in areas where blue whales occur and, if required, appropriate mitigation measures are implemented.
				Habitat Modification	No explicit relevant objectives or management actions identified
				Noise Interference	A2: Assess and address anthropogenic noise: shipping, industrial and seismic noise.
Balaenoptera physalus	Fin Whale	Conservation Advice Fin Whale (*Balaenoptera physalus)*	No explicit relevant objectives	Noise Interference	Once the spatial and temporal distribution (including biologically important areas) of Fin Whales is further defined, assess the impacts of increasing anthropogenic noise should be undertaken on this species.
				Vessel Strike	• Develop a national vessel strike strategy that investigates the risk of vessel strikes on Sei Whales and also identifies potential mitigation measures. • Ensure all vessel strike incidents are reported in the National Vessel Strike Database
				Pollution (persistent toxic pollutants)	No explicit relevant management actions; pollution identified as a threat
		Conservation Management Plan for the Southern Right Whale - A Recovery Plan under the EPBC Act 1999 (DSEWPaC 2012b)	Long term recovery objective: To minimise anthropogenic threats to allow the conservation status of the southern right whale to improve so that it can be removed from the threatened species list under the EPBC Act.	Noise Interference	A2: Assess and address anthropogenic noise: shipping, industrial and seismic noise.
				Habitat Modification	Resulting from acute chemical discharge as a low risk threat, with no explicit relevant objectives or management actions identified
				Vessel Strike	A5: Address vessel collisions: Develop a national ship strike strategy that quantifies vessel movements within the distribution ranges of southern right whales and outlines appropriate mitigation measures that reduce impacts from vessel collisions
				Entanglement in Marine Debris	No explicit relevant management actions; entanglement in marine debris identified as a threat.

Eubalaena australis	Southern Right Whale	Draft Recovery Plan for the Southern Right Whale under the EPBC Act 1999 (CoA 2022)	Interim recovery objective: Current levels of Commonwealth and State legislative and management protection are implanted, maintained, or improved to continue management of threats Management of Anthropogenic threats are consistent with ecologically sustainable development principles and do not impede recovery Monitoring eastern and western population demographics to increase abundance, areas of occupancy, and habitat Clearly characterise population structure in Australian waters, including the level of interchange of individuals, evaluate the degree which western and eastern populations are separate populations Improve the capability of Indigenous Australian, research, citizen science and general community groups addressing recovery actions	Entanglement in Marine Debris	A4: Reduce entanglements from commercial active or discarded fishing gear throughout the species' range in Australian Waters Promote and support commercial fishing industries, government, and research collaborations that address alternate fishing techniques, gear modifications and/or management arrangements to reduce the ris of entanglements from active or discarded fishing gear. Developed, update, and promote industry Codes of Practice, specific to each relevant fishery, to address the threat of whale entanglement in fisher gear in BIAs and HCTS Improve standardised and coordinated recording and reporting of entanglements and data sharing of fisheries interactions with whales between industry, government, and research bodies
				Habitat degradation	A2: Address habitat degradation impacts from coastal and offshore marine infrastructure developments within the species' range Coastal and offshore development actions are assessed according to principles of ecological sustainable development to ensure the risk of injury and/or disturbance to Southern Right Whales is minimised. Inform planning, assessment, and decision-making on marine infrastructure development actions by using current information on species' occurrence, HCTS, BIAs, and historic high use areas
				Noise Interference	A5: Assess and Address impacts to Southern Right Whales from anthropogenic underwater noise Improve baseline understanding of acoustic communication Quantify risks of anthropogenic underwater noise, including: behavioural disturbance, changes to vocalisations, and physiological effects to whales Improve understanding and characterisation of marine soundscapes, including the application of new technologies for data processing, within BIAs to facilitate quantification of anthropogenic noise int he marine soundscape
				Vessel Strike	A6: Manage, minimise, and mitigate the threat of vessel strike within BIAs and HCTS Assess risk of vessel strike in BIA's Improve understanding of behavioural response in close vicinity to vessels in BIAs Ensure EIA and associated plans consider and quantify the risk of vessel strike Ensure all vessel strike incidents are reported
				Pollution	No explicit relevant management actions; pollution identified as a threat.
Pinnipeds					
Neophoca cinerea	Australian sea-lion, Australian sea lion	Conservation Advice *Neophoca cinerea* Australian Sea Lion	Mitigate the impacts of marine debris on Australian Sea Lion populations. Investigate and mitigate other potential threats to Australian Sea Lion populations, including disease, vessel strike, pollution, and tourism. Continue to develop and implement research and monitoring programs that provide outputs of direct relevance to the conservation of the Australian Sea Lion.	Entanglement in Marine Debris	No explicit relevant management actions; entanglement in marine debris identified as a threat.
				Noise interference	No explicit relevant management actions; noise interference identified as a threat.
				Habitat degradation (pollution))	All vessels to have oil spill mitigation measures in place and implement jurisdictional oil spill response strategies as required.
		Recovery plan for the Australian sea-lion (Neophoca cinerea)	Objective of this recovery plan is to halt the decline and assist the recovery of the Australian sea lion throughout its range in Australian waters by increasing the total population size while maintaining the number and distribution of breeding colonies	Pollution and oil spills	Where necessary mitigate the threat posed to Australian sea lion populations by vessel strike, pollution and oil spills. Actions to include: • develop protocols for collection of biological samples and ensure that a portion of each sample (including those already collected) is centrally archived • collect data on direct killings and confirmed vessel strikes • implement jurisdictional oil spill response strategies as required.
Mirounga leonina	Southern elephant seal	Conservation Advice *Mirounga leonina* Southern elephant seal	No explicit relevant objectives	Pollution (including marine debris)	Receive accurate and timely reports of interactions with the species, whether the interaction is lethal or not, as well as opportune information on impact of marine debris or pollution events, may prompt responsive mitigation measures or initiate management responses even at the remote sites where the species is found.
		Sub-Antarctic Fur Seal and Southern Elephant Seal Recovery Plan	Ensure that any future anthropogenic impacts are not limiting their recovery	Marine pollution (including oil and non-biodegradable debris	No explicit relevant management actions.
Other					
Miniopterus orianae bassanii	Southern Bent-wing Bat	*Conservation Advice* Miniopterus orianae bassanii *Southern Bent-wing Bat*	No explicit relevant objectives	No relevant threats identified to species long-term survival	N/A

Other Relevant Guidance

Other Relevant Guidance	Objectives/Actions relevant to Otway Exploration Drilling Program
Fisheries Plans	
Orange Roughy (*Hoplostethus atlanticus*) Stock Rebuilding Strategy 2022	Primary objective is to return all orange roughy stocks to levels where they can be harvested in an ecologically sustainable manner consistent with the Commonwealth Fisheries Harvest Strategy Policy and to ultimately maximise the economic returns to the Australian community. No relevant threats identified to species long term survival.
Blue Warehou (*Seriolella brama*) Stock Rebuilding Strategy 2014	The strategy aims to rebuild the stocks to their biomass limit reference point (AFMA, 2014). No relevant threats identified to species long term survival.
Giant Crab Management Plan (Vic) 2010	Sets out arrangements to manage the commercial catch at levels that prevents overfishing, allows stocks to rebuild and reduces the risk of lower stock abundance. Identifies three main management objectives, being: • Sustainability of the giant crab resource • Resource access and utilisation • Cost-effective and participatory management. No relevant threats identified to species long term survival.
Victorian Rock Lobster Fishery Management Plan (Vic) 2017	Identifies five objectives for the rock lobster fishery: • Ensure the sustainability of the rock lobster resource. • Ensure a fair and equitable allocation of the rock lobster resource. • Ensure optimal economic utilisation of the rock lobster resource. • Cost-effective and participatory management • Maintain the ecological integrity of the fishery ecosystem. No relevant threats identified to species long term survival.
National and State Plans	
National Plan for Maritime Emergencies (NatPlan) (AMSA, 2000)	Implements Australia's obligations under the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969; United Nations Convention on the Law of the Sea, 1982; the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990; and the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 with respect to the management of maritime environmental emergencies.
State Maritime Emergencies (non-search and rescue) Plan (Victoria) (EMV, 2013)	Applies to Maritime Emergencies (non-search and rescue) including marine pollution which results, or may result, in a prohibited discharge into state waters of oil, an oily mixture, or an undesirable substance. • Provides the Victorian Marine Pollution Contingency Plan in accordance with the Marine (Drug, Alcohol and Pollution Control) Act 1988 (the Act). • Gives effect to Victoria's obligations under the National Plan for Maritime Environmental Emergencies and Intergovernmental Agreements. • Provides the State Emergency Response Plan Maritime Emergencies (NSR) Sub-plan in accordance with the Emergency Management Act 2013. • Provides strategic guidance for the effective management of maritime emergencies specifically addressing marine pollution (including oil and hazardous noxious substances) and/or maritime casualty NSR.
Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan) (EPA-Tas, 2022)	Documents the arrangements and procedures for prevention, preparedness, response, and recovery from a marine pollution event in Tasmanian waters. As a State plan, it sits within the national framework under the National Plan for Maritime Environmental Emergencies (NatPlan) and in accordance with the Intergovernmental Agreement (IGA) on the National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances. It is as an Associated Plan to the Tasmanian Emergency Management Arrangements (TEMA).
Plans and Policy Statements established under the EPBC Act	
South-east Commonwealth Marine Reserves Network Management Plan 2013-23 (DNP, 2013) – expiring June 2023	Outlines management strategies for research and monitoring, assessment and permitting, compliance, community participation, Indigenous involvement and environmental management. Identifies pressures on the conservation values of the South-east Commonwealth Marine Reserves Network including: • Noise pollution associated with shipping, other vessels and offshore mining operations and offshore construction. • Oil pollution associated with shipping, other vessels and offshore mining operations. • Invasive species and diseases translocated by vessels. • Light pollution associated with offshore mining operations and other offshore activities, and • Marine debris. Provides management strategies and actions to achieve objectives of the plan.

Wildlife Conservation Plan for Seabirds (DCCEEW, 2020)	Identifies objective 2: Seabirds and their habitats are protected and managed in Australia. Identifies resource extraction including collision with structures, oiling and incineration by flares; Implementing a comprehensive monitoring program of impacts of these offshore platforms should include nature, timing and extent of bird mortality caused by these structures. This information can then be used to better inform regulators responsible for exploration and extraction proposals; Proposals for oil and mineral exploration and exploitation should be adequately assessed and, as appropriate, conditions imposed to ensure there are no adverse effects on seabirds or their habitats. Acute pollution such as oil spill is explicitly identified as a direct and moderate threat to seabirds. Identifies pollution, including marine debris, lighting and acute pollution (given they spend much of their time on the sea surface, are vulnerable to the hazards of oil or fuel spills and are difficult to rehabilitate) as moderate threats with relevant actions: • Manage the effects of anthropogenic disturbance to seabird breeding and roosting areas. • Enhance contingency plans to prevent and/or respond to environmental emergencies that have an impact on seabirds and their habitats.
Wildlife Conservation Plan for Migratory Shorebirds (DoE, 2015b)	The background paper to the plan identifies acute pollution such as oil spill as a moderate threat to migratory shorebirds not due to direct contact but rather through impacting important habitat for many years through catastrophic loss of marine benthic food sources. No explicit relevant objectives or management actions.
Threat Abatement Plan for the Impacts of Marine Debris on Vertebrate wildlife of Australia's coasts and oceans (DoEE, 2018b)	Address key threatening processes listed under section 183 of the EBPC Act. Details harmful marine debris impacts on a range of marine life, including protected birds, sharks, turtles) and marine mammals. DoEE (2018) defines harmful marine debris to include all plastics and other types of debris from domestic or international sources that may cause harm to vertebrate marine wildlife. This includes land sourced plastic garbage (e.g. bags, bottles, ropes, fibreglass, piping, insulation, paints and adhesives), derelict fishing gear from recreational and commercial fishing activities and ship-sourced, solid nonbiodegradable floating materials lost or disposed of at sea.
EPBC Act Policy Statement 2.1 – Interactions between Offshore Seismic Exploration and Whales: Industry Guideline	Provides practical standards to minimise the risk of acoustic injury to whales in the vicinity of seismic survey operations and provides a framework that minimises the risk of biological consequences from acoustic disturbance from seismic sources to whales in biologically important habitat areas or during critical behaviours. Although these guidelines are specifically designed for seismic survey interactions with cetaceans, some of the provisions may also afford protection for marine species during survey and drilling activities (DEWHA, 2008).
Government Guidelines, Guidance Notes and Information Papers	
National Light Pollution Guidelines for Wildlife (DCCEEW, 2023)	Aims to manage artificial light so wildlife is: • Not disrupted within, nor displaced from, important habitat • Able to undertake critical behaviours such as foraging, reproduction and dispersal. Recommend using best practice lighting design to reduce light pollution and minimise the effect on wildlife and undertaking an environmental impact assessment for effects of artificial light on listed species for which artificial light has been demonstrated to affect behaviour, survivorship or reproduction.
National biofouling management guidelines for the petroleum production and exploration industry (DAFF, 2009)	Includes the following for operators of petroleum industry related vessels, equipment and infrastructure: • Evaluation of biofouling risk of types of structures/facilities • Guidance on biofouling management and decommissioning • Recording and reporting. Aligns with the IMO Biofouling Guidelines.
National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna (DoEE, 2017a)	Objectives are to acquire data, determine risks of vessel strike and identify mitigation measures, with the target audience being government agencies responsible for the regulation of marine fauna or vessel activities, industry and those involved in policy development or managing activities in the marine environment.

2011 Guidelines for the Control and Management of Ships Biofouling to Minimise the Transfer of Invasive Aquatic Species (the IMO Biofouling Guidelines) (IMO, 2011)	Provides internationally agreed guidance on how to minimise biofouling on vessels through application of biofouling prevention measures and hull husbandry practices provide a basis upon which operators can develop a vessel-specific biofouling management plan (BFMP) which: • Provides specific details of the antifouling technology used, including antifouling paints and MGPS and how and when they are operated where relevant. • Describes the operating conditions suitable for the chosen technology. • Describes the operational profile of the vessel including operating speeds and time spent stationary. • Provides details of the areas of the hull that are particularly susceptible to biofouling, such as niche areas, and how the technology applied addresses this increased risk. • Provides information relating to the schedule of planned inspections, repairs, maintenance, inspection, and renewal of antifouling systems as well as circumstances by which opportunistic inspection to monitor efficacy might occur. • Describes the documentation required to verify any treatments and activities recorded in the biofouling record book.
Marine Pest Plan 2018-2023: National Strategic Plan for Marine Pest Biosecurity (2018-2023) (CoA, 2018)	Provides Australia's national strategic plan for marine pest biosecurity and outlines a coordinated approach to building Australia's capacity to manage the threat of marine pests over five years. The key relevant objective is to minimise the risk of marine pest introduction, establishment and spread.
Reducing marine pest biosecurity risks through good practice biofouling management (IP1899, NOPSEMA, 2022)	NOPSEMA Information Paper intending to: • Clarify biosecurity requirements relevant to offshore activities. • Provide coordinated good practice advice that is consistent with the expectations of all jurisdictions responsible for regulating biofouling management within the Australian marine environment. • Support the industry's contribution to marine pest risk management consistent with Australia's Marine Pest Plan 2018-2023 (CoA 2018).
Marine Biosecurity Management of Vessels Servicing the Offshore Industry (MIAL, 2020)	Reference case developed by Maritime Industry Australia Ltd (MIAL) for use in the development of Environment Plans by titleholders for offshore resource activities located in Commonwealth waters. Applies to vessels used in the offshore resources industry, and not to offshore installations or trading ships.
Acoustic impact valuation and management (N-04750-IP1765 A625748, NOPSEMA, 2020)	Provides advice to titleholders to assist with preparing EPs with a particular focus on the components of an EP that relate to detailing, evaluating and managing impacts from acoustic emissions. Developed for seismic surveys, but with learnings for all offshore activities.
ALARP and Acceptable for environmental impacts and environmental risks (Fact Sheet , NOPSEMA, 2020)	Sets out NOPSEMA's considerations for determining whether impacts or risks are as low as reasonably practicable (ALARP) and acceptable.
Environment plan decision making guideline (NOPSEMA, 2022)	Set out NOPSEMA's considerations in making decisions in accordance with the legislated criteria relevant to EPs. This guideline: • Communicates the key factors that influence NOPSEMA's decision making in relation to decision making criteria for acceptance criteria for EPs (r 10A). • Includes interpretation arising from the Federal Court appeal decision Santos NA Barossa Pty Ltd v Tipakalippa [2022] as it relates to NOPSEMA's decision making under R10A. • Provides information for proponents and stakeholders to understand NOPSEMA's regulatory decision making. • Imparts transparency on the way in which NOPSEMA's EP regulatory decisions are made.
Environment Plan Assessment (: N-04750-PL1347 A662608, NOPSEMA, 2020)	Describes NOPSEMA's administration of the regulations that relate to environment plans (EPs) to ensure a documented, systematic and consistent approach to assessment and decision-making.
Control measures and performance standards (N-04300-GN0271 A336398, NOPSEMA, 2020)	Part of a series of documents that provide guidance on the preparation of safety cases for Australia's offshore facilities, as required under the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009 (the OPGGS(S) Regulations) and the corresponding laws of each State and of the Northern Territory
Consultation in the Course of Preparing an Environment Plan (N-04750-GL2086, NOPSEMA, Updated May 2023)	Supports clarity and transparency on the legal requirements, including recent case law, for consultation by titleholders in the course of preparing their Environment Plans prior to submission to NOPSEMA. The guideline will also support clarity and transparency around what NOPSEMA will take into consideration when assessing and deciding whether the consultation requirements of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations) have been met.
Responding to public comment on environment plans guidance note (-GN1847, NOPSEMA, 2022)	Provides assistance to titleholders in understanding the public comment process for exploratory drilling EPs. It applies solely to EPs prepared for assessment under the Environment Regulations.
Environment plan content requirements guidance note (N1344, NOPSEMA, 2020)	Interprets the EP content requirements that need to be met and demonstrated under the Environment Regulations and provides advice in relation to EP content requirements, the regulatory intent of content requirements, core concepts that are fundamental to each key content requirement and associated EP content considerations.
Notification and reporting of environmental incidents (N-03000-GN0926 A710941, NOPSEMA, 2020)	Sets out the legal obligations under the Offshore Petroleum Greenhouse Gas Storage (Environment) Regulations 2009 to report incidents to NOPSEMA within a specified period of time, depending on the impact or potential impact to the environment.
Oil pollution risk management (GN1488, NOPSEMA, 2021)	Provides titleholders with clarification on the regulatory requirements for oil pollution risk assessment as well as the content and level of detail required in an oil pollution emergency plan (OPEP).

Oil Spill Modelling (Environmental Bulletin, NOPSEMA, 2019)	Provides clarification for titleholders regarding the application and interpretation of oil spill modelling presented in environment plans. This is required to promote good practice and ensure that the community is better informed about the purpose and interpretation of oil spill modelling and to ensure the outputs of oil spill modelling are meaningful.
Source control planning and procedures information paper (IP1979, NOPSEMA, 2021)	Describes NOPSEMA expectations with regards to source control planning content of the Environmental Plan (EP), Well Operating Management Plan (WOMP) and the Source Control Emergency Response Plan (SCERP), and to describe the regulatory assessment focus of the EP and WOMP and the compliance monitoring inspection process and focus of the SCERP.
Operational and scientific monitoring programs information paper (IP1349, NOPSEMA, 2020)	Provides information and general advice to assist titleholders to plan for and implement Operational and Scientific Monitoring Programs (OSMPs) for oil spills from offshore activities. More specifically, this Information Paper: • Sets out general principles and practical advice to assist titleholders in their planning for, and application of, fit-for-purpose OSMPs. • Addresses findings and recommendations of the Montara Commission of Inquiry, and implements the Final Australian Government Response to the Inquiry in relation to environmental monitoring for petroleum activities • Incorporates lessons learned from recent marine oil spills, where relevant; and • Captures information relevant to matters protected under the EPBC Act.
Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species (DEE, 2017)	Developed under EPBC Act Policy Statement 3.21 to assist proponents in avoiding, assessing and mitigating significant impacts on migratory shorebirds listed under the EPBC Act, and is a key action under the Wildlife Conservation Plan for Migratory Shorebirds. Identifies that direct mortality of birds may result from a variety of activities including oils spills and actions that introduce risk of mortality in important habitat may result in a significant impact to shorebirds.
Cumulative impact assessment guidelines for state significant projects (NSW, 2022)	Aims to strengthen project-level cumulative impact assessment (CIA) for significant projects (in NSW). Provides general guidance on processes to consider impacts from a proposed project in combination with other future projects that are anticipated or reasonably foreseeable.
Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects (UK, 2019)	Sets out a staged process for conducting cumulative impact assessment by: • Establishing the long list of other existing development and/or approved development • Establishing a short list of other existing development and/or approved development • Gathering information on location, design, program activities and environmental assessments • Conducting the assessment and evaluating significance • Describing mitigation and monitoring measures.
Industry Guidelines	
Environmental management in the upstream oil and gas industry (IOGP-IPIECA, 2020)	Provides a detailed overview of environmental management practices in the upstream oil and gas industry, with the primary focus on managing risks from potential impacts to the natural environment during exploration and production of oil and gas.
Environmental, Health and Safety Guidelines for Offshore Oil and Gas Development (World Bank Group, 2015)	Includes information relevant to exploratory drilling and ancillary and support operations including industry-specific impacts and management for e.g. air emissions, wastewater discharges, noise generation, spills, etc. They also address potential onshore impacts that may result from offshore oil and gas activities.
Environmental Manual for Worldwide Geophysical Operations (IAGC, 2013)	Provides guidance for all kinds of geophysical surveys (including seabed surveys). Of particular relevance are Section 8.4 (Travel – water travel) – maintain a lookout for, and establish communications with local fishing boats, tourist diving vessels, etc, where possible to minimise interruption with their operations and equipment.
Aerial Observations of Marine Oil Spills Technical Information Paper (ITOPF, 2011)	Presents advice and guidance on conducting effective aerial reconnaissance which are an important element of an effective response to most oil spills, for assessing the location and extent of contamination and verifying predictions of the movement and fate of oil slicks at sea. Aerial surveillance provides information facilitating deployment and control of operations at sea, the timely protection of sites along threatened coastlines and the preparation of resources for shoreline clean-up.
Aerial Observations of Oil Spills at Sea Good Practice Guideline (IPIECA/OGP, 2015)	Summarises a consensus of industry and government viewpoints on Aerial Observations of Oil Spills at the time of writing, to detect, characterise and quantify spilled oil that may be present in a range of settings (on-water, in-water and onshore). This enables the incident command to effectively determine the scale and nature of the oil spill incident, make decisions on where and how to respond, control various response operations and, over time, confirm whether or not the response is effective.
In-water Surveillance of Oil Spills at Sea Good Practice Guidelines (IPIECA/ IOGP, 2016)	Summarises current views on good practice for a range of oil spill preparedness and response topics to help align industry practices and activities, inform stakeholders, and serve as a communication tool to promote awareness and education. Topics include surveillance, subsea response, communicating data and information and innovations and future developments.
Contingency Planning for Oil Spills on Water Good Practice Guidelines (IPIECA/IOGP, 2015)	Provides guidance on the contingency planning process for potential oil spills in or on water following an accidental release of oil to a marine or aquatic environment, whether that be during the handling, transport, production or storage of oil products.
Case Law	

Tipakalippa v National Offshore Petroleum Safety and Environmental Management Authority (No 2) [2022] FCA 1121 (Primary Decision) Santos NA Barossa Pty Ltd v Tipakalippa [2022] FCAFC 193 (Appeal Decision)	On 21 September 2022, Justice Bromberg handed down his judgement in the Primary Decision. One of the issues covered in the judgement was how titleholders should identify the "universe of relevant persons" that may fall within section 11A(1) of the Environment Regulations. The process of identifying relevant person(s) is the first step in fulfilling the requirements of section 11A of the Environment Regulations. As stated in the Primary Decision, determining who falls within the description of (a), (b), (c) and (e) is a "relatively straightforward exercise" (para. 136 of the Primary Decision). However, the description of a relevant person in (d) can raise "substantial complexity" (para. 137 of the Primary Decision) as: • The number of persons falling within the description may be very large and in numerous categories • The words "functions, interests or activities" must be construed with their intended meaning, and • The nature and extent of any potential effect upon the "functions, interests or activities" or particular persons or the categories of particular persons may be difficult to assess. Based on the Appeal Decision and NOPSEMAs subsequent Guidance Document (Consultation in the Course of Preparing an Environment Plan, N-04750-GL2086, NOPSEMA, Updated May 2023), the phrase "functions, interests or activities" should be constructed broadly as it best promotes the objects of the Environment Regulations, including that activities are carried out in a manner consistent with the principles of Ecologically sustainable Development (ESD). The phrase is a composite one, each part of which has work to do in identifying relevant persons. The meaning of each part of the phrase is defined in NOPSEMAs Guidance Document as follows: • Functions – refers to "a power or duty to do something" (para. 60 of Appeal Decision); • Interests – to be construed as conforming with the accepted concept of "interest" in other areas of public administrative law. Includes "any interests possessed by an individual whether or not the interest amounts to a legal right or is a proprietary or financial interest or relates to reputation" (para. 63 & 65 of Appeal Decisions); and • Activities – to be read broadly and is broader than the definition of 'activity' in Regulation 4 of the Environment Regulations and is likely directed to what the relevant person is already doing (para. 51, 58 and 59 of Appeal Decision). A methodology has been developed to accurately and transparently determine the relevant person(s) associated with the Otway Exploration Drilling Program, including those whose functions, interests, or activities as per (d) may be affected by the proposed activities. This methodology also includes an identification of those relevant person(s) that fall under (a), (b), (c) and (e) of Regulation 11A(1) of the Environment Regulations. For the purpose of this EP, and in accordance with NOPSEMAs Guidance Document, the process of identifying relevant persons under Regulation 11A(1)d) has encompassed the concept of 'Decisional Choice' of which individuals/organisations may have functions, interests or activities in the activities proposed to be undertaken as part of this EP.

CIA Scoping Tool

Environmental Component	Sub-Component	Environmental Aspect (yellow = drilling specific)									CIA Scoping					
		Physical Presence	Seabed Disturbance	Artificial Light - Operational	Artificial Light - Flaring	Atmospheric Emissions	Underwater Sound - Continuous	Underwater Sound - Impulsive	Routine Discharges	Drilling Discharges	Acceptable Levels (Effect) Ecological integrity and biodiversity conservation (Temporary/reversible/recoverable, small scale and/or low intensity) Assessing scale and nature	Potential for Cumulative Impact - Spatial Extent	Potential for Cumulative Impact - Temporal Extent	Predictability and Certainty	Scoping Assessment Outcome	Cumulative Cause-effect Pathway
Physical Environment	Water Quality		✓						✓	✓	Temporary, small-scale and recoverable impacts.	N - Limited to individual activity discharge location	N - Limited to duration of individual activity	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance, drilling and routine discharges (Sections 6.3, 6.8 and 6.9) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Impacts to water quality from COPA's and other potential activities are predicted to rapidly disperse given the open ocean environment and prevailing currently within 500 m to 2 km of the discharge, thus there is no potential to accumulate over spatial or temporal scales.	None identified
	Sediment Quality		✓							✓	Temporary, small-scale and recoverable impacts.	N - Limited to individual activity discharge location	N - Limited to months - year after individual activity	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance and drilling discharges (Sections 6.3 and 6.8) which highlights the limited spatial and temporal nature of the aspects. Successive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified but impacts not material. No impacts to sediment quality are predicted for seismic surveys conducted by other operators. Impacts to sediment quality from COPA's and other drilling activities are predicted to be localised within 500 m of each well. Though there is the potential for an increase in the area of potential impact as each area is very small (500 m) material impacts are not predicted.	Identified but impacts not material. No further assessment required.
	Air Quality					✓					Temporary, small-scale and recoverable impacts.	N - Limited to individual activity discharge location	N - Limited to duration of individual activity	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of atmospheric emissions (Section 6.5) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Impacts to air quality from COPA's and other potential activities are predicted to be localised and atmospheric emissions will rapidly disperse to background levels close to the emissions source given the open ocean environment and prevailing wind. Emissions are not predicted to affect the achievement of the National Environmental Protection Measure for Ambient Air Quality (NEPM AQQ) (NEPC 2021) protection goals., with no potential to accumulate over spatial or temporal scales.	None identified
	Climate					✓					Small-scale and low intensity impacts.	N - Global climate	N - Indeterminable	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of atmospheric emissions (Section 6.5) which highlights the limited spatial and temporal nature of the aspects. Although GHG emissions from COPA's and other reasonably foreseeable activities will add to the global atmospheric levels of GHG emissions, the quantities estimated to be released are insignificant on a global scale.	None identified
	Ambient Light - Operational			✓							Temporary, small-scale and recoverable impacts.	Y - Bioregion, BIAs and biologically important behaviours for sensitive species	Y - Consecutive activities, and seismic and single drilling operation may occur concurrently	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of light emissions (Section 6.4) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified. Although changes in ambient light are restricted to typically 20 km radius of individual activities, activities may occur consecutively over a number of years within the Otway Basin and seismic and drilling at a single location have the potential to occur concurrently	Identified from COPA's and other reasonably foreseeable activities with further assessment required to determine if impacts are material.

	Ambient Light - Flaring			✓	✓					Temporary, small-scale and recoverable impacts.	N - Only single drilling operation at any one time	Y - Consecutive activities if others are flaring in similar location	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of light emissions (Section 6.4) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified. There is potential for cumulative impacts depending on location of activities and sensitive receptors from COPA's and other potential activities. Although flaring light impacts are restricted to typically 50 km radius of individual short-term operations (max. 120 hours per well), flaring may occur consecutively over a number of years within the Otway Basin.	Identified from COPA's and other potential activities with further assessment required to determine if impacts are material.
	Ambient Sound						✓	✓		Temporary, small-scale and recoverable impacts.	Y - Bioregion, BIAs and biologically important behaviours for sensitive species	Y - Consecutive activities Seismic and single drilling operation may occur concurrently	Moderate for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of underwater sound - continuous and impulsive (Sections 6.6 and 6.7) which highlights the limited spatial and temporal nature of the aspects. There is potential for successive and additive cumulative impacts depending on location and timing of activities and sensitive receptors from COPA's and other reasonably foreseeable activities. Although sound impacts are restricted to within typically 10s of kms around individual activities, activities may be occurring consecutively over a period of time and seismic and drilling (at a single location) have the potential to occur concurrently.	Identified from COPA's and other reasonably foreseeable activities with further assessment required to determine if impacts are material.
	Benthic Habitats and Communities		✓						✓	Temporary, small-scale and recoverable impacts.	N - Limited to individual activity area	N - Limited to weeks-months after individual activity	High in individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance and drilling discharges (Sections 6.3 and 6.8) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. The area of impact is relatively small compared to the extent of the distribution of benthic habitats and associated benthic fauna found within the Otway Basin. Widespread changes to the benthic environment or ecosystem functioning or integrity are not predicted. No overlap with threatened ecological communities. Overlap with Zeehan AMP, which has benthic habitat as a value, only occurs one activity.	None identified
	Coastal Habitats and Communities									N/A for planned activities. (No impact to coastal areas from planned drilling operation impacts).					None identified
	Plankton						✓	✓	✓	✓	Temporary, small-scale and recoverable impacts.	N - Limited to individual activity area	N - Recovery days post activity	Moderate for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of routine discharges, drilling discharges plus underwater sound - continuous and impulsive (Sections 6.6, 6.7, 6.8 and 6.9) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Discharges to the water column are not predicted to impact water quality at a cumulative scale and therefore will not impact plankton at an ecological integrity level. Continuous noise from drilling and vessel operation is not predicted to impact plankton. The cumulative impact of impulsive sound from consecutive seismic operations has been assessed and controlled in relevant EPs. Impacts from VSP are short term (<20 hours per well and nor predicted to result in impacts at scale to contribute to cumulative impacts.	None identified
	Invertebrates		✓				✓	✓		✓	Temporary, small-scale and recoverable impacts.	N - Limited to individual activity with exception of multiple seismic operations	N - Limited to weeks-months after individual activity	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance, drilling discharges plus underwater sound - continuous and impulsive (Sections 6.3, 6.6, 6.7 and 6.8) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Continuous noise from drilling and vessel operation and VSP is not predicted to impact invertebrates. The cumulative impact of impulsive sound from consecutive seismic operations has been assessed and controlled in relevant EPs.	None identified

Ecological Environment	Fish and Sharks		✓				✓	✓	✓	✓	Not inconsistent with EPBC Act Management Plans, and Recovery Plans. Temporary, small-scale and recoverable impacts.	N - Limited to individual activity with exception of multiple seismic operations	N - Periods of biologically important behaviours for sensitive species	High for individual and cumulative impact sense.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance, operational and drilling discharges plus underwater sound - continuous and impulsive (Sections 6.3, 6.6, 6.7, 6.8 and 6.9) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Underwater sound from drilling is predicted to be localised to within 190 m for recoverable injury and TTS for fish and sharks and within 450 m for VSP. The area of impact from concurrent seismic and drilling activities is small compared to the extent of the distribution of fish and shark species. The area of impact from concurrent seismic and drilling activities is small compared to the white shark distribution BIA, but is considered moderate for the foraging BIA. However, seismic survey and drilling operations with the potential to affect the foraging BIA in the northern extent of VIC/P79 are mutually exclusive and cannot occur concurrently. Sound impacts are not identified as a threat within the Recovery Plan for the White Shark (Carcharodon carcharias) (DSEWPaC 2013a).	None identified
	Birds			✓	✓		✓	✓			Not inconsistent with EPBC Act Management Plans, and Recovery Plans. Temporary, small-scale and recoverable impacts.	Y - BIAs for sensitive species (Bioregion)	Y - Periods of biologically important behaviours for sensitive species	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of ambient light - operational and flaring, plus underwater sound - continuous and impulsive (Sections 6.4, 6.6 and 6.7) which highlights the limited spatial and temporal nature of the aspects. There is potential for additive cumulative impacts associated with light depending on location of activities and sensitive receptors from COPA's and other reasonably foreseeable activities with similar aspects. There is no cumulative effect pathway for underwater sound with the consequence of underwater sound on birds from drilling activities assessed as negligible. Although changes in ambient light are restricted to typically 20 km radius of individual activities, activities may be occurring consecutively over a number of years throughout the region and seismic and drilling at one location have the potential to occur concurrently.	Identified from COPA's and other reasonably foreseeable activities with further assessment required to determine if impacts are material.
	Marine Reptiles			✓	✓		✓	✓			Not inconsistent with EPBC Act Management Plans, and Recovery Plans. Temporary, small-scale and recoverable impacts.	N - No BIAs or critical habitat	N - No periods of biologically important behaviours for sensitive species	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of ambient light - operational and flaring, plus underwater sound - continuous and impulsive (Sections 6.4, 6.6 and 6.7) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Individuals in the area are expected to be transient, with no BIAs, critical habitat or biologically important behaviours within the Otway Basin. Lighting doesn't impact inwater navigation or behaviours and impacts from noise will be temporary and recoverable.	None Identified
	Marine Mammals						✓	✓	✓	✓	Not inconsistent with EPBC Act Management Plans, and Recovery Plans. Temporary, small-scale and recoverable impacts.	Y - BIAs for sensitive species (Bioregion)	Y - Periods of biologically important behaviours for sensitive species	Moderate for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of routine discharges, drilling discharges plus underwater sound - continuous and impulsive (Sections 6.6, 6.7, 6.8 and 6.9) which highlights the limited spatial and temporal nature of the aspects. There is potential for additive cumulative impacts associated with underwater sound depending on location of activities and sensitive receptors from COPA's and other reasonably foreseeable activities with similar aspects. Although sound impacts are restricted to within typically 10s of kms around individual activities, activities may be occurring consecutively over a period of time and seismic and drilling at one location have the potential to occur concurrently.	Identified underwater sound from COPA's and other reasonably foreseeable activities as a cumulative cause-effect pathway with further assessment required to determine if impacts are material.
	Conservation Values and Sensitivities		✓			✓	✓	✓		✓	Not inconsistent with SE Marine Parks Network Management Plan. Temporary, small-scale and recoverable impacts.	Y - Zeehan AMP	Y - Periods of biologically important behaviours for conservation values	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance, atmospheric emissions, underwater sound - continuous and impulsive and drilling discharges (Sections 6.3, 6.5, 6.6, 6.7 and 6.8) which highlights the limited spatial and temporal nature of the aspects. The Zeehan Marine Park is overlapped by three proposed activities, including the COPA drilling project. See individual ecological receptors above for assessment of conservation values of the Zeehan Marine Park which include benthic habitats that supports animal communities and invertebrates, seabirds, the white shark and migrating blue whales and humpback whales.	Identified from COPA's and other potential activities for seabirds and whales from COPAs and other reasonably foreseeable activities with further assessment required to determine if impacts are material.
	Coastal Communities and Onshore Tourism Activities	✓		✓	✓						Temporary, small-scale and low intensity impacts.	N - Not predicted to see multiple activities from single vantage point (King Island, Victorian coast)	Y - May be able to see different activities over time from single vantage point (King Island, Victorian coast)	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users and artificial light - operational and flaring (Sections 6.2 and 6.4) which highlights the limited spatial and temporal nature of the aspects. There is potential for additive cumulative impacts associated with visual impact depending on location of activities and sensitive receptors from COPA's and other reasonably foreseeable activities with similar aspects but impacts not material. The likelihood of visibility of multiple activities from a single vantage point is considered low given the distances offshore it is not predicted that MODU and vessel would be distinguishable from other existing vessel traffic.	Identified from COPA's and other potential activities but impacts not material. No further assessment required.

Socio-economic Environment (Other marine and coastal users)	Offshore Petroleum Activities	✓								Temporary, small-scale and low intensity impacts.	N	N	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users (Section 6.2) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified but impacts not material. Other activities are scheduled and/or operate within their own exclusions zones/petroleum titles. Notice to mariners will provide advanced warning and opportunity to plan transit route. At most avoidance of a single seismic survey vessel and towed equipment, and a single drilling location at any given time with minimal impact.	Identified from COPA's and other reasonably foreseeable activities but impacts not material. No further assessment required.
	Offshore Renewable Energy Activities	✓								Temporary, small-scale and low intensity impacts.	N	N	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users (Section 6.2) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. There are no reasonably foreseeable future projects or activities in the offshore Otway Basin.	None Identified
	Defence Activities	✓	✓							Temporary, small-scale and low intensity impacts.	Y - Displacement from concurrent and consecutive seismic and drilling areas	Y - Displacement from concurrent and consecutive seismic and drilling areas	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users and seabed disturbance (Section 6.2 and 6.3) which highlights the limited spatial and temporal nature of the aspects. Successive and additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified but impacts not material. Industry standard controls in place such as notice to mariners will provide advanced warning and opportunity to plan transit route. At most avoiding a single seismic survey vessel and towed equipment, and a single drilling location at any given time with minimal impact. Impacts to maritime archaeological heritage are not predicted from seismic surveys. Drilling activities required to undertake seabed surveys prior to seabed disturbance. Impacts to UXO are not a planned event and therefore cumulative impacts are not predicted.	Identified from COPA's and other reasonably foreseeable activities but impacts not material. No further assessment required.
	Shipping	✓								Temporary, small-scale and low intensity impacts.	Y - Displacement from concurrent and consecutive seismic and drilling areas	Y - Displacement from concurrent and consecutive seismic and drilling areas	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users (Section 6.2) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified but impacts not material. The area of impact is small compared to the area available for shipping. Industry standard controls in place such as notice to mariners will provide advanced warning and opportunity to plan transit route. At most avoiding a single seismic survey vessel and towed equipment, and a single drilling location at any given time with minimal impact.	Identified from COPA's and other reasonably foreseeable activities but impacts not material. No further assessment required.
	Marine Tourism	✓								Temporary, small-scale and low intensity impacts.	Y - Displacement from concurrent and consecutive seismic and drilling areas	Y - Displacement from concurrent and consecutive seismic and drilling areas	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users (Section 6.2) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other potential activities identified but impacts not material. The area of displacement is small compared to area available for tourism. Industry standard controls in place such as notice to mariners will provide advanced warning and opportunity to plan transit route. At most avoiding a single seismic survey vessel and towed equipment, and a single drilling location at any given time with minimal impact.	Identified from COPA's and other reasonably foreseeable activities but impacts not material. No further assessment required.
	Recreational Diving and Surfing						✓	✓		N/A for planned activities. No affect to divers and surfers from planned drilling operations are predicted.					None identified
	Recreational Fishing	✓								Temporary, small-scale and low intensity impacts.	Y - Displacement from concurrent and consecutive seismic and drilling areas on-shelf area	Y - Displacement from concurrent and consecutive seismic and drilling areas	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users (Section 6.2) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified but impacts not material. The area of displacement is small compared to area available for recreational fishing. Industry standard controls in place such as notice to mariners will provide advanced warning and opportunity to plan activities. At most avoiding a single seismic survey vessel and towed equipment, and a single drilling location at any given time with minimal impact.	Identified from COPA's and other reasonably foreseeable activities but impacts not material. No further assessment required.

	Commercial Fisheries	✓	✓				✓	✓			Affected persons will not be worse off because of the activity.	Y - Displacement from concurrent and consecutive seismic and drilling areas	Y - Displacement from concurrent and consecutive seismic and drilling areas	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users, seabed disturbance plus underwater sound - continuous and impulsive and drilling discharges (Sections 6.2, 6.3, 6.6 and 6.7) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified but impacts not material. Displacement of fishers operating in fisheries with spatial extent that may be overlapped by a number of offshore activities, i.e. displaced by multiple exclusion zones (MODU and seismic survey) or different exclusion zone over time. Although displacement impacts are restricted to within typically 2 kms around individual activities, drilling may be occurring consecutively over a period of time and seismic and drilling at one location have the potential to occur concurrently. Minor behavioural disturbances are predicted to commercial fish species from underwater sound and cumulative impacts are not predicted.	Identified from COPA's and other reasonably foreseeable activities and further assessment required to determine if impacts are material.
Cultural Environment	First Nations Peoples Heritage including but not limited to Sea Country, Song Lines and totemic species.	✓	✓	✓	✓		✓	✓		✓	Not inconsistent with Indigenous Protected Area Plans. Temporary, small-scale and recoverable impacts.	Y - Sea Country	Y - Over term of activities	Moderate in individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of interference with other marine and coastal users, seabed disturbance, artificial light -operational and flaring, underwater sound - continuous and impulsive plus drilling discharges (Sections 6.2, 6.3, 6.4, 6.5, 6.6 and 6.8) which highlights the limited spatial and temporal nature of the aspects. Additive cumulative impact cause-effect pathway from COPA and other reasonably foreseeable activities identified. Drilling and other activities may have the potential to cumulatively affect cultural values and sensitivities in the region.	Identified from COPA's and other reasonably foreseeable activities and further assessment required to determine if impacts are material.
	Maritime Archaeological Heritage		✓								No disturbance of maritime cultural heritage.	N - Only single drilling operation at any one time	N - Control Measures in place to detect and prevent interactions	High for individual and cumulative impacts.	No cumulative impact cause-effect pathways identified for COPA activities based on a review of seabed disturbance (Section 6.3) which highlights the limited spatial and temporal nature of the aspects. No cumulative impact cause-effect pathways identified for COPA and other reasonably foreseeable activities with similar aspects. Impacts to maritime archaeological heritage are not predicted from seismic surveys. Drilling activities required to undertake seabed surveys prior to seabed disturbance. Impacts to maritime archaeological heritage are not a planned event and therefore cumulative impacts are not predicted.	None Identified

CIA Assessment Tool

Aspect	Species /Receptor	Conservation Values e.g. Threatened Species - EPBC Listed	Conservation Management Plan	Relevant Threatening Process(es)	Relevant spatial extent (e.g. BIAs)	Any biologically important features (e.g. behaviours or critical life-cycle stages, timings)	Relevant Actions from Legislative or other Requirements	Acceptable Level	Baseline - Existing Environment (pressures and condition)	TGS	Regia	COP	Beach	Cooper	Woodside	Potential for Cumulative Impact	Control Measures	Description of Cumulative Impact	Assessment against baseline	Is the Acceptable Level Met	ALARP - Additional controls	ACTIONS
Light	Albatross, Petrels and Shearwaters: Antipodean, southern royal, wandering, northern royal, Sooty, Buller's, shy, grey-headed, Campbell, black-browed, Salvin's, Indian yellow-nosed, and white-capped albatrosses. Southern and northern giant, common diving and white-faced storm-petrels. Short-tailed and wedge-tailed shearwaters.	Endangered, Vulnerable, not listed, some with foraging BIAs, common diving petrel (nocturnal), short-tailed shearwater and wedge-tailed shearwater with breeding BIAs within EMBAs. Short-tailed shearwater also identified cultural value.	National Recovery Plan for Albatrosses and Petrels (DCCEEW 2022e) Wildlife Conservation Plan for Seabirds (DCCEEW 2020) National Light Pollution Guidelines for Wildlife (CoA 2023)	**Reasons for inclusion in assessment:** Light emissions are identified as a threat in the National Recovery Plan but marine infrastructure interactions, including those associated with artificial light, are classified as having no risk category priority and affecting 'Nil' species in Australian jurisdiction. The National Recovery Plan also states that **light associated with coastal developments at or adjacent to breeding sites represents a moderate threat to short-tailed shearwater** (Migratory, Marine), which has been identified as a species of cultural significance. **Light pollution, including from gas flaring, is listed as a threat to seabirds in the Wildlife Conservation Plan, with potential for consequences affecting individuals but not whole populations**. The recommended management action is to implement measures to reduce the impact of light pollution near breeding colonies.	Foraging BIAs for Antipodean, black-browed, Buller's, Campbell, Indian yellow-nosed, shy and wandering albatross, white-faced storm petrel, short-tailed shearwater and common diving-petrel within operational light and flaring EMBAs. Breeding BIAs for short-tailed shearwater and wedge-tailed shearwater within flaring EMBA. Breeding BIA for common diving petrel within operational light and flaring EMBAs.	Foraging: typically all year round Breeding: Short-tailed Shearwater: September-April Wedge-tailed shearwater: October-April Common-diving petrel: Birds present year round, Breeding July - January (NCVA)	National Recovery Plan for Albatrosses and Petrels: no relevant actions. Wildlife Conservation Plan for Seabirds: Mitigate against impacts of light pollution around breeding colonies. National Light Pollution Guidelines for Wildlife recommend: 1. Always using Best Practice Lighting Design to reduce light pollution and minimise the effect on wildlife. 2. Undertaking an Environmental Impact Assessment for effects of artificial light on listed species for which artificial light has been demonstrated to affect behaviour, survivorship or reproduction.	Cumulative light does not impact breeding colonies of short-tailed shearwaters, wedge-tailed shearwaters or the common diving petrel, or populations of other species that forage in the area.	Existing lighting in the area includes fishing vessels, shipping traffic, existing offshore oil and gas platform and coastal developments. The shipping channel for vessels coming from Melbourne to Tasmania is one of the busiest shipping routes in offshore Australia.	Foraging BIAs	Foraging BIAs, Common diving petrel Breeding BIA	Foraging BIAs, Common diving petrel Breeding BIA, Wedge-tail shearwater and short-tail shearwater breeding BIAs.	Foraging BIAs	Foraging BIAs, Wedge-tailed shearwater Breeding BIA	Foraging BIAs, Wedge-tailed shearwater Breeding BIA	Foraging BIAs: Potential for overlap between single seismic survey and single drilling operation, and sequential drilling/P&A activities. Breeding BIAs for short-tailed shearwaters: no overlap predicted from multiple projects, only COPA whilst drilling in T/49P, which from the activity impact assessment is not predicted to result in behavioural impacts or injury/mortality to the species. No cause-effect pathway for cumulative impact identified. Breeding BIA for wedge-tailed shearwater: overlap of light EMBAs from consecutive drilling /P&A activities, not from concurrent activities. Breeding BIA for common diving-petrel: This species is particularly susceptible to coastal light impacts when returning to or leaving the nesting colony which may result in a disruption to adult nest attendance (CoA 2023). Regia and COPA cannot co-occur, with limited potential for impacts from consecutive operations which are scheduled to be years apart in this area. No cause-effect pathway for cumulative impact identified.	As per Otway Exploration Drilling Program EP - CM07: Light Management Plan and CM10: Well Testing Program	Potential for cumulative impacts associated with: Foraging BIAs: limited spatial extent of effect compared to area available for foraging. Most species forage during daylight. The National Recovery Plan states that marine infrastructure interactions, including those associated with artificial light, are classified as having no risk category priority and affecting 'Nil' species in Australian jurisdiction. Breeding BIA for wedge-tailed shearwater - only overlapped by flaring EMBA from COP which is limited to 120 hours per well. This species is not listed as threatened and periodic changes in ambient light within the EMBAs is unlikely to cause behavioural changes or result in injury/mortality to this species.	As per Otway Exploration Drilling Program EP.	Yes, as per Otway Exploration Drilling Program EP.	Titleholders overlapping bird foraging or breeding BIAs are required to have a light management plan that meets the requirements of the National Light Pollution Guidelines. Commitment to share information amongst Otway Basin Petroleum Titleholders on attractions and groundings of birds and opportunities for improvement to be able to ensure management of change can respond to operational experience.	CM07: Light Management Plan 7.7 ConocoPhillips Australia will work with other titleholders with the aim of minimising the potential for cumulative impacts associated with light emissions, should activity timings overlap biologically important periods for light sensitive species. 7.8 Report observation, incidents and opportunities for improvement regarding light management and bird interactions to other Otway Titleholders.
Light	Migratory Shorebirds - greater sand plover, lesser sand plover, red knot. Species that have artificial lighting as a threat.	Endangered to Vulnerable	Wildlife Conservation Plan for Migratory Shorebirds (DoE 2015d). Conservation Advice Calidris canutus Red knot. Conservation Advice Charadrius mongolus Lesser sand plover. Conservation Advice Charadrius leschenaultii Greater sand plover.	**Reason for inclusion in assessment:** Conservation advices identify that disturbance can result from recreational activities including night lighting. Migratory shorebirds are most susceptible to disturbance during daytime roosting and foraging periods (DoE 2015).	Overlap of light EMBAs with coastal habitat.	Roosting and Foraging	The Wildlife Conservation Plan for Migratory Shorebirds identifies artificial lighting as a threat with the following actions relevant to light: Ensure all areas important to migratory shorebirds in Australia continue to be considered in development assessment processes. National Light Pollution Guidelines for Wildlife recommend: 1. Always using Best Practice Lighting Design to reduce light pollution and minimise the effect on wildlife. 2. Undertaking an Environmental Impact Assessment for effects of artificial light on listed species for which artificial light has been demonstrated to affect behaviour, survivorship or reproduction.	Cumulative light does not impact roosting or foraging of migratory shorebirds.	Existing lighting in the area includes fishing vessels, shipping traffic, existing offshore oil and gas platform and coastal developments. The shipping channel for vessels coming from Melbourne to Tasmania is one of the busiest shipping routes in offshore Australia.	N	Y - Coastal habitat within 20 km	Y - Coastal habitat within 20 km for routine light and 50 km for short-duration flaring.	Y - Coastal habitat within 20 km	Y - Coastal habitat within 20 km	Y - Coastal habitat within 20 km	Limited potential to impact daytime foraging of roosting behaviours - do not represent the same threat as that identified within relevant plans and conservation advice. No cause-effect pathway for cumulative impact identified	As per Otway Exploration Drilling Program EP - CM07: Light Management Plan and CM10: Well Testing Program	Limited potential for cumulative impact - activities do not generate artificial lighting associated with coastal development, tourism and recreational activities and do not result in disturbance during daytime roosting and foraging periods.	As per Otway Exploration Drilling Program EP.	Yes, as per Otway Exploration Drilling Program EP.	Titleholders overlapping shorebird coastal habitats are required to have a light management plan that meets the requirements of the National Light Pollution Guidelines.	Nil additional
Light	Orange Bellied Parrot	Critically Endangered	National Recovery Plan for the Orange bellied Parrot Neophema chrysogaste (DELWP 2016).	**Reason for inclusion in assessment:** Light - Illuminated boats and structures within the migration route as a barrier to migration.	Probable Migration Route, Migration Route	Migration Sept-Nov (Southward); Feb-mid-March (northwards)	Assess the risk of barriers, being illuminated structures or boats, on the migration route. Manage threat if the risk rating warrants action. National Light Pollution Guidelines for Wildlife recommend: 1. Always using Best Practice Lighting Design to reduce light pollution and minimise the effect on wildlife. 2. Undertaking an Environmental Impact Assessment for effects of artificial light on listed species for which artificial light has been demonstrated to affect behaviour, survivorship or reproduction.	Light from cumulative sources does not affect migration of the orange-bellied parrot at a population level.	OBP migratory route is within the shipping channel for vessels coming from Melbourne to Tasmania - this one of the busiest shipping routes in offshore Australia.	N	Y - Increased ambient light as a result of operational light N - Activity does not represent illuminated structure or vessels within migration routes	Y - Increased ambient light as a result of operational and flaring light N - Activity does not represent illuminated structure or vessels within migration routes	Y - Increased ambient light as a result of operational light N - Activity does not represent illuminated structure or vessels within migration routes	Y - Increased ambient light as a result of operational light N - Activity does not represent illuminated structure or vessels within migration routes	Y - Increased ambient light as a result of operational light N - Activity does not represent illuminated structure or vessels within migration routes	Only overlap predicted with light EMBAs, not illuminated structures or vessels. **Spatial:** Potential overlap between Regia seismic and 1 drilling activity with light EMBA overlapping the route - for one season (while seismic is occurring). **Temporal**: Consecutive drilling operations over an extended period of time may have light EMBAs that overlap the migration routes.	As per Otway Exploration Drilling Program EP - CM07: Light Management Plan and CM10: Well Testing Program	For seismic, cumulative impacts from light emissions on the probable migration route would be of short duration only when acquiring in the eastern side of the area at night, concurrently with a single drilling operation. Seismic program is limited to a maximum of 90 days, with 60 days of acquisition. **Temporal:** Light EMBA from a single drilling rig overlapping varying spatial extents of the probable migration route over a period of years. No evidence of OBP presence recorded during 18 month drilling campaign in region. OBP numbers continue to increase.	The cumulative impact of light emissions from Otway petroleum activities would be very low in comparison to the light emissions associated with existing shipping and fishing operations within the migration route. In addition, the majority of these vessels are not required to operate in accordance with a Light Management Plan.	The impact of light emissions from a seismic vessel overlapping the light emission from a drilling rig are predicted to result in increases in ambient light that are short-term, fully recoverable and do not represent illuminated structures or boats within the migration route. **Temporal:** Light from drilling activities will only occur from a single location, with limited overlap with the probable migration route and do not represent illuminated structures or boats within the migration route.	Most titleholders have committed to having a light management plan that meets the requirements of the National Light pollution guidelines. Commitment to share information amongst Otway petroleum operators on attractions and groundings of birds and opportunities for improvement to be able to ensure management of change can respond to operational experience.	CM07: Light Management Plan 7.7 ConocoPhillips Australia will work with other titleholders with the aim of minimising the potential for cumulative impacts associated with light emissions, should activity timings overlap biologically important periods for light sensitive species. 7.8 Report observation, incidents and opportunities for improvement regarding light management and bird interactions to other Otway Titleholders.
Light	Little penguin	Not listed, but conservation value in the south-east and temperate east.	Wildlife Conservation Plan for Seabirds (DCCEEW 2020)	Key threats to little penguins are mortality and injury arising from interactions with commercial fishing activities, oil pollution and mortality through collisions with watercraft. Additionally, the impact of changing oceanic conditions appears to impact food availability and reproductive success (DCCEEW 2020). **Reason for inclusion in assessment:** Studies suggest that penguins were unaffected by a 15 lux increase in artificial illumination (Rodriguez et al. 2016). **However, when exposed to artificial light, fledglings can be disoriented and grounded and are vulnerable to collision with infrastructure when disoriented (Rodriguez et al. 2017).**	A foraging BIA (representing a 10 km foraging around known aggregation site) overlapping the EMBA was identified around Christmas Island breeding BIA (NCVA 2021). Little penguins are also known to breed on Middle Island and Lady Julia Percy Island which are within the area potentially affected by light emissions.	Breeding: Variable but sometime between September and February	This species is listed as marine and does not have a recovery plan or conservation advice. The Wildlife Conservation Plan for Seabirds (CoA 2020a) does not identify light as a threat to this species.	Cumulative light does not impact breeding of little penguins.	Existing lighting in the area includes fishing vessels, shipping traffic, existing offshore oil and gas platform and coastal developments. The shipping channel for vessels coming from Melbourne to Tasmania is one of the busiest shipping routes in offshore Australia.	N	N - not affecting identified breeding BIA at Christmas Island, but light EMBA overlaps Middle Island and Lady Julia Percy Island	Y - flaring EMBA overlaps Christmas Island, Middle Island and Lady Julia Percy Island	N - not affecting identified breeding BIA at Christmas Island	N - not affecting identified breeding BIA at Christmas Island	N - not affecting identified breeding BIA at Christmas Island	Breeding BIA for little penguin: No cumulative overlap predicted, only affected by flaring EMBA from COP. No cause-effect pathway for cumulative impact identified. Other breeding areas (Lady Julia Percy and Middle Islands): Regia and COPA cannot co-occur, with limited potential for impacts from consecutive operations which are scheduled to be years apart in this area. No cause-effect pathway for cumulative impact identified	As per Otway Exploration Drilling Program EP - CM07: Light Management Plan and CM10: Well Testing Program	The breeding BIA for the species only overlaps with the COP flaring EMBA. The increase in light level intersecting the coastline at Christmas Island has been estimated as being approximately <0.003 lux, and <0.005 to <0.007 lux at Warrnambool and Port Fairy near Middle Island and Lady Julia Percy Island (Appendix F). In addition, a change in ambient light levels from flaring operations will only be intermittent and temporary (120 hours per well), and not expected to cause impact at a population level. Therefore, a change in ambient light within the EMBAs is unlikely to cause behavioural changes or result in injury/mortality to the little penguin and no cumulative impact is predicted.	As per Otway Exploration Drilling Program EP.	Yes, as per Otway Exploration Drilling Program EP.	Titleholders overlapping little penguin breeding BIAs or known breeding areas are required to have a light management plan that meets the requirements of the National Light Pollution Guidelines.	Nil additional
Underwater Sound	Southern right whale (SRW)	Endangered. The draft National Recovery Plan for the Southern Right Whale (CoA 2022) identifies the SRW as a species of cultural significance.	Conservation Management Plan for Southern Right Whale (DSEWPaC 2012b) draft National Recovery Plan for the Southern Right Whale (CoA 2022)	**Reason for inclusion in assessment:** Conservation Management Plan for the Southern Right Whale and draft National Recovery Plan for the Southern Right Whale identify noise interference as a threat.	Overlap of underwater sound EMBAs with Migration and Breeding BIAs.	Migration: April - October Breeding: May - September	Draft National Recovery Plan for the Southern Right Whale: Actions within and adjacent to SRW BIAs and habitat critical to the survival of SRWs should demonstrate that is does not prevent any SRW from utilising the area or cause injury (PTS, TTS) and/or disturbance. NOTE: Legal definition of 'Should' means expected course of action or policy to be followed unless inappropriate for a particular circumstances. NOTE: No habitat critical to the survival of SRWs have been identified.	The activity will be carried out in a manner that will not be inconsistent with the draft National Recovery Plan for the Southern Right Whale (DCCEEW 2022a) such that actions within and adjacent to SRW BIAs should demonstrate that it does not prevent any SRW from utilising the area or cause injury (TTS and PTS) and/or disturbance.	BIAs overlap fisheries and shipping channel.	N - Breeding BIA Y- Migration BIA	N - Breeding BIA Y- Migration BIA	N - Breeding BIA Y - Migration BIA	N - Breeding BIA Y- Migration BIA	Unsure	Unsure	Cumulative impacts from COP activities to the SRW Breeding BIA are not predicted as the COP sound EMBAs do not overlap with this area. With the current uncertainty on the timing of some other projects and the distance of underwater sound EMBAs, there is the potential for cumulative impact if the following occur within the migration BIA during the biologically relevant periods (nominally April - October): - Overlap between one seismic survey and one drilling activity for one season. - Consecutive drilling/P&A activities over a number of seasons.	As per Otway Exploration Drilling Program EP - CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM08: Whale Management Plan CM09: Drilling Program CM11: Procurement Vetting Process	Without appropriate detection and actions in place there is the potential that SRWs could be exposed to underwater sound from two sources (seismic and drilling) within the migration BIA that could result in them expending more energy to move away from the sound source when migrating to and from coastal breeding areas. This could also occur for consecutive years whilst drilling/P&A activities are undertaken within the Otway Basin. Cumulative impacts resulting in an increase in the likelihood of PTS and TTS for a migrating SRW is not predicted due to the small distances to the PTS and TTS noise criteria for drilling activities.	As per Otway Exploration Drilling Program EP.	Titleholders are required to undertake their activity in a manner that is not inconsistent with the in force Conservation Management Plan for Southern Right Whale.	Titleholders undertaking petroleum activities in the Otway Basin are required to undertake their activity in a manner that is not inconsistent with the in force Conservation Management Plan for Southern Right Whale. Commitment to share information amongst Otway Basin Petroleum Titleholders on whales, detection methodologies and opportunities for improvement to be able to ensure management of change can respond to operational experience.	CM08: Whale Management Plan 8.3 ConocoPhillips Australia will work with other the Otway Basin Petroleum Titleholders with the aim of minimising the potential for cumulative impacts associated with underwater sound, should activity timings overlap biologically important periods for SRW. 8.4 Observation, incidents, and opportunities for improvement will be reported to other petroleum titleholders in the Otway Basin regarding underwater sound management and whale interactions.
Underwater Sound	Blue whale (BW)	Endangered	Conservation Management Plan for the Blue Whale (DoE 2015) Guidance on key terms within the Blue Whale Conservation Management Plan (DAWE 2021a)	**Reason for inclusion in assessment:** Conservation Management Plan for the Blue Whale identifies anthropogenic noise interference as a threat.	Overlap of underwater sound EMBAs with Foraging BIAs.	November to May	Conservation Management Plan for the Blue Whale states that anthropogenic noise in BIAs must be managed so that blue whales can continue to utilise the area without injury and [are] not displaced from a foraging area. DAWE (2021a) details that underwater anthropogenic noise should not: • Stop or prevent any blue whale from foraging • Cause any blue whale to move on when foraging, or • Stop or prevent any blue whale from entering a foraging area	The activity will be carried out in a manner that will not be inconsistent with the Conservation Management Plan for the Blue Whale such that blue whales can continue to utilise the area without injury and [are] not displaced from a foraging area.	BIAs overlap fisheries and shipping channel.	Y- Foraging BIA	Y- Foraging BIA	Y- Foraging BIA	Y- Foraging BIA	Y- Foraging BIA	Y- Foraging BIA	With the current uncertainty on the timing of some other projects and the distance of underwater sound EMBAs, there is the potential for cumulative impact if the following occur within the migration BIA during the biologically relevant periods (nominally November to May): Overlap between one seismic survey and one drilling activity for one season. Consecutive drilling/P&A activities over a number of seasons. Consecutive seismic surveys in one season or over a number of seasons.	As per Otway Exploration Drilling Program EP - CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM08: Whale Management Plan CM09: Drilling Program CM11: Procurement Vetting Process	Without appropriate detection and actions in place there is the potential that blue whales could be exposed to underwater sound from two sources (seismic and drilling) within the foraging BIA that could result in them expending more energy to move away from the sound source to forage or restrict the area of foraging. This could also occur for consecutive years whilst drilling/P&A activities are undertaken within the Otway Basin. Cumulative impacts resulting in an increase in the likelihood of PTS and TTS for foraging blue whales is not predicted due to the small distances to the PTS and TTS noise criteria for drilling activities.	As per Otway Exploration Drilling Program EP.	Titleholders are required to undertake their activity in a manner that is not inconsistent with the in force Conservation Management Plan for the Blue Whale.	Titleholders undertaking petroleum activities in the Otway Basin are required to undertake their activity in a manner that is not inconsistent with the in force Conservation Management Plan for the Blue Whale. Commitment to share information amongst Otway Basin Petroleum Titleholders on whales, detection methodologies and opportunities for improvement to be able to ensure management of change can respond to operational experience.	CM08: Whale Management Plan 8.3 ConocoPhillips Australia will work with other the Otway Basin Petroleum Titleholders with the aim of minimising the potential for cumulative impacts associated with underwater sound, should activity timings overlap biologically important periods for blue whales. 8.4 Observation, incidents, and opportunities for improvement will be reported to other petroleum titleholders in the Otway Basin regarding underwater sound management and whale interactions.
Interference via Displacement	The COP operational areas overlap ≥ moderate fishing intensity data for: •SESSF – Shark Gillnet Sector (SESSF-CGS) – Sustainable stock with exception of School shark (Conservation Dependent – fishing pressure). •Southern Squid Jig Fishery and Commonwealth Trawl Sector squid catch (SSJF) – Sustainable stock •Victorian SRL Fishery – Sustainable stock •Victorian GC Fishery – Sustainable stock	Socio-economic value to local communities and national economy	Southern and Eastern Scalefish and Shark Fishery (SESSF) Species Summaries (AFMA 2023)	Nil, other than fishing pressure for school shark (Conservation Dependent – fishing pressure).	Fishery Management Areas for: •Southern and Eastern Scalefish and Shark Fishery – Gillnet Hook Trap Sector Shark Gillnet sub-sector (SESSF – CGS) • Southern Squid Jig Fishery (SSJF) •Rock Lobster Fishery (SRL-Vic) •Giant Crab Fishery (GC-Vic)	•SESSF - CGS: 12 months, starts 1 May. •SSJF: 12 months, actual fishing January-June (highest catch generally March, April). •SRL-Vic: Closed for males 15Sept-15Nov and females 1Jun-15Nov •GC-Vic: Closed for males 15Sept-15Nov and females 1Jun-15Nov	There are no relevant recovery plans and actions.	Commercial fishers are not economically disadvantaged as a result of oil and gas activities in the offshore Otway Basin.	Fisheries overlap with existing shipping channel and area with existing oil and gas activity. Fisheries with ≥ moderate activity in the area historically have sustainable stock status; however School sharks are listed as Conservation Dependent (fishing pressure) in the SESSF – Shark Gillnet Sector.	GC-Vic SRL-Vic	SESSF – CGS SSJF GC-Vic SRL-Vic	SESSF – CGS SSJF GC-Vic SRL-Vic	SESSF – CGS GC-Vic SRL-Vic	SESSF – CGS SRL-Vic	SESSF – CGS SRL-Vic	Two successive seismic surveys, one seismic survey occurring concurrently with drilling/P&A activities and/or consecutive drilling/P&A activities with operational exclusions zones overlapping fishery management areas, in addition to existing pressures.	As per Otway Exploration Drilling Program EP - CM03: Marine and Coastal Users Consultation and Communication Plan and CM04: Commercial Marine Users Adjustment Protocol	Commercial fishers with moderate to high use for the term of the EP may potentially be displaced within relevant Fishery Management Areas in the offshore Otway Basin by the proposed Otway Exploration Program and by other reasonably foreseeable future activities, requiring multiple applications for compensation to be lodged to a range of titleholders.	The cumulative impact of displacement from Otway petroleum activities would be low to moderate in comparison to the displacement associated with existing shipping operations within the fishery management areas. In addition, shipping vessels are not required to provide compensation.	Yes, as per Otway Exploration Drilling Program EP.	Titleholders overlapping fishery management areas with recorded fishing intensity typically have a compensation protocol in place to ensure fishers are no worse off as a result of their proposed activity.	CM04: Commercial Marine Users Adjustment Protocol 4.2 ConocoPhillips Australia will work with other titleholders, fishing associations and fishers, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.

Environmental Performance

Control Measure	EPS ID	Environmental Performance Standard	Measurement Criteria
CM01: Marine Assurance Process	1.1	The MODU and vessels will meet the safety measures and emergency procedures of Marine Order 21 - Safety and Emergency Arrangements	Vetting Records Assurance Review (Acceptance)
	1.2	The MODU and vessels will meet the navigation equipment, Automatic Identification System (AIS), watchkeeping, radar and lighting requirements of Marine Order 30 Prevention of Collisions.	Vetting Records Assurance Review (Acceptance)
	1.3	The MODU and vessels will meet survey, maintenance, and certification as per Marine Order 31 - SOLAS and non-SOLAS Certification.	Vetting Records Assurance Review (Acceptance)
	1.4	Seafarers on the MODU and vessels will meet training and competency requirements as per Marine Order 70 - Seafarer Certification.	Vetting Records Assurance Review (Acceptance)
	1.5	A documented Preventative Maintenance System (PMS will be in place for equipment on the MODU, vessels and ROV that provides a status on the maintenance of equipment and detailed manufacturer's specification on maintenance procedures. • Critical equipment on vessels and the MODU will be inspected to ensure effective operation. • Power generation and propulsion systems on the MODU and vessels will be inspected to ensure efficient operation.	Inspection Reports Vetting Records Assurance Review (Acceptance) PMS Reports
	1.6	Vessels and the MODU will comply with Marine Orders – Part 97: Marine Pollution Prevention – Air Pollution (appropriate to vessel class) for emissions from combustion of fuel, including: • Hold a valid Air Pollution Prevention (APP) certification or equivalent in accordance with MARPOL Annex VI. (Vessels with diesel engines>130 kW must be certified to emission standards (e.g. International Air Pollution Prevention [IAPP]). • National (AMSA) and International (IMO / MARPOL) Emissions and Discharge Standards for vessels • Have a Ship Energy Efficiency Management Plan (SEEMP) as per MARPOL 73/78 Annex VI. • Engine NOx emission levels will comply with Regulation 13 of MARPOL 73/78 Annex VI. • Only MARPOL VI-approved waste incinerators shall be used to incinerate solid combustible waste (food waste, paper, cardboard, rags, plastics). • Ozone Depleting Substances (ODS) handling procedures as per MARPOL Annex VI, including maintenance of ODS record book where rechargeable systems containing ODS are recharged or repaired.	Rig Inspection Report Vetting Records Assurance Review (Rig Acceptance)
	1.7	Oil contaminated water shall be treated via a MARPOL (or equivalent) approved oily water separator and only discharge if oil content less than 15 ppm for vessels >400 tonne. Current certificate for system for vessels >400 tonne.	Oil Record Book Vetting Records
	1.8	Sewage discharged at sea shall be treated via a MARPOL (or equivalent) approved sewage treatment system.	MARPOL certification Vetting Records
	1.9	Food waste macerator specifications will be to ≤25 mm and discharges will occur at distances greater than 3 nm from land.	Garbage record book Vetting Records
	1.1	Vessel and MODU contractor prequalification assessments will be conducted in accordance with Marine Risk Management Standard (GMSTD- MA-003).	Vetting Records Assurance Review (Acceptance)
	1.11	Vessels and the MODU will have current anti-fouling certificates in accordance with Marine Order 98: Marine pollution – anti-fouling systems.	Sighting of relevant certificates Vetting Records Assurance Review (Acceptance)
	1.12	Prior to mobilisation to the first drilling location for the program, the MODU and Vessels will comply with the Australian Ballast Water Requirements (Rev 8), specifically, ensuring they have: • A valid Ballast Water Management Plan • A Ballast Water Management Certificate, and • A Ballast Water Record System with a minimum of 2 years records retained on board.	Completed pre-arrival report Ballast Water Management Plan Ballast Water Management Certificate Vetting Records Assurance Review (Acceptance)
	1.13	Where vessels and the MODU have mobilised from outside of Australian waters, ballast water will be exchanged outside 12 nm from the nearest land and in water depths greater than 50 m.	Ballast water records Vetting Records Assurance Review (Acceptance)
	1.14	Prior to mobilisation to the first drilling location for the program, the MODU will have a Biofouling Management Plan and Record Book consistent with IMO Biofouling Guidelines.	Biofouling Management Plan Biofouling Record Book Vetting Records Assurance Review (Rig Acceptance)
	1.15	Prior to mobilisation to the Otway Region, an IMS Risk Assessment will be conducted on the MODU and vessels by a qualified IMS inspector.	IMS Risk Assessment Report Vetting Records Assurance Review (Acceptance)
	1.16	Based on the outcomes of each IMS Risk Assessment, management measures commensurate with the risk will be implemented to minimise the likelihood of new IMS being introduced, or established IMS being spread within Australian waters.	IMS Risk Assessment Report Vetting Records Assurance Review (Acceptance)
	1.17	Prior to mobilisation to the Otway Region, the MODU will have received advice on biosecurity, pratique and berthing conditions from the Department of Agriculture, Fisheries and Forestry (DAFF)	Correspondence Vetting Records Assurance Review (Acceptance)
CM02: Vessel and MODU Operating Procedures	2.1	The MODU and vessels will abide by activity exclusion zones in place for other activities in the offshore Otway Basin, to minimise the potential for cumulative impacts.	Operational Log
	2.2	The MODU will conduct drilling activities at one location at a time, to minimise the potential for cumulative impacts.	Operational Log
	2.3	An Environment Plan induction will be delivered to all MODU and vessel personnel.	Induction Induction attendance Records

2.4	An explosives safety awareness briefing will be included in the Environment Plan induction delivered to all MODU and vessel personnel.	Induction Induction attendance Records
2.5	AIS will be monitored 24 hours per day - enabling the MODU to receive the data broadcasted by surrounding vessels, such as Maritime Mobile Service Identity (MMSI) number, IMO number, VHF call sign, speed, heading and course over ground. Where an AIS unit is not currently present on a vessel one will be installed, and navigation status will be set correctly.	HSE Inspections Vessel Logs Handover Logs
2.6	At least one support vessel will remain with the MODU during drilling activities, weather permitting.	Induction Vessel Log
2.7	Vessel speeds will be restricted to 5 knots within the drilling area and 10 knots within the operational areas.	Induction Vessel Logs No recordable incidents
2.8	A 500 m Petroleum Safety Zone (PSZ) will be gazetted and monitored around the MODU during the drilling activity.	PSZ gazettal
2.9	Access into the 500 m PSZ, including approach directions and speed, shall be managed via the MODU.	Vessel Logs
2.1	A 2 km cautionary zone will be established and monitored around the MODU during the drilling activity.	Consultation and Communication Plan Consultation Records
2.11	A 500 m Safe Navigation Area (SNA) will be established and monitored around survey vessel(s) and any towed equipment during the seabed survey.	Consultation and Communication Plan Consultation Records
2.12	An avoidance area will be established around the identified research program in VIC/P79 for the duration of the activity and will be communicated to vessel and MODU operators prior to commencement of the activity (Org ID: 508, Blue Whale Study, Org ID: 528, Australian Oceanographic Services Pty Ltd, Event ID: 3194, FB ID: 239).	Vessel Logs Vessel Tracks Consultation Records Induction No recordable incidents
2.13	Fishing will not be permitted from vessels or the MODU.	Induction Vessel Logs No recordable incidents
2.14	Vessels will not exchange ballast water within 12 NM from the nearest land and in water depths of less than 50 m unless sourced from Australian waters.	Ballast water records
2.15	Vessels and aircraft will adhere to the distances and vessel management practices of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and Wildlife (Marine Mammals) Regulations 2009 and will implement an increased caution zone of 500 m between whales and vessels (as described in the Fauna Management Plan – CM05), to ensure cetaceans are not harmed during offshore interactions with vessels and helicopters.	Conformance checked on receipt of marine fauna sighting datasheets. Fauna Management Plan Induction Package Training records
2.16	Vessels will maintain 150 m distance from dolphins, marine turtles, seals and flocks of rafting seabirds, as described in the Fauna Management Plan (Appendix N) – CM08. [Updated in response to Matter: M18].	Fauna Management Plan Induction Package Training records
2.17	Critical equipment on vessels including power generation and propulsion systems and the MODU and vessels will be operated in accordance with manufacturer's instructions and maintained in accordance with the PMS, to ensure effective operation.	Inspection Reports PMS Reports No recordable incidents
2.18	Systems that generate or treat planned discharges will be operated in accordance with manufacturer's instructions and maintained in accordance with manufacturer's specification as detailed in the PMS, to ensure efficient operation.	Inspection Reports PMS Reports No recordable incidents
2.19	Waste with potential to be windblown will be stored in covered containers in accordance with Marine Order 95 (Marine pollution prevention – garbage) 2013.	Waste Management plan Garbage record book HSE Inspections Incident Reports
2.2	Cargo will be packed, loaded, stowed and secured throughout each voyage in accordance with Marine Order 42 (Carriage, stowage and securing of cargoes and containers) 2016, where relevant.	Inspections Incident Reports
2.21	All lifting gear used for deployment and retrieval of equipment over the MODU and vessels will be load rated for the working load.	Rating Records Load records
2.22	Incidents of lost materials or waste overboard with potential to affect safe navigation will be reported to the AMSA JRCC and other marine users of the relevant operational area.	Incident Reports
2.23	Spill Containment Equipment: The contractor(s) management system will include provision to maintain spill containment and clean-up equipment aboard the MODU and vessels to prevent releases to the marine environment.	Vetting Records Assurance Review (Acceptance) HSE Inspections HSE Inspections Daily Reports
2.23	Bunkering/Bulk Liquid Transfer Procedure: Bunkering and bulk liquids will be transferred in accordance with Bunkering/Bulk Liquids Procedure(s) to reduce the risk of an unintentional release to sea during transfer. The procedures include standards for: • Certified equipment with checked integrity (e.g. hose and valves). • Transfer process (e.g. safety, communication, monitoring, inventory, emergency shut down procedures, procedural documents, and spill incident details)	Vetting Records Assurance Review (Acceptance) Bunkering Records
	All vessels will have a SOPEP/SMPEP (or equivalent appropriate to class) which details: • Response equipment available to control a spill event • Review cycle to ensure that the Plans are kept up to date	Vetting Records Assurance Review (Acceptance)

	2.24	• Testing requirements, including the frequency and nature of these tests • Reporting requirements and a list of authorities to be contacted • Activities to be undertaken to control the discharge of hydrocarbon (specifically, procedures to stop or reduce the flow of hydrocarbons to be considered in the event of tank rupture), and • Procedures for coordinating with local officials.	
	2.25	The sulphur content of fuel used by the MODU and vessels will comply with Regulation 14 of MARPOL Annex VI (as appropriate to vessel class) in order to control SOx and particulate matter emissions, namely vessels will use very low sulphur fuel oil (VLSFO) (e.g. maximum 0.50% S VLSFO-DM, maximum 0.50% S VLSFO-RM).	Fuel Supply Contract Bunkering Receipts
	2.26	Bulk Solid Transfer Procedure: Bulk solids will be transferred in accordance with Bulk Transfer Procedures to reduce the risk of an unintentional release to sea during tank venting. The procedures include standards for: • Certified equipment with checked integrity (e.g. hose and valves). • Transfer process (e.g. safety, communication, monitoring, inventory, emergency shut down procedures, procedural documents, and spill incident details).	MODU/Vessel inspection
	2.27	Fuel use will be recorded, and combustion emissions will be reported by the relevant facility operator in alignment with the National Greenhouse and Energy Reporting Act 2007 and/or associated international standards.	Bunkering Receipts Daily Report - Fuel Consumption Ship Energy Efficiency Management Plan NGERs Reports (or equivalent)
CM03: Marine and Coastal Users Consultation and Communication Plan	3.1	A Marine and Coastal Users Consultation and Communication Plan will be developed and implemented.	Consultation and Communication Plan Consultation Records
	3.2	Outcomes of the NOPSEMA assessment will be communicated to relevant persons.	Consultation and Communication Plan Consultation Records
	3.3	During the activity relevant persons will be informed about the progress of the activity and any changes at the frequency requested during the preparation of the EP, including a close-out letter at the conclusion of the activities.	Consultation and Communication Plan Consultation Records
	3.4	Specific notifications will be provided as follows, prior to arrival in the operational areas and on departure, so the maritime industry is aware of petroleum activities: • AMSA's Joint Rescue Coordination Centre (JRCC) (minimum two days prior) - to distribute AusCoast Warning (Org ID: 8, Australian Maritime Safety Authority (AMSA), Event ID: 484, FB ID: 8, 9) • Australian Hydrographic Office (AHO) (minimum four weeks prior) - to publish Notice to Mariners Org ID: 28, Department of Defence, Event ID: 540, FB ID: 159; Org ID: 8, Australian Maritime Safety Authority (AMSA), Event ID: 484, FB ID: 10) • Marine and Safety Tasmania (minimum 4 weeks prior and general updates) (Org ID: 10, Maritime and Safety Tasmania, Event ID: 509, FB ID: 6, 63) • Other relevant Authorities (minimum one week prior) • Ocean Racing Club Victoria for activities scheduled for late-December to early-January (Org ID: 510, Ocean Racing Club of Victoria (ORCV), Event ID: 2617, FB ID: 62) • 48-hour look-ahead provided every 24-hours prior to and during key periods of activity (i.e. transit of rig) (Org ID: 6, Tuna Australia, Event ID: 4255, FB ID: 464; Org ID: 6, Tuna Australia, Event ID: 4526, FB ID: 473)	Consultation and Communication Plan Consultation Records
	3.5	A Safe Operations Guide will be developed and implemented that details pre-activity and on-water communication processes, including SMS messages and radio communication on Channel 16. The guide will be developed based on feedback from consultation with other marine and coastal users during the preparation of the EP and adjustment protocol (see Event/Reg16b IDs below).	Safe Operations Guide Consultation Records
	3.6	Fee-for-service arrangement in place with SETFIA to send SMSs to the western distribution list with details of where and when seabed survey, anchor pre-lay and drilling activities are scheduled to occur and regular updates on progress and forecast plans, and what controls (cautionary and exclusion zones) will be in place at set intervals: • 30 days prior to scheduled mobilisation for each activity • 2 weeks prior to mobilisation for each activity • 1 week prior to scheduled mobilisation for each activity • At commencement of each activity • Periodically during each activity	Consultation and Communication Plan Consultation Records
CM04: Commercial Marine Operators Adjustment Protocol	4.1	An Adjustment Protocol will be developed: • In consultation with fishing associations and individual fishers to ensure that commercial fishers' claims can be assessed and compensated. • Based on feedback from consultation with other commercial marine operators who identified they could be potentially impacted by the petroleum activity. (Org ID: 137, Org ID: 138, Event ID: 3984, FB ID: 429; Org ID: 569, Tasmanian Climate Collective, Event ID: 3469, FB ID: 345; Org ID: 462, Mahina Bay Fishing Co Pty Ltd, Event ID: 3432, FB ID: 344; Org ID: 593, Event ID: 2512, FB ID: 168; Org ID: 50, Tasmanian Seafood Industry Council (TSIC), Event ID: 1821, FB ID: 152; Org ID: 433, Event ID: 2663, FB ID: 135; Org ID: 5, Colac Otway Shire Council, Event ID: 582, FB ID: 14; Org ID: 471, [redacted] Fishing Co Pty Ltd, Event ID: 536, FB ID: 12; Org ID: 490, Event ID: 507, FB ID: 3; Document ID: 3923).	Adjustment Protocol Consultation Records
	4.2	ConocoPhillips Australia will work with other titleholders, fishing associations and fishers, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers. (Org ID: 50, Tasmanian Seafood Industry Council (TSIC), Event ID: 1821, FB ID: 149, 150; Org ID: 433, Event ID: 2663, FB ID: 134; Org ID: 36, Victorian Fishing Authority (VFA), Event ID: 2522, FB ID: 87; Document ID: 3923).	Adjustment Protocol Consultation Records
CM05: Cultural Heritage Protection Program (CHPP) A Cultural Heritage Protection Program will be established in consultation with First Nations cultural heritage advisors and indigenous communities with Sea Country within or adjacent to the operational areas, to protect cultural values and sensitivities	5.1	Magnetometer (or gradiometer) survey data and seabed imagery will be reviewed during the seabed survey prior to collection of sediment samples, to support avoidance of ferric metal objects, including unidentified shipwrecks, aircraft and unexploded ordnance (UXO).	Site Survey Records No recordable incidents
	5.2	Seabed survey data and seabed imagery will be analysed by a suitably qualified underwater archaeologist to identify cultural heritage values and sensitivities and inform protection priories, measures and reporting requirements.	Site Survey Records Underwater Archaeology Report Incident Reports
	5.3	Cultural Heritage Identification and Documentation: The CHPP will fund a process whereby First Nations Persons can identify, record, and document cultural heritage values and sensitivities, such as sites, stories and songlines, within the Otway Exploration Drilling Program area to enhance Indigenous Protected Area (IPA) Sea Country Plans.	Consultation Records Documented Cultural Heritage Protection Program including: - Protection priorities - Measures - Mitigation strategies - Response strategies
	5.4	Indigenous Community Consultation: The CHPP will be established in consultation with First Nations cultural heritage advisors and indigenous communities.	
	5.5	Cultural Heritage Protection Measures: The CHPP will support the identification of priorities and measures to protect cultural heritage values and sensitivities within the area.	
	5.6	Mitigation and Response: The CHPP will support the development of mitigation and response strategies for identified cultural heritage risks associated with the petroleum activity, reducing the likelihood and consequence of unplanned events with the potential to effect cultural values and sensitivities.	

	5.7	Collaboration: The CHPP shall be open to investment from other parties to further the growth and scope of the program if it continues to be effective.	Contractual/Funding Arrangements
CM06: MODU Mooring Plan	6.1a	Seabed surveys will be undertaken prior to finalising MODU position and location of mooring equipment.	Seabed Survey Records
	6.1b	Seabed survey data and seabed imagery will be analysed by a suitably qualified spatial benthic ecologist to identify benthic values and sensitivities and inform protection priorities, measures and reporting requirements. [EPS added in response to Matters: I13, I14 and I18].	Benthic Ecologist Report Mooring Plan
	6.2	ROV surveys will be undertaken prior to installing or removing the wellhead to minimise impacts to seabed features.	ROV Survey Records
	6.3	The Underwater Archaeology Report will be used in the development of the Mooring Plan, prior to finalising MODU position and location of mooring equipment, to avoid identified shipwrecks, aircraft and unexploded ordnance (UXO).	Site Survey Records No recordable incidents
	6.4	API RP 2SK or ISO 19901-7: 2013 – Mooring Analysis: A mooring analysis will be undertaken prior to anchoring to ensure the anchor pattern and any support operations, including use of thruster assisted mooring, are appropriate for the environment, to minimise the risk of anchor slippage which can result in increased benthic disturbance.	Documented Mooring Analysis
	6.5	ISO 19901-7:2013 – Mooring Tensioning: Monitoring of mooring tension will be undertaken while the MODU is anchored on location, to identify potential for anchor slippage which can result in increased benthic disturbance.	Control room logbook/ Database No recordable incidents
	6.6	Anchors will be located within the 2 km radius drilling area.	Documented Mooring Plan Anchor position mapping
	6.7	Subsea equipment retrieval: Upon well abandonment, all subsea equipment shall be removed from sea floor, with the exception of sandbags which will be left on the seafloor per USBL deployment requirements, with wellheads cut below mudline and retrieved to surface.	Drilling Report
	6.8	All mooring equipment will be retrieved from the sea floor within 3 months following the completion of the drilling campaign.	Drilling Report
	6.9	Anchors will be equipped with a surface buoy with a navigation light.	Operational Logs
	6.1	AUSCOAST Warnings will be requested for issue by AMSA for anchors equipped with a surface buoy.	Consultation Records AUSCOAST Warning
CM07: Light Management Plan Once safety navigation and operational lighting requirements for minimum lighting to maintain safe operations are met (as per vessel class and activity), the Light Management Plan will detail additional mitigations to manage light based on the information in the Seabird Light Mitigation Toolbox	7.1	ConocoPhillips Australia will contract a suitably qualified specialist to develop and support the implementation of a Light Management Plan, as per the National Light Pollution Guidelines for Wildlife (CoA 2023), for the activity. This Plan will be in place 30 days prior to the commencement of activities within the Operational Areas. [Updated in response to Matters: B10, B11 and B12].	Light Management Plan Qualifications of SQS
	7.2	The Light Management Plan will be developed in consultation with seabird specialists at NRE Tasmania (Org ID: 33, Environment Protection Authority (EPA) Tasmania, Event ID: 2521, FB ID: 85).	Consultation Records
	7.3	Outwards facing lighting will be reduced to minimum levels, wherever practicable.	Vetting Records Assurance Review HSE Inspections
	7.4	Directions to minimise non-essential lights (e.g. close blinds, turn lights off when leaving a room etc.) during sensitive timing (e.g. OBP migration season) will be included in the MODU and vessel inductions and periodic toolbox meetings.	Induction HSE Meetings HSE Inspections
	7.5	A program for handling /rescuing grounded birds will be designed and implemented, and crew will be instructed to remain vigilant for seabird collisions	Light Management Plan Induction HSE Meetings
	7.6	Any observed/ discovered incidents will be recorded and reported in the environmental performance report.	HSE Inspections No recordable incidents
	7.7	ConocoPhillips Australia will work with other petroleum titleholders in the Otway Basin with the aim of minimising the potential for cumulative impacts associated with light emissions, should activity timings overlap biologically important periods for light sensitive species.	Light Management Plan Consultation Records
	7.8	Report observation, incidents, and opportunities for improvement regarding light management and bird interactions to other Otway Titleholders.	Light Management Plan MoC Register/Reports Consultation Records
CM08: Fauna Management Plan (FMP) The FMP outlines specific measures to minimise anthropogenic noise threats to relevant species, including the implementation of increased safe operating distances between vessels and whales, pre-activity surveys for specific activities, night-time and low visibility controls and establishment of safe points for operational activities in accordance with the Safety Case and Well Integrity requirements (Org ID: 14, Department of Natural Resources and Environment Tasmania (NRE TAS), Event ID: 4145, FB ID: 40). [Updated in response to Matters: I16, M18, M22, M23, M26, B13, O03].	8.1	ConocoPhillips Australia will develop and implement a Fauna Management Plan (FMP) for the activity	Fauna Management Plan
	8.2	The FMP will be developed consultation with cetacean specialists, and reviewed with relevant state government departments, in Victoria and Tasmania (Org ID: 33, Environment Protection Authority (EPA) Tasmania, Event ID: 2521, FB ID: 85). [Updated in response to Matter: M26].	Consultation Records
	8.3	ConocoPhillips Australia will work with other petroleum titleholders in the offshore Otway Basin with the aim of minimising the potential for cumulative impacts associated with underwater sound, should activity timings overlap biologically important periods for southern right whales and blue whales.	Fauna Management Plan Consultation Records
	8.4	Observation, incidents, and opportunities for improvement will be reported to other petroleum titleholders in the Otway Basin regarding underwater sound management and whale interactions.	Consultation Records
	8.5	Pre-start actions, start criteria, night-time and low visibility arrangements and noise control actions as detailed in the Otway Exploration Drilling Program Fauna Management Plan (FMP) will be implemented.	Daily Report MMO Report
	8.6	**Marine Mammal Observers** • A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. • In addition, facility crew who act as Officer of the Watch will receive training from the MMO in whale observation and distance estimation to assist the MMO during daylight hours. • For activities greater than 5 consecutive days at sea with >12 hours daylight, an additional dedicated MMO trained in whale observation, distance estimation and reporting will support the experienced MMO. • As part of the Environment Plan induction all vessel and MODU crew will receive information on the WMP controls and the importance of reporting whale sightings to the vessel MMOs immediately.	MMO CVs MMO reports Training records Induction package Induction records
	8.7	Though the primary method for monitoring for whales is via the MMO on the activity vessels, information to determine the location of whales may also come from other activity vessel MMOs and vessel, MODU and helicopters opportunistic observations.	Daily Report MMO Report
	8.8	Aerial surveys will be conducted by experienced operators, with a proven track record of conducting aerial surveys for blue whales and southern right whales offshore of Victoria and Tasmania.	Survey Team CVs Capability Statement
	8.9	Aerial surveys will extend over the Activity Action Zones, and encompass a boundary extending beyond these zones.	Survey Records Flight Plans and Paths
	8.1	Prior to deploying acoustic detection systems, testing will be completed to validate their reliability and confirm the systems' capability to detect whales, including those emitting low-frequency calls	Validation Report
	8.11	Report marine fauna collisions via the online National Ship Strike Database as per the National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna.	Consultation records Incident Reports

CM09: Drilling Program The drilling program will align with international best practice standards including the World Bank Environmental, Health and Safety (EHS) Guidelines for Offshore Oil and Gas Development (IFC 2015) - Drilling Fluids and Drilled Cuttings Guidance in regard to pollution prevention and control measures for to discharges to sea including: • Minimising environmental hazards related to residual chemical additives on discharged cuttings by • Careful selection of the fluid system, • Careful selection of drilling fluid additives, taking into account their concentration, toxicity, bioavailability, and bioaccumulation potential. • Using high-efficiency solids control equipment to reduce the need for fluid change out, and • Using high-efficiency solids removal and treatment equipment to reduce and minimise the amount of residual fluid contained in drilled cuttings.	9.1	Prior to the commencement of the drilling campaign, an assurance check will be undertaken in accordance with the Management of Change Procedure.	MoC Register MoC Reports
	9.2	A cuttings management system with solids control equipment will be in place that uses a closed circulating system to reduce the concentration of drilling mud on cuttings prior to discharge, thereby reducing the total volume of mud discharged to sea. • The shale shakers will be fitted with screens that meet API standards for particle size cut points. • Centrifuges will be used as required to remove additional finer drilled cuttings/solids that are too small for the shale shakers.	Solids control daily reports Daily Drilling reports
	9.3	Drilling Fluids Control Program - Inventory Control: Only residual water-based fluid systems, brine, completion chemicals, cement and cement spacer within MODU mud pits and surface tanks that are no longer required will be diverted overboard.	Daily drilling reports
	9.4	Drilling Fluids Inventory Control: Unusable inventories of bulk cement, drilling fluid solid additives, brine and drill water on-board the MODU will be managed according to the procedure.	Daily mud reports
	9.5	Drilling Fluids Inventory Control: Inventory will be recycled for reuse before being disposed of overboard, where deemed suitable.	Drilling fluids end of well report
	9.6	Drilling Fluids Inventory Control: No whole synthetic-based drilling fluids will be discharged overboard.	PMS Records
	9.7	Drilling Fluids Inventory Control: Remaining synthetic-based drill fluid will be contained on board the MODU for use when drilling future wells.	
	9.8	Drilling Fluids Inventory Control: When unable to be reconditioned offshore, whole synthetic-based drill fluid will be transported to shore for reconditioning.	
	9.9	Cementing Procedure: A Cementing Procedure will be in place to minimise the amount of cement discharged to the marine environment, including: • Provision to mix only enough cement to complete the cementing operation with allowance for loss to formation and • the monitoring and reconciliation of used quantities of cement against planned quantities for each cementing operation.	Documented cementing procedure Cementing Report Daily drilling reports Well management standards
	9.10a	Unused bulk cement will not be released to the marine environment as a means of disposal where: • It can be transferred to the next MODU titleholder for use in the activities of others, where quality/grade permits; or • It can be safely backloaded to shore at the end of the program, as demonstrated through a documented HSE risk assessment. Where bulk cement cannot be transferred to the next operator or safely returned to shore, it may be mixed with water and discharged as a dilute slurry. Discharges may be minimised through the placement of additional non-barrier plugs within the wellbore, within wellbore volumetric and operational constraints.	Monitoring, reconciliation and backloading records Daily drilling report HSE Risk Assessment Consultation records Bulk/barge report
	9.10b	Unused bulk bentonite and/or barite will not be released to the marine environment as a means of disposal where: • It can be transferred to the next MODUs titleholder for use in the activities of others, where quality/grade permits; or • It can be safely backloaded to shore at the end of the program, as demonstrated through a documented HSE risk assessment. Where bulks cannot be transferred to the next operator or safely returned to shore, they may be mixed with water and discharged as a dilute slurry.	Monitoring, reconciliation and backloading records Daily drilling report HSE Risk Assessment Consultation records Bulk/barge report
	9.11	Solids Control Equipment (SCE) will be used to recondition and recycle non-aqueous drilling fluids and reduce the residual fluid on cuttings (ROC)% to ≤8% ROC (dry weight) per well section prior to overboard discharge.	Retort test results
	9.12	Retained oil on cuttings (ROC) will be monitored every 300 m whilst drilling with non-aqueous based drilling fluids or twice daily (whichever comes first).	
	9.13	Where losses are anticipated, drilling fluid will contain an engineered bridging agent to create a seal at the drilling fluid/formation interface to reduce the likelihood of fluid losses (Org ID: 13, King Island Marine Research, Event ID: 3129, Reg16b: 290, 291, 293).	Daily drilling reports Daily mud reports Drilling fluids end of well report
	9.14	The BOP will be routinely function and pressure tested in accordance with Industry Standard API-53: 2018, manufacturer's specifications and in alignment with Drilling Contractors preventative maintenance system, to minimise discharges of dilute water-soluble hydraulic fluid.	BOP maintenance records PMS Records
	9.15	Pre-operational function and pressure tests of the BOP will be conducted and may be witnessed by additional third-party prior to campaign.	BOP third party verification records
	9.16	VSP equipment will be operated in accordance with manufacturer's instructions and ongoing preventative maintenance to ensure efficient operation.	Inspection Reports PMS Reports
	9.17	Wireline extended reservoir evaluation, with associated venting of reservoir gas, may be conducted if suitability of method for application to specific reservoir is confirmed during the drilling program.	Daily drilling reports Vented volumes
	9.18	Initiate drilling with a minimum 15 minute duration soft-start procedure, whereby drilling commences at a slower rate to minimise downhole vibrations and torque, effectively reducing the initial sound levels from this activity and allowing for fauna to move away. [EPS added in response to Matter: M35]	Daily drilling reports
CM10: Well Testing Program	10.1	Flaring will be limited to a maximum of 120 hours per well.	Operational Log
	10.2	For each well test, the initial flaring event will commence during daylight hours to reduce the impact of the initial event. However, the timing of subsequent events at each well will be determined by operational safety and testing requirements.	Operational Log
	10.3	Prior to the commencement of the initial flaring event at each well, the area extending from the tip of the flare will be visually confirmed clear of birds.	Operational Log Incident Reports
	10.4	Flaring durations and hydrocarbon volumes flared will be recorded and combustion emissions reported by the relevant facility operator in alignment with the National Greenhouse and Energy Reporting Act 2007 and/or associated international standards.	Operational Log Flared volumes NGERs Reports (or equivalent)
CM11: Procurement Vetting Process	11.1	A flaring system with air compressors will be used to atomise hydrocarbons to minimise smoke during combustion and aid in the reduction of atmospheric emissions.	Minimum equipment requirements Vetting Records Assurance Review (Acceptance)
	11.2	A minimum standard for the destruction efficiency of the flare will be specified in the minimum equipment requirements.	Minimum equipment requirements

	11.3	VSP equipment will be inspected prior to deployment and confirmed operation in accordance with manufacturer's specifications.	Inspection Reports Vetting Records Assurance Review
	11.4	Third party equipment used to treat planned discharges, e.g. centrifuges, cuttings driers, etc will be verified as fit for purpose.	Vetting Records Assurance Review (Third-party Acceptance)
	11.5	The seabed survey contract will require the collection of representative sediment samples from grab samples collected to validate geophysical survey data, with storage and transport onshore for benthic analysis. (Org ID: 9, University of Tasmania (UTAS), Event ID: 43, FB ID: 7; Org ID: 524, Wilderness Society, Event ID: 3480, FB ID: 382, 384, 387; Org ID: 111, Australian Marine Conservation Society, Event ID: 3785, FB ID: 357).	Seabed Survey Contract Site Survey Records Analysis Reports
	11.6	During procurement of aviation services, an assessment of operational considerations to prevent bird collisions will be conducted.	Procurement vetting records Incident Reports
CM12: General and Hazardous Chemical Management Procedures	12.1	Chemical Management Procedures for general and hazardous chemicals and hydrocarbons, will be in place, including requirements for: • Chemical selection process • Safety data sheet (SDS) being available for all chemicals • Storage, handling and use • Deck drain management • Inspections • Non-compliances and incidents • Process to isolate hazardous chemicals remaining on board from previous operations.	HSE Inspections Vetting Records Assurance Review (Acceptance) No recordable incidents
	12.2	A Chemical Selection Procedure will be in place to ensure chemicals that have the potential to be discharged to the marine environment are rated Gold/Silver/D or E through Oslo and Paris Conventions (OSPAR) and Offshore Chemical Notification Scheme (OCNS) or have a complete risk assessment.	Chemical Management Procedure Completed and approved chemical assessment Approved Chemical Register No recordable incidents
	12.3	Materials and equipment that have the potential to spill onto the deck or marine environment will be stored within a contained area.	HSE Inspections Daily Reports No recordable incidents
	12.3	Barite Quality Standard: Barite will adhere to the IFC EHS guidelines (2015) effluent levels of 1 mg/kg of Hg (dry weight) and no more than 3 mg/kg of Cd (dry weight). (Org ID: 13, King Island Marine Research, Event ID: 3129, FB ID: 283, 304, 313, 333)	Testing records Daily drilling reports Daily mud reports
CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP)	13.1	Emergency spill response capability will be maintained in accordance with the accepted OPEP. (Org ID: 111, Australian Marine Conservation Society, Event ID: 4153, FB ID: 455)	Outcomes of internal audits and tests demonstrating preparedness
	13.2	Spill response will be implemented in accordance with relevant EPOs and EPS in the accepted OPEP.	EMT/IMT Log Incident Action Plan
CM14: Operational and Scientific Monitoring Program (OSMP)	14.1	Operational and scientific monitoring capability will be maintained in accordance with the OSMP.	As per OSMP
	14.2	One month prior to the commencement of drilling a review of the contracted OSMP provider(s) capability will be undertaken to ensure that the OSMP requirements can be met.	Capability Review
	14.3	The contracted OSMP provider(s) capability to meet the requirements detailed in the OSMP will be tested prior to commencing drilling.	Capability Test Report
	14.4	During drilling the contracted OSMP provider(s) will provide a monthly report to show that capability as detailed in the OSMP is maintained.	OSMP Monthly Report
CM15: Well Design and Delivery Process (WDDP) The WDDP shall be applied to manage operational risks associated with drilling to ALARP; document changes to drilling design and implementation; demonstrate alignment with relevant well design and drilling standards; and track organisational competency for ConocoPhillips Australia drilling personnel.	15.1	Well construction and abandonment processes will be implemented in accordance with the ConocoPhillips Well Engineering Design and Construction Standards and Manuals to manage operational risks associated with drilling to ALARP, including, but not limited to: • Well Construction and Intervention Standard • Well Management Standard • Well Control Manual • Casing and Tubing Design Manual • Well Design and Delivery Process Manual • Well Integrity Manual • Wells Competency Management Manual	Well Design and Delivery Process Records Well Acceptance Criteria Accepted WOMP Daily Reports
	15.2	Well Design and Plan Approval: All aspects of risk profiling, well construction and abandonment design will be peer reviewed and approved by ConocoPhillips management at each stage.	Well Design and Delivery Process Records
CM16: Source Control Emergency Response Plan (SCREP), inclusive of Relief Well Plan	16.1	Prior to drilling each well covered under this EP, there will be a campaign-specific source control plan in place.	SCERP
	16.2	Prior to campaign commencement a register of suitable relief well MODU's will be compiled and then maintained and updated on a 14 day basis.	Relief well capability register confirms MODU availability
	16.3	Emergency response capability to implement an effective well kill operation will be maintained in accordance with the SCERP.	Outcomes of internal audits and tests/drills demonstrating preparedness
	16.4	The SCERP will be consistent with the International Oil and Gas Producers (IOGP) Report 594 - Subsea Well Source Control Emergency Response Planning Guide for Subsea Wells (2019), specifically detailing: • The structure and function of the wells Emergency Team (WET) • A timeline for the effective implementation of source control key events / actions • A well-specific worst-case discharge (WCD) analysis • Gas plume study • Relief well plan including dynamic kill analysis	SCERP

		• APPEA MoU to be in place for mutual assistance i.e. relief well planning.	
	16.5	Relief Well Design Assessment (pre-drilling): An assessment to identify and screen relief well spud locations will be conducted prior to the drilling campaign to reduce the time taken to plan and execute a relief well, thereby reducing environmental impacts.	Seabed surveys of relief well locations Documented campaign relief well plan developed in line with OGUK guidance prior to drilling.
	16.6	A pre-purchase or access agreement will be in place for relief drilling supplies, including long-lead items such as casing, casing shoes and wellhead equipment, to reduce relief well drilling times reducing environmental impacts.	Access Agreement Equipment inventory
	16.7	A contract will be in place to support hot stab and/or direct well intervention via ROV (via either ROV available on rig and/or additional ROV to be supplied) using source control equipment and trained personnel from contracted company.	AMOSC SFRT membership ROV Contract
	16.8	Prior to intersecting the target reservoir at each well, ConocoPhillips Drilling and Completions Source Control Branch Director will be identified and confirmed as available to be activated within 2 hours, should activation of the IMT occur	IMT Roster during activity
	16.9	Prior to intersecting the target reservoir at each well, ConocoPhillips Drilling and Completions Source Control Team will be identified and confirmed as available to be activated and mobilised within 24 hours, should activation of IMT occur.	Training and Exercising
	16.1	Contract(s) and memorandums of understanding (MOU) will be in place for source control personnel.	Global agreement with Well Control Specialist Signed APPEA MOU
	16.11	Prior to intersecting the target reservoir at each well, Well Control Specialists will be identified and confirmed accessible remotely within 24 hours with mobilisation within 72 hours, should activation of the IMT occur, to support diagnosis of well condition and development of remedial action options.	Training and Exercising
	16.12	Membership will be in place for the AMOSC Subsea First Response Toolkit (SFRT), which provides for surveillance, debris clearance and trained responders, as well as subsea dispersant application.	AMOSC SFRT membership
CM17: NOPSEMA Accepted Well Operations Management Plan	17.1	Well integrity shall be maintained in accordance with the NOPSEMA accepted Well Operations Management Plan	NOPSEMA accepted WOMP in place
CM18: Financial assurance for offshore activity	18.1	ConocoPhillips Australia will hold financial assurance for the Otway Exploration Drilling Program, as per the OPGGS Act and the Environment Regulations for undertaking a petroleum activity under a petroleum title. The FA will be calculated using an independently validated, NOPSEMA-endorsed method to estimate the greatest reasonably credible costs, expenses and liabilities associated with response, clean up, and monitoring the impacts of an escape of petroleum; and will be available in an appropriate form, maintained and accessible.	Financial Assurance Declaration to NOPSEMA (FM1519) Financial Assurance Confirmation submitted to NOPSEMA (FM1465) prior to acceptance of the environment plan MoC events

APPENDIX B EPBC PMST REPORTS

Australian Government

Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

Summary

Details

Matters of NES

Other Matters Protected by the EPBC Act

Extra Information

Caveat

Acknowledgements



Figure: Permit T/49P Operational Area

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	14
Key Ecological Features (Marine):	1
Biologically Important Areas:	20
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
FISH		
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
MAMMAL		
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
REPTILE		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
SHARK		
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Ardenna carneipes as Puffinus carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea as Puffinus griseus		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Fish		
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis		
Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps		
Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur		
Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii		
Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus		
Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		

Scientific Name	Threatened Category	Presence Text
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area
Reptile		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence
Mammal		
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Current Scientific Name	Status	Type of Presence
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area
[Mesoplodon densirostris](#) Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
[Mesoplodon hectori](#) Hector's Beaked Whale [76]		Species or species habitat may occur within area
[Mesoplodon layardii](#) Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
[Mesoplodon mirus](#) True's Beaked Whale [54]		Species or species habitat may occur within area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area
[Pseudorca crassidens](#) False Killer Whale [48]		Species or species habitat likely to occur within area
[Tursiops truncatus s. str.](#) Bottlenose Dolphin [68417]		Species or species habitat may occur within area
[Ziphius cavirostris](#) Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Controlled action			
Otway Development	2002/621	Controlled Action	Post-Approval
Not controlled action			
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Not controlled action (particular manner)			
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		(Particular Manner)	
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur

Scientific Name	Behaviour	Presence
Balaenoptera musculus brevicauda		
Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Eubalaena australis		
Southern Right Whale [40]	Known core range	Known to occur

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 17-Aug-2023

Summary

Details

Matters of NES

Other Matters Protected by the EPBC Act

Extra Information

Caveat

Acknowledgements



Figure: Permit VIC/P79 South operational area

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	38
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	61
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	20
Key Ecological Features (Marine):	1
Biologically Important Areas:	17
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
Commonwealth Marine Areas (EPBC Act)

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
FISH		
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
MAMMAL		
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
REPTILE		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
SHARK		

Scientific Name	Threatened Category	Presence Text
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Caperea marginata		
Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Eubalaena australis as Balaena glacialis australis		
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Isurus oxyrinchus		
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]		Species or species habitat likely to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Ardenna carneipes as Puffinus carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea as Puffinus griseus		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Migration route may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Fish		
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
[Hypselognathus rostratus](#) Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
[Kaupus costatus](#) Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
[Leptoichthys fistularius](#) Brushtail Pipefish [66248]		Species or species habitat may occur within area
[Lissocampus caudalis](#) Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area

Current Scientific Name	Status	Type of Presence
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Extra Information

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Not controlled action (particular manner)			
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023



Figure: Permit VIC/P79 North Operational Area

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	39
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	61
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	16
Key Ecological Features (Marine):	None
Biologically Important Areas:	19
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
FISH		
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
MAMMAL		
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
REPTILE		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
SHARK		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Centrophorus uyato listed as Centrophorus zeehaani Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
Ardenna grisea Sooty Shearwater [82651]		Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area
Migratory Wetlands Species		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Ardenna carneipes as Puffinus carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
Ardenna grisea as Puffinus griseus		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Migration route may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Fish		
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
[Hypselognathus rostratus](#) Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
[Kaupus costatus](#) Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area
Reptile		

Scientific Name	Threatened Category	Presence Text
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area

Current Scientific Name	Status	Type of Presence
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Mesoplodon densirostris](#) Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
[Mesoplodon grayi](#) Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
[Mesoplodon hectori](#) Hector's Beaked Whale [76]		Species or species habitat may occur within area
[Mesoplodon layardii](#) Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
[Mesoplodon mirus](#) True's Beaked Whale [54]		Species or species habitat may occur within area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area
[Pseudorca crassidens](#) False Killer Whale [48]		Species or species habitat likely to occur within area
[Tursiops truncatus s. str.](#) Bottlenose Dolphin [68417]		Species or species habitat may occur within area
[Ziphius cavirostris](#) Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Extra Information

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Not controlled action			
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Not controlled action (particular manner)			
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed

Biologically Important Areas		
Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Eubalaena australis Southern Right Whale [40]	Aggregation	Known to occur
Eubalaena australis Southern Right Whale [40]	Known core range	Known to occur

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

[Summary](#)

[Details](#)

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

[Caveat](#)

[Acknowledgements](#)



Figure: Permit T/49P 2 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	14
Key Ecological Features (Marine):	1
Biologically Important Areas:	20
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Stercorarius antarcticus as Catharacta skua](#) Brown Skua [85039]		Species or species habitat may occur within area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		(Particular Manner)		
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 17-Aug-2023

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[Other Matters Protected by the EPBC Act](#)
[Extra Information](#)
[Caveat](#)
[Acknowledgements](#)

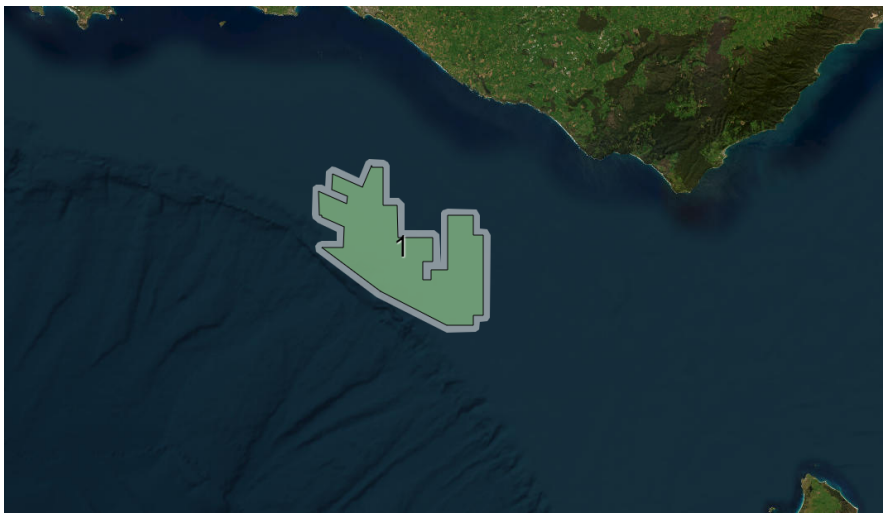


Figure: Permit VIC/P79 South 2 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	38
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	61
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	22
Key Ecological Features (Marine):	1
Biologically Important Areas:	17
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi			
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche steadi](#)			
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
[Balaenoptera bonaerensis](#)			
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#)			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#)			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#)			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Caperea marginata](#)			
Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Carcharodon carcharias](#)			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Caretta caretta](#)			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#)			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#)			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Eubalaena australis as Balaena glacialis australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Isurus oxyrinchus			
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
Lagenorhynchus obscurus			
Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lamna nasus			
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
Megaptera novaeangliae			
Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Orcinus orca			
Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus			
Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
[Hypselognathus rostratus](#) Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
[Kaupus costatus](#) Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
[Leptoichthys fistularius](#) Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
[Lissocampus caudalis](#) Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Stigmatopora nigra](#) Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
[Stipecampus cristatus](#) Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
[Urocampus carinirostris](#) Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
[Vanacampus margaritifer](#) Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
[Vanacampus phillipi](#) Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
[Vanacampus poecilolaemus](#) Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area	In feature area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals			[Resource Information]	
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit VIC/P79 North 2 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	14
Key Ecological Features (Marine):	1
Biologically Important Areas:	20
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Stercorarius antarcticus as Catharacta skua](#) Brown Skua [85039]		Species or species habitat may occur within area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		(Particular Manner)		
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 23-Aug-2023

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements



Figure: T/49P 3.59 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	14
Key Ecological Features (Marine):	1
Biologically Important Areas:	19
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Stercorarius antarcticus as Catharacta skua](#) Brown Skua [85039]		Species or species habitat may occur within area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Key Ecological Features

[Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica			
Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris			
Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 23-Aug-2023

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements



Figure: Permit VIC/P79 South 3.59 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	39
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	61
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	23
Key Ecological Features (Marine):	1
Biologically Important Areas:	17
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
Reptile			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica			
Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 23-Aug-2023



Figure: Permit VIC/P79 North 3.59 km Noise EMBA

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
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Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	39
Listed Migratory Species:	40

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	62
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	19
Key Ecological Features (Marine):	1
Biologically Important Areas:	17
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Spinifex Offshore Surveys	2022/09359		Completed	In feature area
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed	In feature area
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status

Name	Region	Buffer Status
Bonney Coast Upwelling	South-east	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

Summary
Details
Matters of NES
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Figure: Permit T/49P 12.6 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	39
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	61
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	30
Key Ecological Features (Marine):	1
Biologically Important Areas:	19
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
Reptile			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval	In buffer area only
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed	In buffer area only
Gas Field Development	2006/2635	Not Controlled Action	Completed	In buffer area only
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
Eubalaena australis Southern Right Whale [40]	Aggregation	Known to occur	In feature area
Eubalaena australis Southern Right Whale [40]	Known core range	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 17-Aug-2023

[Summary](#)
[Details](#)
[Matters of NES](#)
[Other Matters Protected by the EPBC Act](#)
[Extra Information](#)
[Caveat](#)
[Acknowledgements](#)

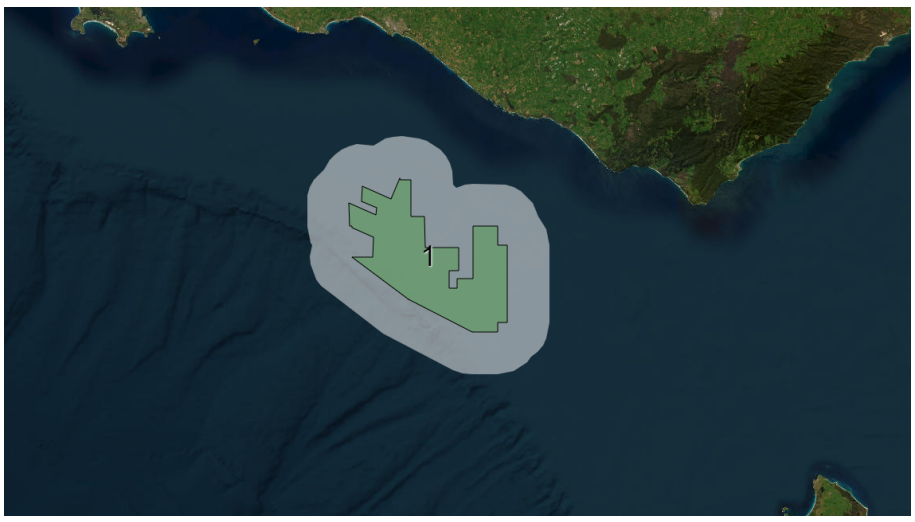


Figure: Permit VIC/P79 South 12.6 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	39
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	61
Whales and Other Cetaceans:	27
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	29
Key Ecological Features (Marine):	1
Biologically Important Areas:	17
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area
Commonwealth Marine Areas (EPBC Act)	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
Reptile			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval	In buffer area only
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed	In buffer area only
Gas Field Development	2006/2635	Not Controlled Action	Completed	In buffer area only
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements

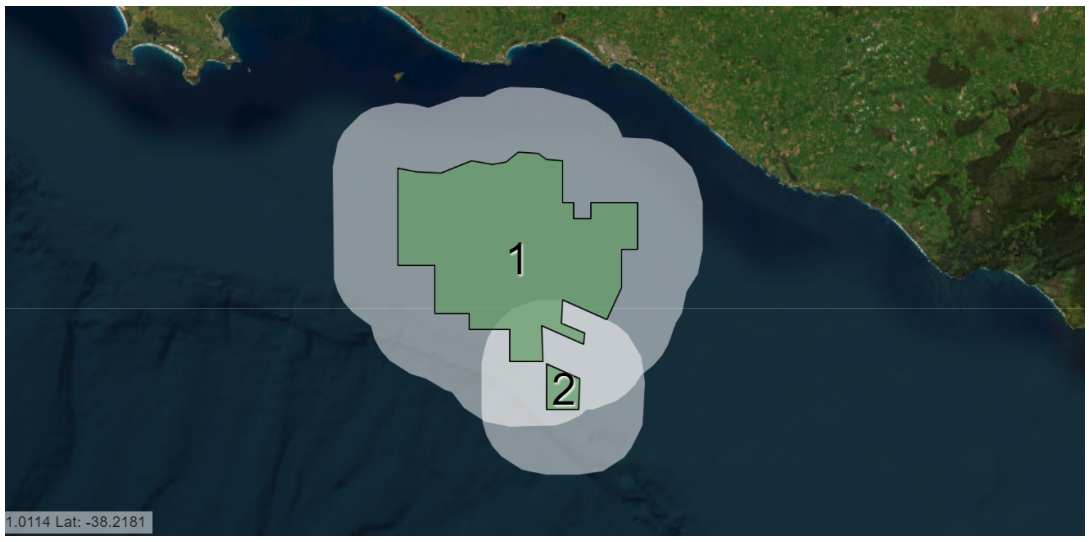


Figure: Permit VIC/P79 North 12.6 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	22
Key Ecological Features (Marine):	1
Biologically Important Areas:	20
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Stercorarius antarcticus as Catharacta skua](#) Brown Skua [85039]		Species or species habitat may occur within area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In buffer area only
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In buffer area only
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed	In buffer area only

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
Eubalaena australis Southern Right Whale [40]	Known core range	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 20-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit T/49P 22.8 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	40

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	64
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	23
Key Ecological Features (Marine):	1
Biologically Important Areas:	23
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
Reptile			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans			[Resource Information]
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area	In feature area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In buffer area only
Not controlled action				

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In buffer area only
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed	In buffer area only

Key Ecological Features

[Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica			
Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris			
Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur	In buffer area only
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In buffer area only
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur	In buffer area only
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
[Carcharodon carcharias](#) White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
[Carcharodon carcharias](#) White Shark [64470]	Foraging	Known to occur	In buffer area only
[Carcharodon carcharias](#) White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 20-Aug-2023

[Summary](#)

[Details](#)

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

[Caveat](#)

[Acknowledgements](#)

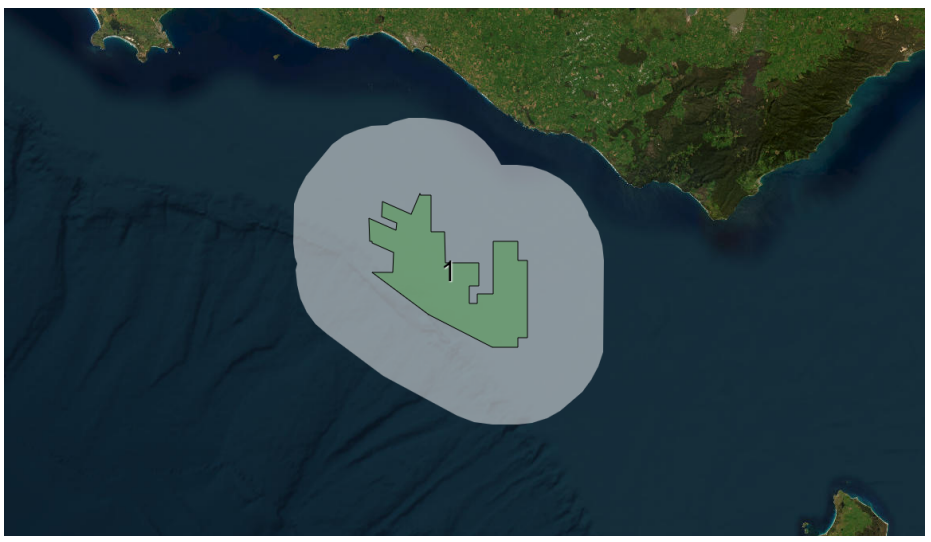


Figure: Permit VIC/P79 South 22.8 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	40

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	37
Key Ecological Features (Marine):	1
Biologically Important Areas:	18
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area
Commonwealth Marine Areas (EPBC Act)	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Vanacampus poecilolaemus](#) Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
[Mesoplodon densirostris](#) Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
[Mesoplodon hectori](#) Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
[Mesoplodon layardii](#) Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
[Mesoplodon mirus](#) True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
[Pseudorca crassidens](#) False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval	In buffer area only
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed	In buffer area only
Gas Field Development	2006/2635	Not Controlled Action	Completed	In buffer area only
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed	In buffer area only
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In buffer area only
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 20-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit VIC/P79 North 22.8 km Noise EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	80
Listed Migratory Species:	66

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	105
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	8
Regional Forest Agreements:	1
Nationally Important Wetlands:	3
EPBC Act Referrals:	41
Key Ecological Features (Marine):	2
Biologically Important Areas:	18
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Historic			
Great Ocean Road and Scenic Environs	VIC	Listed place	In buffer area only

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In feature area
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area	In buffer area only
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area	In buffer area only
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area	In buffer area only
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community may occur within area	In buffer area only
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area	In buffer area only
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Rostratula australis](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Stagonopleura guttata](#) Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Sternula nereis nereis](#) Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma			
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini			
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thinornis cucullatus cucullatus			
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
CRUSTACEAN			
Euastacus bispinosus			
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area	In buffer area only
FISH			
Galaxiella pusilla			
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Nannoperca obscura](#)			
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Prototroctes maraena](#)			
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Seriolella brama](#)			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#)			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
FROG			
[Litoria raniformis](#)			
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
[Antechinus minimus maritimus](#)			
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Balaenoptera borealis](#)			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera musculus](#)			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#)			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Dasyurus maculatus maculatus (SE mainland population)](#)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Isoodon obesulus obesulus](#) Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat likely to occur within area	In buffer area only
[Mastacomys fuscus mordicus](#) Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Miniopterus orianae bassanii](#) Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area	In buffer area only
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In feature area
[Petaurus australis australis](#) Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Potorous tridactylus trisulcatus](#) Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Pseudomys novaehollandiae](#) New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In buffer area only
PLANT			
[Amphibromus fluitans](#) River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Glycine latrobeana](#) Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Lepidium aschersonii](#) Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area	In buffer area only
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area	In buffer area only
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Lissolepis coventryi			
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area	In buffer area only
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Ardenna tenuirostris			
Short-tailed Shearwater [82652]		Breeding known to occur within area	In buffer area only
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In buffer area only
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Breeding known to occur within area	In buffer area only
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat likely to occur within area	In buffer area only
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area	In buffer area only
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area	In buffer area only
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In buffer area only
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area	In buffer area only
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pluvialis fulva](#) Pacific Golden Plover [25545]		Roosting known to occur within area	In buffer area only
[Thalasseus bergii](#) Greater Crested Tern [83000]		Breeding known to occur within area	In buffer area only
[Tringa brevipes](#) Grey-tailed Tattler [851]		Roosting known to occur within area	In buffer area only
[Tringa glareola](#) Wood Sandpiper [829]		Roosting known to occur within area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In buffer area only
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Anseranas semipalmata](#) Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
[Ardenna carneipes as Puffinus carneipes](#) Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area	In feature area
[Ardenna grisea as Puffinus griseus](#) Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
[Ardenna tenuirostris as Puffinus tenuirostris](#) Short-tailed Shearwater [82652]		Breeding known to occur within area	In buffer area only
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area	In buffer area only
[Bubulcus ibis as Ardea ibis](#) Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In buffer area only
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area	In buffer area only
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area	In buffer area only
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area	In buffer area only
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area	In buffer area only
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In buffer area only
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In buffer area only
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Breeding known to occur within area overfly marine area	In buffer area only
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Neophema chrysostoma](#) Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Numenius minutus](#) Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area	In buffer area only
[Numenius phaeopus](#) Whimbrel [849]		Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area	In buffer area only
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula albifrons as Sterna albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalasseus bergii as Sterna bergii](#) Greater Crested Tern [83000]		Breeding known to occur within area	In buffer area only
[Thinornis cucullatus as Thinornis rubricollis](#) Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa brevipes as Heteroscelus brevipes](#) Grey-tailed Tattler [851]		Roosting known to occur within area overfly marine area	In buffer area only
[Tringa glareola](#) Wood Sandpiper [829]		Roosting known to occur within area overfly marine area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area	In buffer area only
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State	Buffer Status
Bay of Islands Coastal Park	Conservation Park	VIC	In buffer area only
Goose Lagoon W.R	Natural Features Reserve	VIC	In buffer area only
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC	In buffer area only
Lake Aringa W.R	Nature Conservation Reserve	VIC	In buffer area only
Lake Gillear W.R	Natural Features Reserve	VIC	In buffer area only
Merri	Marine Sanctuary	VIC	In buffer area only
Tower Hill W.R	Natural Features Reserve	VIC	In buffer area only
Yambuk F.F.R.	Nature Conservation Reserve	VIC	In buffer area only

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
West Victoria RFA	Victoria	In buffer area only

Nationally Important Wetlands [Resource Information]

Wetland Name	State	Buffer Status
Lower Merri River Wetlands	VIC	In buffer area only

Wetland Name	State	Buffer Status
Tower Hill	VIC	In buffer area only
Yambuk Wetlands	VIC	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Spinifex Offshore Surveys	2022/09359		Completed	In feature area
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval	In buffer area only
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed	In buffer area only
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed	In buffer area only
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed	In feature area
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed	In buffer area only
Gas Field Development	2006/2635	Not Controlled Action	Completed	In buffer area only
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed	In buffer area only
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed	In buffer area only
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed	In buffer area only
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed	In buffer area only
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed	In buffer area only
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed	In buffer area only
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In feature area
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
Bonney Coast Upwelling	South-east	In buffer area only
West Tasmania Canyons	South-east	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur	In buffer area only
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

[Summary](#)

[Details](#)

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

[Caveat](#)

[Acknowledgements](#)



Figure: Permit T/49P 20 km Light EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	23
Key Ecological Features (Marine):	1
Biologically Important Areas:	23
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Stercorarius antarcticus as Catharacta skua](#) Brown Skua [85039]		Species or species habitat may occur within area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In buffer area only
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2008/3962	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In buffer area only
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed	In buffer area only

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In buffer area only
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur	In buffer area only
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In buffer area only
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 17-Aug-2023

[Summary](#)
[Details](#)
[Matters of NES](#)
[Other Matters Protected by the EPBC Act](#)
[Extra Information](#)
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[Acknowledgements](#)

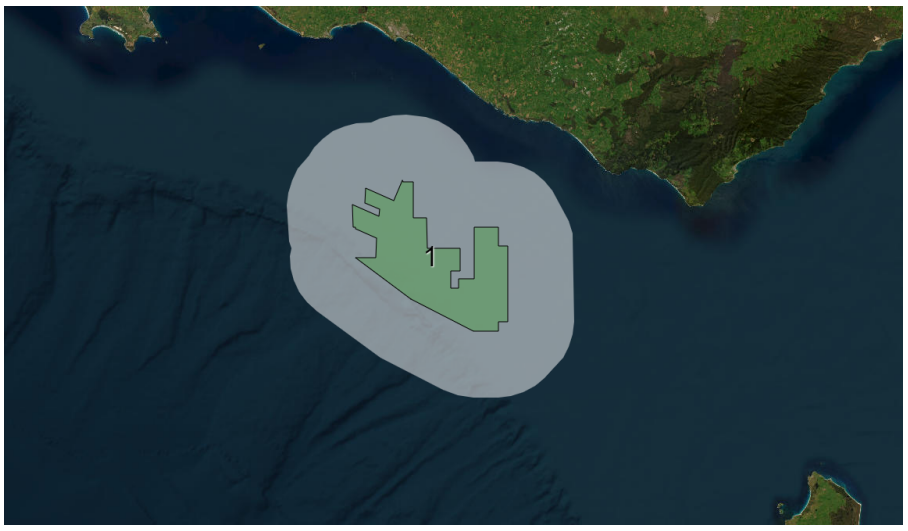


Figure: Permit VIC/P79 South 20 km Light EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	40

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	35
Key Ecological Features (Marine):	1
Biologically Important Areas:	18
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In buffer area only
Commonwealth Marine Areas (EPBC Act)	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
FISH			
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Vanacampus poecilolaemus](#) Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
[Mesoplodon densirostris](#) Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
[Mesoplodon hectori](#) Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
[Mesoplodon layardii](#) Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
[Mesoplodon mirus](#) True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
[Pseudorca crassidens](#) False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval	In buffer area only
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Not controlled action				
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed	In buffer area only
Gas Field Development	2006/2635	Not Controlled Action	Completed	In buffer area only
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed	In buffer area only
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Referral decision				

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In buffer area only
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

Summary

Details

Matters of NES

Other Matters Protected by the EPBC Act

Extra Information

Caveat

Acknowledgements

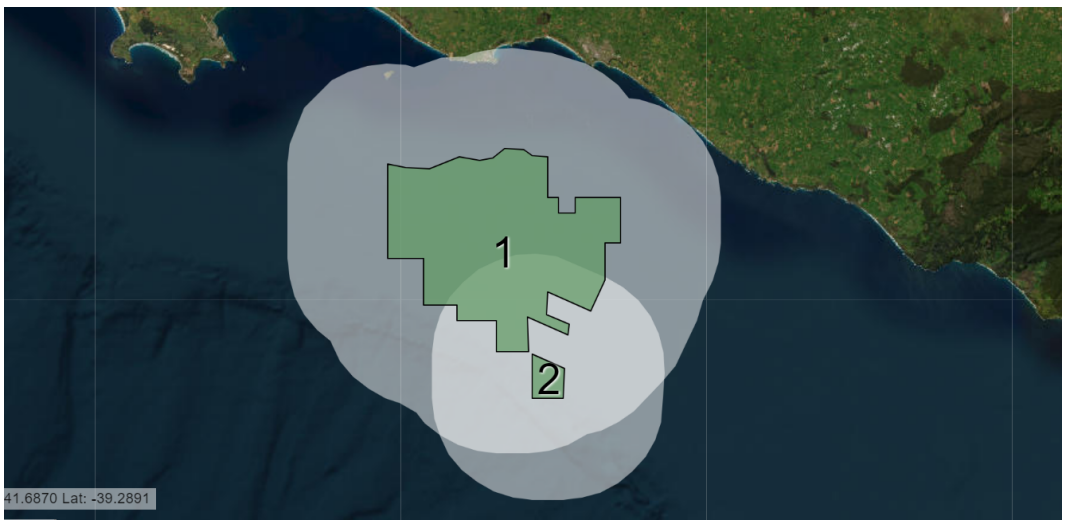


Figure: Permit VIC/P79 North 20 km Light EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	40
Listed Migratory Species:	39

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	28
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	23
Key Ecological Features (Marine):	1
Biologically Important Areas:	23
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Fregetta grallaria grallaria](#) White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Halobaena caerulea](#) Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Macronectes halli](#) Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Neophema chrysogaster](#) Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Pachyptila turtur subantarctica](#) Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma leucoptera leucoptera](#) Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
Seriolella brama			
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus			
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eubalaena australis			
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
REPTILE			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Ardenna carneipes as Puffinus carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Pterodroma mollis](#) Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
[Stercorarius antarcticus as Catharacta skua](#) Brown Skua [85039]		Species or species habitat may occur within area	In feature area
[Sterna striata](#) White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Fish			
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In buffer area only
Not controlled action				
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2008/3962	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In buffer area only
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed	In buffer area only

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In buffer area only
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur	In buffer area only
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In buffer area only
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit T/49P 50 km Flaring EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	88
Listed Migratory Species:	58

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	6
Commonwealth Heritage Places:	1
Listed Marine Species:	94
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	4
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	41
Regional Forest Agreements:	2
Nationally Important Wetlands:	9
EPBC Act Referrals:	38
Key Ecological Features (Marine):	1
Biologically Important Areas:	29
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Historic			
Great Ocean Road and Scenic Environs	VIC	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Lavinia	Within Ramsar site	In buffer area only

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area	In buffer area only
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area	In buffer area only
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within area	In buffer area only
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area	In buffer area only
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community may occur within area	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi			
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area	In buffer area only
Acanthornis magna greeniana			
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Aquila audax fleayi			
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat may occur within area	In buffer area only
Botaurus poiciloptilus			
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Callocephalon fimbriatum			
Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Ceyx azureus diemenensis			
Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat known to occur within area	In buffer area only
Charadrius leschenaultii			
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area	In feature area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Thinornis cucullatus cucullatus](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
FISH			
[Galaxiella pusilla](#) Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Hoplostethus atlanticus](#) Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
[Nannoperca obscura](#) Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Rexea solandri (eastern Australian population)](#) Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
FROG			
[Litoria raniformis](#) Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
[Antechinus minimus maritimus](#) Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Dasyurus maculatus maculatus (SE mainland population)](#) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isoodon obesulus obesulus](#) Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Mastacomys fuscus mordicus](#) Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Roosting known to occur within area	In buffer area only
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area	In buffer area only
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area	In buffer area only
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In buffer area only
PLANT			
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area	In buffer area only
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat may occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Lissolepis coventryi			
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat likely to occur within area	In buffer area only
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In buffer area only
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area	In buffer area only
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area	In buffer area only
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Arenaria interpres](#) Ruddy Turnstone [872]		Species or species habitat known to occur within area	In buffer area only
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Species or species habitat known to occur within area	In buffer area only
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Tringa nebularia](#)			
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In buffer area only
[Tringa stagnatilis](#)			
Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [60114]	TAS	In buffer area only
Commonwealth Land - [21583]	VIC	In buffer area only
Commonwealth Land - [21492]	VIC	In buffer area only
Commonwealth Land - [60111]	TAS	In buffer area only
Commonwealth Land - [60112]	TAS	In buffer area only
Commonwealth Land - [60113]	TAS	In buffer area only

Commonwealth Heritage Places [Resource Information]

Name	State	Status	Buffer Status
Historic			
[Cape Wickham Lighthouse](#)	TAS	Listed place	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
[Actitis hypoleucos](#)			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Apus pacificus](#)			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In buffer area only
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In buffer area only
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In buffer area only
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In buffer area only
Stercorarius antarcticus as Catharacta skua			
Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata			
White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Sternula albifrons as Sterna albifrons			
Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri			
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov.			
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri			
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma			
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Thinornis cucullatus as Thinornis rubricollis](#) Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
Reptile			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Franklin	Multiple Use Zone (IUCN VI)	In buffer area only
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Aire River	Heritage River	VIC	In buffer area only
Aire River W.R.	Natural Features Reserve	VIC	In buffer area only
Badger Box Creek	Nature Reserve	TAS	In buffer area only
Cape Wickham	Conservation Area	TAS	In buffer area only
Cape Wickham	State Reserve	TAS	In buffer area only
Cataraqui Point	Conservation Area	TAS	In buffer area only
Christmas Island	Nature Reserve	TAS	In buffer area only
Colliers Forest Reserve	Conservation Covenant	TAS	In buffer area only
Colliers Swamp	Conservation Area	TAS	In buffer area only
Currie Lightkeepers Residence	Historic Site	TAS	In buffer area only
Deep Lagoons	Conservation Area	TAS	In buffer area only
Disappointment Bay	State Reserve	TAS	In buffer area only
Gentle Annie	Conservation Area	TAS	In buffer area only
Great Otway	National Park	VIC	In buffer area only
Johanna Falls S.R.	Natural Features Reserve	VIC	In buffer area only
Kentford Forest	Conservation Area	TAS	In buffer area only
Kentford Forest	Nature Reserve	TAS	In buffer area only
Kentford Rd Nugara	Conservation Covenant	TAS	In buffer area only
Latrobe B.R.	Natural Features Reserve	VIC	In buffer area only
Lavinia	State Reserve	TAS	In buffer area only
Lily Lagoon	Nature Reserve	TAS	In buffer area only
Lymwood	Conservation Covenant	TAS	In buffer area only
Muddy Lagoon	Nature Reserve	TAS	In buffer area only
New Year Island	Game Reserve	TAS	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Parker River	Reference Area	VIC	In buffer area only
Porky Beach	Conservation Area	TAS	In buffer area only
Port Campbell	National Park	VIC	In buffer area only
Red Hut Point	Conservation Area	TAS	In buffer area only
Red Hut Road #1	Conservation Covenant	TAS	In buffer area only
Red Hut Road #2	Conservation Covenant	TAS	In buffer area only
Sartoris Rd Nugara	Conservation Covenant	TAS	In buffer area only
Seal Rocks	Conservation Area	TAS	In buffer area only
Seal Rocks	State Reserve	TAS	In buffer area only
South Rd Nugara	Conservation Covenant	TAS	In buffer area only
Stokes Point	Conservation Area	TAS	In buffer area only
Stony Creek (Otways)	Reference Area	VIC	In buffer area only
Tambar	Conservation Covenant	TAS	In buffer area only
Tathams Lagoon	Conservation Area	TAS	In buffer area only
Tin Mine Rd Loorana	Conservation Covenant	TAS	In buffer area only
Twelve Apostles	Marine National Park	VIC	In buffer area only
Wicks Road Nugara	Conservation Covenant	TAS	In buffer area only

Regional Forest Agreements

[Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
Tasmania RFA	Tasmania	In buffer area only
West Victoria RFA	Victoria	In buffer area only

Nationally Important Wetlands

[Resource Information]

Wetland Name	State	Buffer Status
Aire River	VIC	In buffer area only
Bungaree Lagoon	TAS	In buffer area only
Lake Flannigan	TAS	In buffer area only

Wetland Name	State	Buffer Status
Lower Aire River Wetlands	VIC	In buffer area only
Pearshape Lagoon 1	TAS	In buffer area only
Pearshape Lagoon 2	TAS	In buffer area only
Pearshape Lagoon 3	TAS	In buffer area only
Pearshape Lagoon 4	TAS	In buffer area only
Princetown Wetlands	VIC	In buffer area only

EPBC Act Referrals

[Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In buffer area only
Not controlled action				
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed	In buffer area only
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed	In buffer area only
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed	In buffer area only
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In buffer area only
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed	In buffer area only

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur	In buffer area only
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur	In buffer area only
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In buffer area only
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur	In buffer area only
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur	In buffer area only
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
[Carcharodon carcharias](#) White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Connecting habitat	Known to occur	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Migration and resting on migration	Known to occur	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

[Summary](#)
[Details](#)
[Matters of NES](#)
[Other Matters Protected by the EPBC Act](#)
[Extra Information](#)
[Caveat](#)
[Acknowledgements](#)



Figure: Permit VIC/P79 South 50 km Flaring EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	1
National Heritage Places:	3
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	8
Listed Threatened Species:	99
Listed Migratory Species:	66

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	19
Commonwealth Heritage Places:	None
Listed Marine Species:	108
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	48
Regional Forest Agreements:	1
Nationally Important Wetlands:	4
EPBC Act Referrals:	92
Key Ecological Features (Marine):	2
Biologically Important Areas:	24
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties [Resource Information]

Name	State	Legal Status	Buffer Status
Budj Bim Cultural Landscape	VIC	Declared property	In buffer area only

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Historic			
Great Ocean Road and Scenic Environs	VIC	Listed place	In buffer area only
Indigenous			
Budj Bim National Heritage Landscape - Mt Eccles Lake Condah Area	VIC	Listed place	In buffer area only
Budj Bim National Heritage Landscape - Tyrendarra Area	VIC	Listed place	In buffer area only

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area	In buffer area only
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area	In buffer area only
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area	In buffer area only
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community may occur within area	In buffer area only

Community Name	Threatened Category	Presence Text	Buffer Status
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In buffer area only
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area	In buffer area only
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area	In buffer area only
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In buffer area only
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area	In feature area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini			
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thinornis cucullatus cucullatus			
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
CRUSTACEAN			
Euastacus bispinosus			
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat known to occur within area	In buffer area only
FISH			
Galaxiella pusilla			
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Hoplostethus atlanticus			
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Nannoperca obscura			
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Prototroctes maraena			
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Seriolella brama Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
FROG			
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
INSECT			
Synemon plana Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area	In buffer area only
MAMMAL			
Antechinus minimus maritimus Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Isoodon obesulus obesulus](#)			
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Mastacomys fuscus mordicus](#)			
Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Miniopterus orianae bassanii](#)			
Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area	In buffer area only
[Neophoca cinerea](#)			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In feature area
[Petaurus australis australis](#)			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Potorous tridactylus trisulcatus](#)			
Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Pseudomys novaehollandiae](#)			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Pseudomys shortridgei](#)			
Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Pteropus poliocephalus](#)			
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In buffer area only
PLANT			
[Amphibromus fluitans](#)			
River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Caladenia hastata](#)			
Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area	In buffer area only
Dipodium campanulatum Bell Flower Hyacinth Orchid [55051]	Endangered	Species or species habitat may occur within area	In buffer area only
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area	In buffer area only
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area	In buffer area only
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat known to occur within area	In buffer area only
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area	In buffer area only
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Delma impar			
Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Lissolepis coventryi			
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area	In buffer area only
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Ardenna tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche carteri			
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma			
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini			
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis			
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis			
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera musculus			
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In buffer area only
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Breeding known to occur within area	In buffer area only
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area	In buffer area only
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area	In buffer area only
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area	In buffer area only
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area	In buffer area only
[Charadrius bicinctus](#) Double-banded Plover [895]		Roosting known to occur within area	In buffer area only
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In buffer area only
[Gallinago megala](#) Swinhoe's Snipe [864]		Roosting likely to occur within area	In buffer area only
[Gallinago stenura](#) Pin-tailed Snipe [841]		Roosting likely to occur within area	In buffer area only
[Limosa lapponica](#) Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
[Numenius minutus](#) Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area	In buffer area only
[Numenius phaeopus](#) Whimbrel [849]		Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In buffer area only
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area	In buffer area only
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area	In buffer area only
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In buffer area only
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC	In buffer area only

Commonwealth Land Name	State	Buffer Status
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC	In buffer area only
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC	In buffer area only
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area	In buffer area only
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Breeding likely to occur within area overfly marine area	In buffer area only
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area	In feature area
Calidris alba Sanderling [875]		Roosting known to occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area	In buffer area only
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area	In buffer area only
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area	In buffer area only
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In buffer area only
Morus capensis Cape Gannet [59569]		Breeding known to occur within area	In buffer area only
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area	In buffer area only
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In buffer area only
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area	In buffer area only
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area	In buffer area only
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area	In buffer area only
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area	In buffer area only
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area	In buffer area only
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Sternula albifrons as Sterna albifrons](#) Little Tern [82849]		Breeding known to occur within area	In buffer area only
[Thalassarche bulleri](#) Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche bulleri platei as Thalassarche sp. nov.](#) Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche chrysostoma](#) Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalasseus bergii as Sterna bergii](#) Greater Crested Tern [83000]		Breeding known to occur within area	In buffer area only
[Thinornis cucullatus as Thinornis rubricollis](#) Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa brevipes as Heteroscelus brevipes](#) Grey-tailed Tattler [851]		Roosting known to occur within area overfly marine area	In buffer area only
[Tringa glareola](#) Wood Sandpiper [829]		Roosting known to occur within area overfly marine area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area	In buffer area only
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area	In feature area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area	In feature area
Reptile			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area	In feature area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat likely to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In feature area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Bay of Islands Coastal Park	Conservation Park	VIC	In buffer area only
Bolwarra H43 B.R.	Natural Features Reserve	VIC	In buffer area only
Bolwarra H44 B.R.	Natural Features Reserve	VIC	In buffer area only
Bolwarra H45 B.R.	Natural Features Reserve	VIC	In buffer area only
Broadwater I90 B.R.	Natural Features Reserve	VIC	In buffer area only
Broadwater I91 B.R.	Natural Features Reserve	VIC	In buffer area only
Brucknell Creek F.F.R	Nature Conservation Reserve	VIC	In buffer area only
Budj Bim	National Park	VIC	In buffer area only
Cape Nelson	State Park	VIC	In buffer area only
Curdie Vale N.C.R.	Natural Features Reserve	VIC	In buffer area only
Deen Maar	Indigenous Protected Area	VIC	In buffer area only
Discovery Bay Coastal Park	Conservation Park	VIC	In buffer area only
Ecklin South Swamp N.C.R.	Natural Features Reserve	VIC	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Fitzroy River SS.R.	Natural Features Reserve	VIC	In buffer area only
Framlingham Forest	Indigenous Protected Area	VIC	In buffer area only
Goose Lagoon W.R	Natural Features Reserve	VIC	In buffer area only
Gorae B.R.	Natural Features Reserve	VIC	In buffer area only
Hopkins Falls S.R.	Natural Features Reserve	VIC	In buffer area only
Hopkins River, Framlingham SS.R.	Natural Features Reserve	VIC	In buffer area only
Kurtonitj	Indigenous Protected Area	VIC	In buffer area only
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC	In buffer area only
Lake Aringa W.R	Nature Conservation Reserve	VIC	In buffer area only
Lake Condah	Indigenous Protected Area	VIC	In buffer area only
Lake Gillear W.R	Natural Features Reserve	VIC	In buffer area only
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC	In buffer area only
Merri	Marine Sanctuary	VIC	In buffer area only
Narrawong F.R.	Nature Conservation Reserve	VIC	In buffer area only
Nine Mile F.F.R.	Nature Conservation Reserve	VIC	In buffer area only
Nullawarre F.R.	Nature Conservation Reserve	VIC	In buffer area only
Port Campbell	National Park	VIC	In buffer area only
Portland H46 B.R.	Natural Features Reserve	VIC	In buffer area only
Portland H47 B.R.	Natural Features Reserve	VIC	In buffer area only
Pretty Hill F.R	Nature Conservation Reserve	VIC	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
St Helens F.R	Nature Conservation Reserve	VIC	In buffer area only
The Arches	Marine Sanctuary	VIC	In buffer area only
The Stones	Reference Area	VIC	In buffer area only
The Stones W.R.	Nature Conservation Reserve	VIC	In buffer area only
Timboon I1 B.R	Natural Features Reserve	VIC	In buffer area only
Tower Hill W.R	Natural Features Reserve	VIC	In buffer area only
Trewalla H48 B.R.	Natural Features Reserve	VIC	In buffer area only
Twelve Apostles	Marine National Park	VIC	In buffer area only
Tyrendarra	Indigenous Protected Area	VIC	In buffer area only
Tyrendarra F.R	Nature Conservation Reserve	VIC	In buffer area only
Unnamed P0059	Private Nature Reserve	VIC	In buffer area only
Unnamed P0126	Private Nature Reserve	VIC	In buffer area only
Woolsthorpe N.C.R.	Natural Features Reserve	VIC	In buffer area only
Yambuk F.F.R.	Nature Conservation Reserve	VIC	In buffer area only
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC	In buffer area only

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
West Victoria RFA	Victoria	In buffer area only

Nationally Important Wetlands [Resource Information]

Wetland Name	State	Buffer Status
Cobden-Terang Volcanic Craters	VIC	In buffer area only
Lower Merri River Wetlands	VIC	In buffer area only

Wetland Name	State	Buffer Status
Tower Hill	VIC	In buffer area only
Yambuk Wetlands	VIC	In buffer area only

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Hexham Wind Farm	2022/09287		Assessment	In buffer area only
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In buffer area only
Southern Winds Offshore Wind Project	2022/09435		Assessment	In buffer area only
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed	In buffer area only
Spinifex Offshore Surveys	2022/09359		Completed	In feature area
Controlled action				
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval	In feature area
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval	In buffer area only
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval	In buffer area only
Penshurst Wind Energy Facility	2011/5991	Controlled Action	Completed	In buffer area only
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed	In buffer area only
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed	In buffer area only
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In feature area
Willatook Wind Farm, Vic	2019/8439	Controlled Action	Assessment Approach	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed	In buffer area only
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed	In feature area
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed	In buffer area only
Development of wind energy facility	2005/2224	Not Controlled Action	Completed	In buffer area only
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed	In buffer area only
Ellerslie Timber Bridge Partial Restoration	2009/4734	Not Controlled Action	Completed	In buffer area only
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed	In buffer area only
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed	In buffer area only
Gas Field Development	2006/2635	Not Controlled Action	Completed	In buffer area only
Gas Fields Development	2011/5879	Not Controlled Action	Completed	In buffer area only
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed	In buffer area only
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed	In buffer area only
Hawkesdale Wind Farm	2005/2140	Not Controlled Action	Completed	In buffer area only
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed	In buffer area only
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed	In buffer area only
Newfield wind farm	2007/3226	Not Controlled Action	Completed	In buffer area only
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed	In buffer area only
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed	In buffer area only
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed	In buffer area only
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed	In buffer area only
Pulp mill and associated infrastructure 3km north of Heywood	2005/2125	Not Controlled Action	Completed	In buffer area only
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed	In buffer area only
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed	In buffer area only
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed	In buffer area only
Ryan Corner Wind Farm	2006/2937	Not Controlled Action	Completed	In buffer area only
Shaw River Power Station Project	2009/5088	Not Controlled Action	Completed	In buffer area only
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed	In buffer area only
Tarrone Power Station Project	2010/5299	Not Controlled Action	Completed	In buffer area only
The Sisters Wind Farm	2008/4268	Not Controlled Action	Completed	In buffer area only
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed	In buffer area only
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed	In feature area
Victorian Generator Project	2005/1984	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed	In buffer area only
Wind farm development	2005/1960	Not Controlled Action	Completed	In buffer area only
Wind Farm Development	2004/1929	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Gas Pipeline Crossing at Mount Emu Creek	2009/4913	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Referral decision				
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed	In buffer area only
Portland Wave Energy Project	2008/3946	Referral Decision	Completed	In buffer area only
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In feature area

Key Ecological Features

[Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
Bonney Coast Upwelling	South-east	In buffer area only
West Tasmania Canyons	South-east	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In buffer area only
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur	In buffer area only
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In feature area

Scientific Name	Behaviour	Presence	Buffer Status
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur	In buffer area only
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
Eubalaena australis Southern Right Whale [40]	Aggregation	Known to occur	In feature area
Eubalaena australis Southern Right Whale [40]	Known core range	Known to occur	In feature area
Eubalaena australis Southern Right Whale [40]	Migration and resting on migration	Known to occur	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 07-Aug-2023

[Summary](#)
[Details](#)
[Matters of NES](#)
[Other Matters Protected by the EPBC Act](#)
[Extra Information](#)
[Caveat](#)
[Acknowledgements](#)

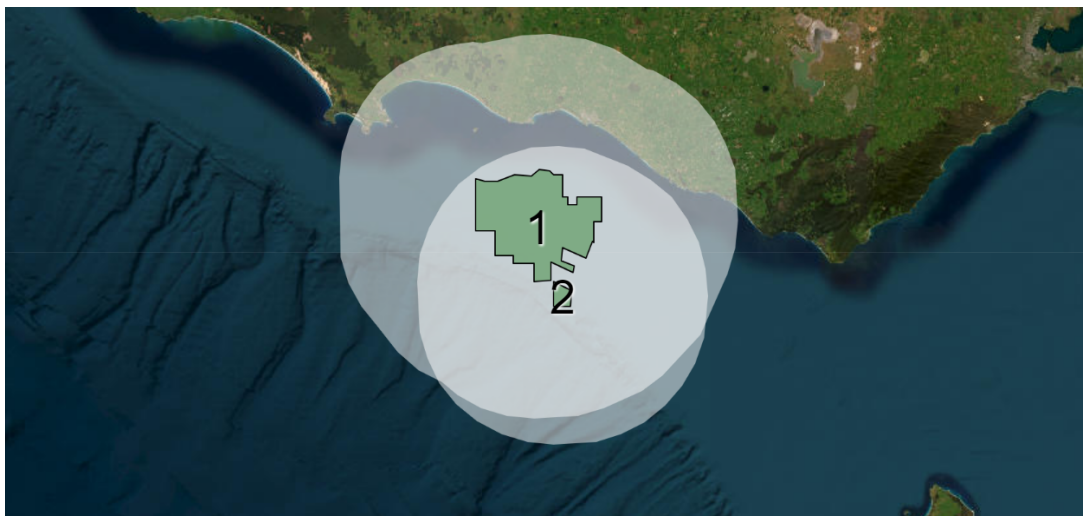


Figure: Permit VIC/P79 North 50 km Flaring EMBA

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	88
Listed Migratory Species:	58

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	6
Commonwealth Heritage Places:	1
Listed Marine Species:	94
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	4
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	41
Regional Forest Agreements:	2
Nationally Important Wetlands:	9
EPBC Act Referrals:	38
Key Ecological Features (Marine):	1
Biologically Important Areas:	29
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Historic			
Great Ocean Road and Scenic Environs	VIC	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity	Buffer Status
Lavinia	Within Ramsar site	In buffer area only

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
EEZ and Territorial Sea	In feature area

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area	In buffer area only
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area	In buffer area only
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within area	In buffer area only
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area	In buffer area only
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community may occur within area	In buffer area only

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi			
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area	In buffer area only
Acanthornis magna greeniana			
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Aquila audax fleayi			
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat may occur within area	In buffer area only
Botaurus poiciloptilus			
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calidris canutus			
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Callocephalon fimbriatum			
Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Ceyx azureus diemenensis			
Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat known to occur within area	In buffer area only
Charadrius leschenaultii			
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area	In feature area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area	In feature area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Thinornis cucullatus cucullatus](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
FISH			
[Galaxiella pusilla](#) Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Hoplostethus atlanticus](#) Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
[Nannoperca obscura](#) Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Rexea solandri (eastern Australian population)](#) Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
FROG			
[Litoria raniformis](#) Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
[Antechinus minimus maritimus](#) Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Dasyurus maculatus maculatus (SE mainland population)](#) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isoodon obesulus obesulus](#) Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Mastacomys fuscus mordicus](#) Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Roosting known to occur within area	In buffer area only
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area	In buffer area only
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area	In buffer area only
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In buffer area only
PLANT			
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area	In buffer area only
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat may occur within area	In buffer area only
REPTILE			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Lissolepis coventryi			
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat likely to occur within area	In buffer area only
SHARK			
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Centrophorus uyato listed as Centrophorus zeehaani			
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In buffer area only
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Diomedea antipodensis			
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Eubalaena australis as Balaena glacialis australis](#) Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
[Isurus oxyrinchus](#) Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In feature area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In feature area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In buffer area only
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area	In buffer area only
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area	In buffer area only
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Arenaria interpres](#) Ruddy Turnstone [872]		Species or species habitat known to occur within area	In buffer area only
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
[Calidris alba](#) Sanderling [875]		Species or species habitat known to occur within area	In buffer area only
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Tringa nebularia](#)			
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In buffer area only
[Tringa stagnatilis](#)			
Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [60114]	TAS	In buffer area only
Commonwealth Land - [21583]	VIC	In buffer area only
Commonwealth Land - [21492]	VIC	In buffer area only
Commonwealth Land - [60111]	TAS	In buffer area only
Commonwealth Land - [60112]	TAS	In buffer area only
Commonwealth Land - [60113]	TAS	In buffer area only

Commonwealth Heritage Places [Resource Information]

Name	State	Status	Buffer Status
Historic			
[Cape Wickham Lighthouse](#)	TAS	Listed place	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
[Actitis hypoleucos](#)			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Apus pacificus](#)			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In buffer area only
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area	In buffer area only
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area	In buffer area only
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area	In buffer area only
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In buffer area only
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In buffer area only
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In buffer area only
Stercorarius antarcticus as Catharacta skua			
Brown Skua [85039]		Species or species habitat may occur within area	In feature area
Sterna striata			
White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area	In feature area
Sternula albifrons as Sterna albifrons			
Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri			
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche bulleri platei as Thalassarche sp. nov.			
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche carteri			
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche chrysostoma			
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche salvini](#) Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
[Thinornis cucullatus as Thinornis rubricollis](#) Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In buffer area only
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Fish			
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In feature area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area	In feature area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area	In feature area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area	In feature area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In feature area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area	In feature area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area	In feature area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area	In feature area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area	In feature area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In feature area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In feature area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In feature area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area	In feature area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area	In feature area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area	In feature area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In feature area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In feature area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In feature area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area	In feature area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area	In feature area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In feature area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In feature area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In feature area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In feature area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In feature area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In feature area
Mammal			
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In feature area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area	In feature area
Reptile			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area	In feature area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area	In feature area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area	In feature area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area	In feature area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area	In feature area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In feature area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area	In feature area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area	In feature area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area	In feature area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In feature area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area	In feature area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area	In feature area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area	In buffer area only
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area	In feature area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area	In feature area

Current Scientific Name	Status	Type of Presence	Buffer Status
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area	In feature area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area	In feature area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area	In feature area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area	In feature area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In feature area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area	In feature area

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories	Buffer Status
Apollo	Multiple Use Zone (IUCN VI)	In feature area
Franklin	Multiple Use Zone (IUCN VI)	In buffer area only
Zeehan	Multiple Use Zone (IUCN VI)	In feature area
Zeehan	Special Purpose Zone (IUCN VI)	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Aire River	Heritage River	VIC	In buffer area only
Aire River W.R.	Natural Features Reserve	VIC	In buffer area only
Badger Box Creek	Nature Reserve	TAS	In buffer area only
Cape Wickham	Conservation Area	TAS	In buffer area only
Cape Wickham	State Reserve	TAS	In buffer area only
Cataraqui Point	Conservation Area	TAS	In buffer area only
Christmas Island	Nature Reserve	TAS	In buffer area only
Colliers Forest Reserve	Conservation Covenant	TAS	In buffer area only
Colliers Swamp	Conservation Area	TAS	In buffer area only
Currie Lightkeepers Residence	Historic Site	TAS	In buffer area only
Deep Lagoons	Conservation Area	TAS	In buffer area only
Disappointment Bay	State Reserve	TAS	In buffer area only
Gentle Annie	Conservation Area	TAS	In buffer area only
Great Otway	National Park	VIC	In buffer area only
Johanna Falls S.R.	Natural Features Reserve	VIC	In buffer area only
Kentford Forest	Conservation Area	TAS	In buffer area only
Kentford Forest	Nature Reserve	TAS	In buffer area only
Kentford Rd Nugara	Conservation Covenant	TAS	In buffer area only
Latrobe B.R.	Natural Features Reserve	VIC	In buffer area only
Lavinia	State Reserve	TAS	In buffer area only
Lily Lagoon	Nature Reserve	TAS	In buffer area only
Lymwood	Conservation Covenant	TAS	In buffer area only
Muddy Lagoon	Nature Reserve	TAS	In buffer area only
New Year Island	Game Reserve	TAS	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Parker River	Reference Area	VIC	In buffer area only
Porky Beach	Conservation Area	TAS	In buffer area only
Port Campbell	National Park	VIC	In buffer area only
Red Hut Point	Conservation Area	TAS	In buffer area only
Red Hut Road #1	Conservation Covenant	TAS	In buffer area only
Red Hut Road #2	Conservation Covenant	TAS	In buffer area only
Sartoris Rd Nugara	Conservation Covenant	TAS	In buffer area only
Seal Rocks	Conservation Area	TAS	In buffer area only
Seal Rocks	State Reserve	TAS	In buffer area only
South Rd Nugara	Conservation Covenant	TAS	In buffer area only
Stokes Point	Conservation Area	TAS	In buffer area only
Stony Creek (Otways)	Reference Area	VIC	In buffer area only
Tambar	Conservation Covenant	TAS	In buffer area only
Tathams Lagoon	Conservation Area	TAS	In buffer area only
Tin Mine Rd Loorana	Conservation Covenant	TAS	In buffer area only
Twelve Apostles	Marine National Park	VIC	In buffer area only
Wicks Road Nugara	Conservation Covenant	TAS	In buffer area only

Regional Forest Agreements

[Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
Tasmania RFA	Tasmania	In buffer area only
West Victoria RFA	Victoria	In buffer area only

Nationally Important Wetlands

[Resource Information]

Wetland Name	State	Buffer Status
Aire River	VIC	In buffer area only
Bungaree Lagoon	TAS	In buffer area only
Lake Flannigan	TAS	In buffer area only

Wetland Name	State	Buffer Status
Lower Aire River Wetlands	VIC	In buffer area only
Pearshape Lagoon 1	TAS	In buffer area only
Pearshape Lagoon 2	TAS	In buffer area only
Pearshape Lagoon 3	TAS	In buffer area only
Pearshape Lagoon 4	TAS	In buffer area only
Princetown Wetlands	VIC	In buffer area only

EPBC Act Referrals

[Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed	In feature area
Controlled action				
Otway Development	2002/621	Controlled Action	Post-Approval	In feature area
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed	In buffer area only
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed	In buffer area only
Not controlled action				
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed	In buffer area only
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed	In buffer area only
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In buffer area only
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed	In buffer area only
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		Manner)		
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed	In buffer area only
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed	In buffer area only

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
West Tasmania Canyons	South-east	In feature area

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In feature area
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur	In buffer area only
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur	In feature area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur	In feature area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur	In feature area
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur	In buffer area only
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur	In buffer area only
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur	In feature area
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur	In feature area
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur	In buffer area only
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur	In buffer area only
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur	In feature area
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur	In feature area
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur	In feature area
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur	In feature area
Sharks			
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur	In feature area
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur	In feature area
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
[Carcharodon carcharias](#) White Shark [64470]	Known distribution	Known to occur	In feature area
Whales			
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Distribution	Known to occur	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging	Likely to be present	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur	In feature area
[Balaenoptera musculus brevicauda](#) Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Connecting habitat	Known to occur	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Known core range	Known to occur	In feature area
[Eubalaena australis](#) Southern Right Whale [40]	Migration and resting on migration	Known to occur	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements



Figure: Permit T/49P MDO (moderate threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	85
Listed Migratory Species:	59

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	7
Commonwealth Heritage Places:	1
Listed Marine Species:	98
Whales and Other Cetaceans:	29
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	5
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	37
Regional Forest Agreements:	2
Nationally Important Wetlands:	8
EPBC Act Referrals:	50
Key Ecological Features (Marine):	1
Biologically Important Areas:	29
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity
Lavinia	Within Ramsar site

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat may occur within area
Aquila audax fleayi		
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Callocephalon fimbriatum		
Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Ceyx azureus diemenensis		
Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
FISH		
Galaxiella pusilla Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat may occur within area
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat may occur within area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population) Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		

Scientific Name	Threatened Category	Presence Text
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat likely to occur within area
MAMMAL		
Antechinus minimus maritimus		
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Dasyurus maculatus maculatus (SE mainland population)		
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus		
Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii		
Southern Bent-wing Bat [87645]	Critically Endangered	Roosting known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus		
Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus		
Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
Pseudomys novaehollandiae		
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
PLANT		
Amphibromus fluitans		
River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat may occur within area
Astelia australiana		
Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
Hiya distans listed as Hypolepis distans		
Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Lepidium hyssopifolium		
Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area
Prasophyllum spicatum		
Dense Leek-orchid [55146]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis chlorogramma		
Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Pterostylis cucullata](#)		
Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
[Pterostylis tenuissima](#)		
Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat may occur within area
[Pterostylis ziegeleri](#)		
Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area
[Senecio psilocarpus](#)		
Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area
REPTILE		
[Caretta caretta](#)		
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
[Chelonia mydas](#)		
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
[Dermochelys coriacea](#)		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Lissolepis coventryi](#)		
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
SHARK		
[Carcharodon carcharias](#)		
White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Centrophorus uyato listed as Centrophorus zeehaani](#)		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Galeorhinus galeus School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis as Balaena glacialis australis		
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Isurus oxyrinchus		
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area
[Arenaria interpres](#) Ruddy Turnstone [872]		Species or species habitat known to occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
[Calidris alba](#) Sanderling [875]		Species or species habitat known to occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area
[Calidris ruficollis](#) Red-necked Stint [860]		Species or species habitat known to occur within area
[Charadrius bicinctus](#) Double-banded Plover [895]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Unknown	

Commonwealth Land Name	State
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60111]	TAS
Commonwealth Land - [60112]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21583]	VIC

Commonwealth Heritage Places

[Resource Information]

Name	State	Status
Historic		
Cape Wickham Lighthouse	TAS	Listed place

Listed Marine Species

[Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Rostratula australis as Rostratula benghalensis (sensu lato)		
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua		
Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata		
White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons		
Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area overfly marine area
Fish		
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis		
Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps		
Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding likely to occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats	[Resource Information]
Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Badger Box Creek	Nature Reserve	TAS
Barham Paradise S.R.	Natural Features Reserve	VIC
Black Pyramid Rock	Nature Reserve	TAS
Cape Wickham	State Reserve	TAS
Cape Wickham	Conservation Area	TAS
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
City of Melbourne Bay	Conservation Area	TAS
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Currie Lightkeepers Residence	Historic Site	TAS
Disappointment Bay	State Reserve	TAS
Gentle Annie	Conservation Area	TAS
Great Otway	National Park	VIC
Lavinia	State Reserve	TAS
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Muddy Lagoon	Nature Reserve	TAS
New Year Island	Game Reserve	TAS
Parker River	Reference Area	VIC
Porky Beach	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Seal Rocks	State Reserve	TAS
Seal Rocks	Conservation Area	TAS
South Rd Nugara	Conservation Covenant	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Unnamed P0176	Private Nature Reserve	VIC
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Bungaree Lagoon	TAS
Lake Flannigan	TAS
Lower Aire River Wetlands	VIC
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS

Wetland Name	State
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Controlled action			
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Not controlled action			
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur

Scientific Name	Behaviour	Presence
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		

Scientific Name	Behaviour	Presence
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit VIC/P79 South MDO (moderate threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	87
Listed Migratory Species:	55

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	92
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	10
Regional Forest Agreements:	2
Nationally Important Wetlands:	2
EPBC Act Referrals:	58
Key Ecological Features (Marine):	2
Biologically Important Areas:	26
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community may occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat may occur within area
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat may occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
[Thinornis cucullatus cucullatus](#) Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
FISH		
[Galaxiella pusilla](#) Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat likely to occur within area
[Hoplostethus atlanticus](#) Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
[Nannoperca obscura](#) Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat may occur within area
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
[Seriolella brama](#) Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
[Thunnus maccoyii](#) Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		
[Litoria raniformis](#) Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
MAMMAL		
[Antechinus minimus maritimus](#) Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Roosting known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
PLANT		
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat may occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat may occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat likely to occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
SHARK		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Eubalaena australis as Balaena glacialis australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus		
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area

Scientific Name	Threatened Category	Presence Text
[Limosa lapponica](#) Bar-tailed Godwit [844]		Species or species habitat known to occur within area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
[Numenius minutus](#) Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
[Pandion haliaetus](#) Osprey [952]		Species or species habitat known to occur within area
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Unknown	
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21583]	VIC

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route likely to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Stercorarius antarcticus as Catharacta skua		
Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata		
White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons		
Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area
Fish		
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Vanacampus phillipi](#) Port Phillip Pipefish [66284]		Species or species habitat may occur within area
[Vanacampus poecilolaemus](#) Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat likely to occur within area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
[Balaenoptera acutorostrata](#) Minke Whale [33]		Species or species habitat may occur within area
[Balaenoptera bonaerensis](#) Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
[Balaenoptera borealis](#) Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Christmas Island	Nature Reserve	TAS
Great Otway	National Park	VIC
New Year Island	Game Reserve	TAS
Parker River	Reference Area	VIC
Porky Beach	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Port Campbell	National Park	VIC
The Arches	Marine Sanctuary	VIC
Twelve Apostles	Marine National Park	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Lower Aire River Wetlands	VIC

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Not controlled action			
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Bonney Coast Upwelling	South-east
West Tasmania Canyons	South-east

Biologically Important Areas		
Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur

Scientific Name	Behaviour	Presence
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit VIC/P79 North MDO (moderate threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	8
Listed Threatened Species:	96
Listed Migratory Species:	66

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	3
Commonwealth Heritage Places:	None
Listed Marine Species:	111
Whales and Other Cetaceans:	29
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	1
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	23
Regional Forest Agreements:	1
Nationally Important Wetlands:	4
EPBC Act Referrals:	88
Key Ecological Features (Marine):	2
Biologically Important Areas:	24
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity
Glenelg estuary and discovery bay wetlands	Within Ramsar site

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community may occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community may occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community may occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate	Critically Endangered	Community likely to occur within area

Community Name	Threatened Category	Presence Text
Lowland Plains		
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat may occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
CRUSTACEAN		
Euastacus bispinosus Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area
FISH		
Galaxiella pusilla Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat likely to occur within area
Hoplostethus atlanticus Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Seriolella brama Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
MAMMAL		
Antechinus minimus maritimus Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
Pseudomys shortridgei Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
PLANT		
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat likely to occur within area
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia colorata Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat likely to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
SHARK		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Eubalaena australis as Balaena glacialis australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus		
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area
[Charadrius bicinctus](#) Double-banded Plover [895]		Roosting known to occur within area
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Unknown	
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21583]	VIC

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Sternula albifrons as Sterna albifrons		
Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalasseus bergii as Sterna bergii Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Fish		
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Vanacampus margaritifer		
Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi		
Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus		
Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri		
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus		
Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata		
Minke Whale [33]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
[Megaptera novaeangliae](#) Humpback Whale [38]		Species or species habitat known to occur within area
[Mesoplodon bowdoini](#) Andrew's Beaked Whale [73]		Species or species habitat may occur within area
[Mesoplodon densirostris](#) Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
[Mesoplodon grayi](#) Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
[Mesoplodon hectori](#) Hector's Beaked Whale [76]		Species or species habitat may occur within area
[Mesoplodon layardii](#) Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
[Mesoplodon mirus](#) True's Beaked Whale [54]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Goose Lagoon W.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Great Otway	National Park	VIC
Johanna Falls S.R.	Natural Features Reserve	VIC
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Merri	Marine Sanctuary	VIC
Parker River	Reference Area	VIC
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Princetown W.R	Natural Features Reserve	VIC
Stony Creek (Otways)	Reference Area	VIC
The Arches	Marine Sanctuary	VIC
Twelve Apostles	Marine National Park	VIC
Yambuk F.F.R.	Nature Conservation Reserve	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC

Wetland Name	State
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Princetown Wetlands	VIC

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Not controlled action			
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
3D Seismic Survey	2008/4014	Referral Decision	Completed
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wind Farm	2001/139	Referral Decision	Completed

Key Ecological Features

[Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Bonney Coast Upwelling	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur

Scientific Name	Behaviour	Presence
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		

Scientific Name	Behaviour	Presence
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

Acknowledgements



Figure: Permit T/49P MDO (low threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	1
National Heritage Places:	5
Wetlands of International Importance (Ramsar	5
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	14
Listed Threatened Species:	164
Listed Migratory Species:	81

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	72
Commonwealth Heritage Places:	8
Listed Marine Species:	132
Whales and Other Cetaceans:	32
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	8
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	203
Regional Forest Agreements:	4
Nationally Important Wetlands:	23
EPBC Act Referrals:	264
Key Ecological Features (Marine):	4
Biologically Important Areas:	41
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Legal Status
Tasmanian Wilderness	TAS	Declared property

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place
Natural		
Tasmanian Wilderness	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within 10km of Ramsar site
Lavinia	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Alpine Sphagnum Bogs and Associated Fens	Endangered	Community may occur within area
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community may occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area
Aquila audax fleayi		
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum		
Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Breeding known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat likely to occur within area
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area
FISH		
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
Thymichthys politus		
Red Handfish [83756]	Critically Endangered	Species or species habitat may occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat may occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat likely to occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Litoria watsoni		
Watson's Tree Frog [91509]	Endangered	Species or species habitat may occur within area
INSECT		
Oreisplanus munionga larana		
Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Antechinus minimus maritimus		
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (Tasmanian population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Perameles gunnii Victorian subspecies		
Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Potorous longipes		
Long-footed Potoroo [217]	Endangered	Species or species habitat may occur within area
Potorous tridactylus trisulcatus		
Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus		
Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
Pseudomys novaehollandiae		
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
Pseudomys shortridgei		
Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Sarcophilus harrisii		
Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
OTHER		
Megascolides australis		
Giant Gippsland Earthworm [64420]	Vulnerable	Species or species habitat may occur within area
PLANT		

Scientific Name	Threatened Category	Presence Text
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
Caladenia dienema Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat likely to occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat may occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Centrolepis pedderensis Pedder Centrolepis, Pedder Bristlewort [12647]	Endangered	Species or species habitat likely to occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat known to occur within area
Craspedia preminghana Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat likely to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat may occur within area
Diuris lanceolata Snake Orchid [10231]	Endangered	Species or species habitat known to occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum atratum Three Hummock Leek-orchid [82677]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat may occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Pseudocephalozia paludicola Alpine Leafy Liverwort [66441]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis rubenachii Arthur River Greenhood [64536]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Pterostylis tenuissima](#) Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
[Pterostylis ziegeleri](#) Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
[Rutidosis leptorhynchoides](#) Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
[Senecio macrocarpus](#) Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
[Senecio psilocarpus](#) Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
[Thelymitra epipactoides](#) Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
[Thelymitra matthewsii](#) Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
[Xerochrysum palustre](#) Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
REPTILE		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
[Delma impar](#) Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Lissolepis coventryi		
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Tympanocryptis pinguicolla		
Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		
Carcharias taurus (east coast population)		
Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat likely to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Zearaja maugeana		
Maugean Skate, Port Davey Skate [83504]	Endangered	Species or species habitat known to occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
[Anous stolidus](#) Common Noddy [825]		Species or species habitat likely to occur within area
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area
[Ardenna carneipes](#) Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
[Ardenna grisea](#) Sooty Shearwater [82651]		Breeding known to occur within area
[Ardenna tenuirostris](#) Short-tailed Shearwater [82652]		Breeding known to occur within area
[Diomedea antipodensis](#) Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Diomedea epomophora](#) Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Diomedea exulans](#) Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
[Diomedea sanfordi](#) Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
[Hydroprogne caspia](#) Caspian Tern [808]		Breeding known to occur within area
[Macronectes giganteus](#) Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Rhincodon typus](#) Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat known to occur within area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat known to occur within area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Breeding known to occur within area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - HMAS CERBERUS [20097]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC

Commonwealth Land Name	State
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Unknown	
Commonwealth Land - [21497]	VIC
Commonwealth Land - [60116]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60112]	TAS
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21491]	VIC
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [60113]	TAS
Commonwealth Land - [22391]	VIC
Commonwealth Land - [60114]	TAS
Commonwealth Land - [21570]	VIC
Commonwealth Land - [60111]	TAS
Commonwealth Land - [21498]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [21488]	VIC

Commonwealth Land Name	State
Commonwealth Land - [21582]	VIC
Commonwealth Land - [60346]	TAS

Commonwealth Heritage Places [Resource Information]

Name	State	Status
Historic		
Cape Sorell Lighthouse	TAS	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Chalcites osculans as Chrysococcyx osculans		
Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus		
Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus		
Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae		
Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni		
Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Stiltia isabella Australian Pratincole [818]		Roosting known to occur within area overfly marine area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii		
Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes		
Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola		
Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
[Xenus cinereus](#) Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
[Hippocampus minotaur](#) Bullneck Seahorse [66705]		Species or species habitat may occur within area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
[Hypselognathus rostratus](#) Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
[Kaupus costatus](#) Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		

Scientific Name	Threatened Category	Presence Text
Arctocephalus forsteri		
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
Arctocephalus pusillus		
Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area

Whales and Other Cetaceans

[Resource Information]

Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata		
Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Current Scientific Name	Status	Type of Presence
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat may occur within area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats	[Resource Information]
Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Tasman Fracture	Marine National Park Zone (IUCN II)
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)

Park Name	Zone & IUCN Categories
Tasman Fracture	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Arthur River Rd Marrawah	Conservation Covenant	TAS
Arthurs Seat	State Park	VIC
Badger Box Creek	Nature Reserve	TAS
Badger River	Regional Reserve	TAS
Bald Hills B.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass Pyramid	Nature Reserve	TAS
Bass River SS.R.	Natural Features Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC

Protected Area Name	Reserve Type	State
Bellarine I109 B.R.	Natural Features Reserve	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Bird Island	Game Reserve	TAS
Black Pyramid Rock	Nature Reserve	TAS
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Calder River	Reference Area	VIC
Calm Bay	State Reserve	TAS
Cape Howe	Marine National Park	VIC
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Sorell	Historic Site	TAS
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corinella Cemetery B.R.	Natural Features Reserve	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Croajingolong	National Park	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Deep Lagoons	Conservation Area	TAS
Devils Tower	Nature Reserve	TAS
Disappointment Bay	State Reserve	TAS
Discovery Bay Coastal Park	Conservation Park	VIC
Dromana B.R.	Natural Features Reserve	VIC
Eagle Rock	Marine Sanctuary	VIC
East Moncoeur Island	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Fingal B.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Four Mile Beach	Regional Reserve	TAS
French Island	National Park	VIC
Gentle Annie	Conservation Area	TAS
Gorae B.R.	Natural Features Reserve	VIC
Grantville N.C.R	Natural Features Reserve	VIC
Great Otway	National Park	VIC
Harbour Islets	Conservation Area	TAS
Henderson Islets	Conservation Area	TAS
Hogan Group	Conservation Area	TAS
Hunter Island	Conservation Area	TAS
Johanna Falls S.R.	Natural Features Reserve	VIC
Kentford Forest	Conservation Area	TAS
Kentford Forest	Nature Reserve	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Kings Run	Private Nature Reserve	TAS
Kings Run #2	Conservation Covenant	TAS
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Little Trefoil	Conservation Area	TAS
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lymwood	Conservation Covenant	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Merri	Marine Sanctuary	VIC
Millwood Road	Conservation Covenant	TAS
Mornington Peninsula	National Park	VIC
Mount Dundas	Regional Reserve	TAS
Mount Heemskirk	Regional Reserve	TAS
Mount Vereker Creek	Natural Catchment Area	VIC
Muddy Lagoon	Nature Reserve	TAS
Murkay Islets	Conservation Area	TAS
Mushroom Reef	Marine Sanctuary	VIC
Nares Rocks	Conservation Area	TAS
Narrawong F.R.	Nature Conservation Reserve	VIC
New Year Island	Game Reserve	TAS
North East Islet	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Ocean Beach	Conservation Area	TAS
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Penguin Islet	Nature Reserve	TAS
Petrel Islands	Game Reserve	TAS
Phillip Island Nature Park	Other	VIC
Pieman River	State Reserve	TAS
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS

Protected Area Name	Reserve Type	State
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rodondo Island	Nature Reserve	TAS
Rosebud B.R.	Natural Features Reserve	VIC
Sartoris Rd Nugara	Conservation Covenant	TAS
Seacrow Islet	Conservation Area	TAS
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	Conservation Area	TAS
Seal Rocks	State Reserve	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Shell Islets	Conservation Area	TAS
Slaves Bay	Conservation Area	TAS
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS
Southwest	National Park	TAS
Southwest	Conservation Area	TAS
Stack Island	Game Reserve	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC

Protected Area Name	Reserve Type	State
Strahan Customs House	Historic Site	TAS
Sugarloaf Rock	Conservation Area	TAS
Sundown Point	State Reserve	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tambar	Conservation Covenant	TAS
Tathams Lagoon	Conservation Area	TAS
Teepookana	Regional Reserve	TAS
The Arches	Marine Sanctuary	VIC
The Doughboys	Nature Reserve	TAS
Three Hummock Island	State Reserve	TAS
Tikkawoppa Plateau	Regional Reserve	TAS
Tin Mine Rd Loorana	Conservation Covenant	TAS
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Trial Harbour	State Reserve	TAS
Tully River	Conservation Area	TAS
Twelve Apostles	Marine National Park	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed C0293	Private Nature Reserve	VIC
Unnamed P0176	Private Nature Reserve	VIC
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Waratah B.R	Natural Features Reserve	VIC
Warra Creek	Regional Reserve	TAS

Protected Area Name	Reserve Type	State
Welcome River	State Reserve	TAS
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Yambacoona	Conservation Covenant	TAS

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
East Gippsland RFA	Victoria
Gippsland RFA	Victoria
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Bungaree Lagoon	TAS
Corner Inlet	VIC
Lake Ashwood	TAS
Lake Bantick	TAS
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lake Garcia	TAS
Lavinia Nature Reserve	TAS
Lower Aire River Wetlands	VIC
Mud Islands	VIC
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Shallow Inlet Marine & Coastal Park	VIC

Wetland Name	State
Swan Bay & Swan Island	VIC
Tamboon Inlet Wetlands	VIC
Thurra River	VIC
Unnamed Wetland	TAS
Western Port	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Basalt Quarry Extension (Mountainview Quarry)	2004/1329	Controlled Action	Completed
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Dairy Farm expansion on the Woolnorth property	2013/6710	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Geelong Salt Fields Urban Renewal Project	2012/6630	Controlled Action	Assessment Approach
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Heemskirk Windfarm Development	2002/678	Controlled Action	Completed
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Estate, 251-319 Melaluka Rd	2007/3308	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Residential Subdivision and Stormwater Enhancements for land west of Ash Road	2012/6544	Controlled Action	Completed
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Tarkine Forest Drive Road Upgrade	2011/6210	Controlled Action	Post-Approval
The Tarkine Road Project	2009/5169	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Aquacullture facility for rainbow trout and yabbies and recreational facilities	2002/822	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Barwon River Parkland Initiative, Taits Point, Stages 1 and 2	2010/5437	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of a Dwelling	2011/6160	Not Controlled Action	Completed
Construction of a flexi mat boat ramp	2011/5838	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Extension of Mountain View basalt quarry by 113 hectares (stage one)	2004/1591	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Sparrovale Wetland stormwater management, Armstrong Creek and Charlemont, VIC	2018/8375	Not Controlled Action	Completed
Spikey Beach 1, West Triton Drilling Program, Bass Basin Permit T/38P	2007/3914	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Tenby Point Sewerage Pipeline	2001/406	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Upgrade of existing access track	2011/5933	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
Wastewater Treatment System Upgrade	2004/1420	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D & 3D seismic survey T/39P	2005/2237	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Aquisition Survey	2008/4041	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Collection of cast bull kelp	2002/813	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
development of retirement village, Bellarine Lakes Golf Course, Bellarine Hwy	2006/3015	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Granville Wind Farm, TAS	2012/6585	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness PT 2	2006/3044	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness WHA	2004/1846	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Marine Farming Expansion, Macquarie Harbour, TAS	2012/6406	Not Controlled Action (Particular Manner)	Post-Approval
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Remove silt build up on existing swales around the perimeter of the Three Hummo	2010/5676	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Upgrade of Arthur River Road	2003/930	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed
Kelly Channel Discharge, Macquarie Harbour, Tasmania	2017/8057	Referral Decision	Completed
Land clearing for stock grazing	2005/2176	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region

Name	Region
Bonney Coast Upwelling	South-east
Seamounts South and east of Tasmania	South-east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Seabirds		
Ardenna grisea Sooty Shearwater [82651]	Foraging	Likely to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Likely to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur

Scientific Name	Behaviour	Presence
Megaptera novaeangliae		
Humpback Whale [38]	Foraging	Known to occur

Bioregional Assessments

SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

[Summary](#)

[Details](#)

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

[Caveat](#)

[Acknowledgements](#)



Figure: Permit VIC/P79 South MDO (low threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	4
Wetlands of International Importance (Ramsar	6
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	13
Listed Threatened Species:	154
Listed Migratory Species:	83

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	49
Commonwealth Heritage Places:	8
Listed Marine Species:	134
Whales and Other Cetaceans:	32
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	6
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	179
Regional Forest Agreements:	4
Nationally Important Wetlands:	22
EPBC Act Referrals:	265
Key Ecological Features (Marine):	4
Biologically Important Areas:	39
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Gippsland lakes	Within 10km of Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities	[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community may occur within area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community may occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Acanthornis magna greeniana King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Species or species habitat may occur within area
CRUSTACEAN		
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area
FISH		
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat likely to occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Litoria watsoni		
Watson's Tree Frog [91509]	Endangered	Species or species habitat may occur within area
INSECT		
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Antechinus minimus maritimus		
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (Tasmanian population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii Victorian subspecies Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Petaurus australis australis](#) Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
[Potorous tridactylus trisulcatus](#) Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
[Pseudomys fumeus](#) Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
[Pseudomys novaehollandiae](#) New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
[Pseudomys shortridgei](#) Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
[Sarcophilus harrisii](#) Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
PLANT		
[Amphibromus fluitans](#) River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
[Astelia australiana](#) Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
[Caladenia calcicola](#) Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
[Caladenia dienema](#) Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat may occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat may occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat may occur within area
Centrolepis pedderensis Pedder Centrolepis, Pedder Bristlewort [12647]	Endangered	Species or species habitat may occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat likely to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat may occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Pomaderris parrisiae Parris' Pomaderris [22119]	Vulnerable	Species or species habitat may occur within area
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat may occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Pseudocephalozia paludicola Alpine Leafy Liverwort [66441]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
REPTILE		

Scientific Name	Threatened Category	Presence Text
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area
Tympanocryptis pinguicolla Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		
Carcharias taurus (east coast population) Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC

Commonwealth Land Name	State
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC

Commonwealth Land Name	State
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Unknown	
Commonwealth Land - [21488]	VIC
Commonwealth Land - [60111]	TAS
Commonwealth Land - [60112]	TAS
Commonwealth Land - [21492]	VIC
Commonwealth Land - [60115]	TAS
Commonwealth Land - [21509]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [60114]	TAS
Commonwealth Land - [21583]	VIC
Commonwealth Land - [60113]	TAS
Commonwealth Land - [21570]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [21582]	VIC

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Cape Sorell Lighthouse	TAS	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
Sorrento Post Office	VIC	Listed place

Name	State	Status
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Stiltia isabella Australian Pratincole [818]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Symposiachrus trivirgatus as Monarcha trivirgatus		
Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii		
Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes		
Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola		
Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area

Current Scientific Name	Status	Type of Presence
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Hyperoodon planifrons Southern Bottlenose Whale [71]		Species or species habitat may occur within area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats [Resource Information]

Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
East Gippsland	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Baawang	Reference Area	VIC
Badger Box Creek	Nature Reserve	TAS
Bald Hills B.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass Pyramid	Nature Reserve	TAS
Bats Ridge W.R	Nature Conservation Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Bellarine I109 B.R.	Natural Features Reserve	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Black Pyramid Rock	Nature Reserve	TAS
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Calder River	Reference Area	VIC
Cape Howe	Wilderness Zone	VIC
Cape Howe	Marine National Park	VIC
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Sorell	Historic Site	TAS
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Councillor Island	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Counsel Hill	Conservation Area	TAS
Croajingolong	National Park	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Deen Maar	Indigenous Protected Area	VIC
Deep Lagoons	Conservation Area	TAS
Devils Tower	Nature Reserve	TAS
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Eagle Rock	Marine Sanctuary	VIC
East Gippsland Coastal streams	Natural Catchment Area	VIC
East Moncoeur Island	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Fingal B.R	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Four Mile Beach	Regional Reserve	TAS
French Island	National Park	VIC
Gentle Annie	Conservation Area	TAS
Goose Lagoon W.R	Natural Features Reserve	VIC
Great Otway	National Park	VIC

Protected Area Name	Reserve Type	State
Hogan Group	Conservation Area	TAS
Johanna Falls S.R.	Natural Features Reserve	VIC
Kentford Forest	Conservation Area	TAS
Kentford Forest	Nature Reserve	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lymwood	Conservation Covenant	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Merri	Marine Sanctuary	VIC

Protected Area Name	Reserve Type	State
Millwood Road	Conservation Covenant	TAS
Mornington Peninsula	National Park	VIC
Mount Heemskirk	Regional Reserve	TAS
Mount Vereker Creek	Natural Catchment Area	VIC
Muddy Lagoon	Nature Reserve	TAS
Mushroom Reef	Marine Sanctuary	VIC
Narrawong F.R.	Nature Conservation Reserve	VIC
New Year Island	Game Reserve	TAS
North East Islet	Nature Reserve	TAS
Ocean Beach	Conservation Area	TAS
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Phillip Island Nature Park	Other	VIC
Pieman River	State Reserve	TAS
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Port Phillip Heads	Marine National Park	VIC
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Rame Head	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rodondo Island	Nature Reserve	TAS
Sandpatch	Wilderness Zone	VIC
Sartoris Rd Nugara	Conservation Covenant	TAS
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Creek	Reference Area	VIC
Seal Rocks	State Reserve	TAS
Seal Rocks	Conservation Area	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS

Protected Area Name	Reserve Type	State
Southwest	Conservation Area	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Sugarloaf Rock	Conservation Area	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tambar	Conservation Covenant	TAS
Tarwin Lower F.R.	Nature Conservation Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
The Arches	Marine Sanctuary	VIC
Tikkawoppa Plateau	Regional Reserve	TAS
Tin Mine Rd Loorana	Conservation Covenant	TAS
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Trial Harbour	State Reserve	TAS
Twelve Apostles	Marine National Park	VIC
Unnamed P0176	Private Nature Reserve	VIC
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Waratah B.R	Natural Features Reserve	VIC
West Moncoeur Island	Nature Reserve	TAS
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Wright Rock	Nature Reserve	TAS
Yambacoona	Conservation Covenant	TAS
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yanakie F.R	Nature Conservation Reserve	VIC

Regional Forest Agreements

[Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State

RFA Name	State
East Gippsland RFA	Victoria
Gippsland RFA	Victoria
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Benedore River	VIC
Bungaree Lagoon	TAS
Corner Inlet	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lavinia Nature Reserve	TAS
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Mud Islands	VIC
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Shallow Inlet Marine & Coastal Park	VIC
Swan Bay & Swan Island	VIC
Tower Hill	VIC
Western Port	VIC

Wetland Name	State
Yambuk Wetlands	VIC

EPBC Act Referrals

[Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Basalt Quarry Extension (Mountainview Quarry)	2004/1329	Controlled Action	Completed
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Geelong Salt Fields Urban Renewal Project	2012/6630	Controlled Action	Assessment Approach
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Heemskirk Windfarm Development	2002/678	Controlled Action	Completed
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Estate, 251-319 Melaluka Rd	2007/3308	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Residential Subdivision and Stormwater Enhancements for land west of Ash Road	2012/6544	Controlled Action	Completed
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Barwon River Parkland Initiative, Taits Point, Stages 1 and 2	2010/5437	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of a Dwelling	2011/6160	Not Controlled Action	Completed
Construction of an ocean access boat ramp at Bastion Point	2004/1407	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Extension of Mountain View basalt quarry by 113 hectares (stage one)	2004/1591	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Sole-2 appraisal gas well, VIC/RL3	2002/636	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Sparrovale Wetland stormwater management, Armstrong Creek and Charlemont, VIC	2018/8375	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
Wastewater Treatment System Upgrade	2004/1420	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey Program in Bass Strait	2008/4040	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
development of retirement village, Bellarine Lakes Golf Course, Bellarine Hwy	2006/3015	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Granville Wind Farm, TAS	2012/6585	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Luxury Cruise on the Gordon River, Tasmanian Wilderness PT 2	2006/3044	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness WHA	2004/1846	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Marine Farming Expansion, Macquarie Harbour, TAS	2012/6406	Not Controlled Action (Particular Manner)	Post-Approval
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular Manner)	Post-Approval
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Holloman 2010 Vic/P60 3D Seismic Acquisition Survey Program	2009/5251	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
Stanton 3D Marine Seismic Survey	2013/6764	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Big Horseshoe Canyon	South-east
Bonney Coast Upwelling	South-east
Upwelling East of Eden	South-east

Name	Region
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Seabirds		
Ardenna grisea Sooty Shearwater [82651]	Foraging	Likely to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Likely to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Sharks		
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Megaptera novaeangliae Humpback Whale [38]	Foraging	Known to occur

Bioregional Assessments		
SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
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Acknowledgements

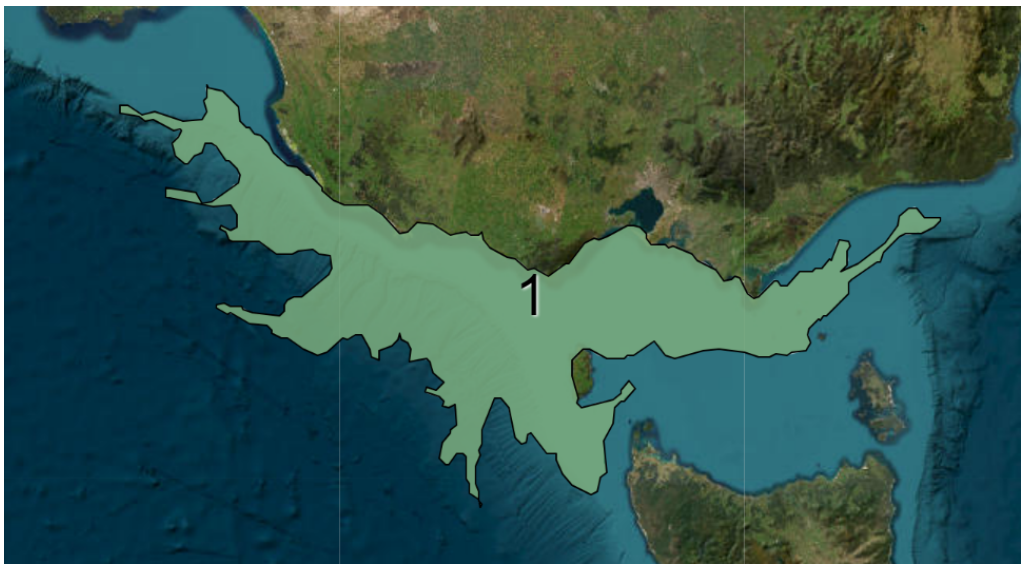


Figure: Permit VIC/P79 North MDO (low threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	3
Wetlands of International Importance (Ramsar	6
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	11
Listed Threatened Species:	137
Listed Migratory Species:	81

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	51
Commonwealth Heritage Places:	8
Listed Marine Species:	135
Whales and Other Cetaceans:	32
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	8
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	164
Regional Forest Agreements:	3
Nationally Important Wetlands:	26
EPBC Act Referrals:	255
Key Ecological Features (Marine):	3
Biologically Important Areas:	35
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places [Resource Information]

Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place

Wetlands of International Importance (Ramsar Wetlands) [Resource Information]

Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Piccaninnie ponds karst wetlands	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area

Community Name	Threatened Category	Presence Text
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community may occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community may occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Foraging, feeding or related behaviour known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
CRUSTACEAN		

Scientific Name	Threatened Category	Presence Text
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat known to occur within area
FISH		
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Nannoperca variegata		
Variegated Pygmy Perch, Ewens Pygmy Perch, Golden Pygmy Perch [26178]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
INSECT		
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
MAMMAL		
Antechinus minimus maritimus Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii Victorian subspecies Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area

Scientific Name	Threatened Category	Presence Text
[Petauroides volans](#)		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area
[Petaurus australis australis](#)		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
[Potorous tridactylus trisulcatus](#)		
Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
[Pseudomys fumeus](#)		
Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
[Pseudomys novaehollandiae](#)		
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
[Pseudomys shortridgei](#)		
Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
[Pteropus poliocephalus](#)		
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
OTHER		
[Hyridella glenelgensis](#)		
Glenelg Freshwater Mussel [82953]	Critically Endangered	Species or species habitat may occur within area
PLANT		
[Amphibromus fluitans](#)		
River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
[Astelia australiana](#)		
Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
[Caladenia calcicola](#)		
Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia colorata Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat known to occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat may occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat may occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat likely to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Pomaderris halmaturina subsp. halmaturina		
Kangaroo Island Pomaderris [21964]	Vulnerable	Species or species habitat known to occur within area
Prasophyllum diversiflorum		
Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii		
Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale		
Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum spicatum		
Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Pterostylis chlorogramma		
Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata		
Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis tenuissima		
Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri		
Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area
Senecio macrocarpus		
Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus		
Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Taraxacum cygnorum Coast Dandelion, Native Dandelion [2508]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
SHARK		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Foraging, feeding or related behaviour known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		

Scientific Name	Threatened Category	Presence Text
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Foraging, feeding or related behaviour known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC

Commonwealth Land Name	State
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC

Commonwealth Land Name	State
Transport and Regional Services - Australian Maritime Safety Authority	
Commonwealth Land - Australian Maritime Safety Authority [41289]	SA
Commonwealth Land - Australian Maritime Safety Authority [41288]	SA
Unknown	
Commonwealth Land - [21487]	VIC
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [21582]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21570]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [21488]	VIC
Commonwealth Land - [60111]	TAS
Commonwealth Land - [21492]	VIC
Commonwealth Land - [60112]	TAS
Commonwealth Land - [21491]	VIC
Commonwealth Land - [21490]	VIC

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Cape Northumberland Lighthouse	SA	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		

Name	State	Status
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Chroicocephalus novaehollandiae as Larus novaehollandiae		
Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni		
Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor		
Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala		
Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura		
Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Foraging, feeding or related behaviour known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalasseus bergii as Sterna bergii Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area overfly marine area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus Wandering Tattler [831]		Foraging, feeding or related behaviour known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys tryoni Tryon's Pipefish [66193]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Physeter macrocephalus Sperm Whale [59]		Foraging, feeding or related behaviour known to occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Murray	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Murray	Special Purpose Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthurs Seat	State Park	VIC
Badger Box Creek	Nature Reserve	TAS
Bald Hills B.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bats Ridge W.R	Nature Conservation Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Black Pyramid Rock	Nature Reserve	TAS
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Bucks Lake	Game Reserve	SA
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Calder River	Reference Area	VIC
Canunda	National Park	SA

Protected Area Name	Reserve Type	State
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Carpenter Rocks	Conservation Park	SA
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Deen Maar	Indigenous Protected Area	VIC
Devils Tower	Nature Reserve	TAS
Dingley Dell	Conservation Park	SA
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Douglas Point	Conservation Park	SA
Dromana B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Dry Creek	Forest Reserve	SA
Eagle Rock	Marine Sanctuary	VIC
East Moncoeur Island	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Ewens Ponds	Conservation Park	SA
Fingal B.R	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Glenelg River	Heritage River	VIC
Goose Lagoon W.R	Natural Features Reserve	VIC
Gorae B.R.	Natural Features Reserve	VIC
Great Otway	National Park	VIC
Hedditch Hill S.R.	Natural Features Reserve	VIC
Hogan Group	Conservation Area	TAS
Hopkins Falls S.R.	Natural Features Reserve	VIC
Johanna Falls S.R.	Natural Features Reserve	VIC
Johnstones Creek F.R	Nature Conservation Reserve	VIC
Kentbruck H14 B.R	Natural Features Reserve	VIC
Kentbruck H50 B.R.	Natural Features Reserve	VIC
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC

Protected Area Name	Reserve Type	State
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Lily Pond B.R.	Natural Features Reserve	VIC
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lower Glenelg	National Park	VIC
Lower Glenelg River	Conservation Park	SA
Lower South East	Marine Park	SA
Main Ridge N.C.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Merri	Marine Sanctuary	VIC
Mornington Peninsula	National Park	VIC
Mount Richmond	National Park	VIC
Mount Vereker Creek	Natural Catchment Area	VIC
Mouzie B.R	Natural Features Reserve	VIC
Mouzie N.F.R	Natural Features Reserve	VIC
Muddy Lagoon	Nature Reserve	TAS
Mushroom Reef	Marine Sanctuary	VIC

Protected Area Name	Reserve Type	State
Narrawong F.R.	Nature Conservation Reserve	VIC
Nelson SS.R.	Natural Features Reserve	VIC
Nene Valley	Conservation Park	SA
New Year Island	Game Reserve	TAS
North East Islet	Nature Reserve	TAS
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Phillip Island Nature Park	Other	VIC
Piccaninnie Ponds	Conservation Park	SA
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reid Rocks	Nature Reserve	TAS
Rodondo Island	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Rosebud B.R.	Natural Features Reserve	VIC
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	Conservation Area	TAS
Seal Rocks	State Reserve	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Sugarloaf Rock	Conservation Area	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
The Arches	Marine Sanctuary	VIC
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Twelve Apostles	Marine National Park	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed (No.HA1038)	Heritage Agreement	SA
Unnamed (No.HA1166)	Heritage Agreement	SA
Unnamed (No.HA1180)	Heritage Agreement	SA
Unnamed (No.HA1404)	Heritage Agreement	SA

Protected Area Name	Reserve Type	State
Unnamed (No.HA1457)	Heritage Agreement	SA
Unnamed (No.HA1560)	Heritage Agreement	SA
Unnamed (No.HA26)	Heritage Agreement	SA
Unnamed (No.HA42)	Heritage Agreement	SA
Unnamed (No.HA497)	Heritage Agreement	SA
Unnamed P0176	Private Nature Reserve	VIC
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Waratah B.R	Natural Features Reserve	VIC
West Moncoeur Island	Nature Reserve	TAS
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC
Yanakie F.R	Nature Conservation Reserve	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
Gippsland RFA	Victoria
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Bungaree Lagoon	TAS
Corner Inlet	VIC
Ewens Ponds	SA
Glenelg Estuary	VIC
Glenelg River	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS

Wetland Name	State
Lavinia Nature Reserve	TAS
Long Swamp	VIC
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Mud Islands	VIC
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Piccaninnie Ponds	SA
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Shallow Inlet Marine & Coastal Park	VIC
Swan Bay & Swan Island	VIC
Tower Hill	VIC
Western Port	VIC
Yambuk Wetlands	VIC

EPBC Act Referrals

[Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Southern Winds Offshore Wind Project	2022/09435		Assessment

Title of referral	Reference	Referral Outcome	Assessment Status
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Glenelg Dolomite Quarry	2017/8021	Controlled Action	Post-Approval
Green Point Wind Farm	2001/529	Controlled Action	Post-Approval
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Pelican Point residential subdivision	2006/2529	Controlled Action	Completed
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Allendale wind farm	2007/3549	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and	2008/4653	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Climate			
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Eight Mile Creek Drainage Works, Peacocks Road, Eight Mile Creek, SA	2014/7170	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Gleneig Spiny Crayfish Habitat Rehabilitation	2011/6164	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Kongorong Wind Farm	2002/568	Not Controlled Action	Completed
Laslett Wind Farm	2007/3550	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Lot 5 Pelican Point Road, Pelican Point SA - Proposed New Dwelling	2021/9011	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Oceanlinx South Australia 1mW Greenwave Project	2012/6528	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Piccaninnie Ponds flow path restoration project, SA	2013/6711	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Sole-2 appraisal gas well, VIC/RL3	2002/636	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Upgrade of existing access track	2011/5933	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm	2002/691	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey, EPP33	2004/1794	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey Program in Bass Strait	2008/4040	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
2D Siesmic Marine Survey	2008/4074	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
construction of a 14km , 33kV distribution line, including connection to the Lake Bonney Central win	2003/1108	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Oil 3D Seismic Survey	2002/768	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey in Petroleum Permit Area EPP27	2002/648	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Vegetation clearance and residential subdivision near Mt Gambier	2004/1370	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
2D Seismic Survey	2008/3978	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Darymple 3D Seismic Survey, Petroleum Exploration Permit	2010/5322	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
T/41P			
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
Stanton 3D Marine Seismic Survey	2013/6764	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wind Farm	2001/139	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Bonney Coast Upwelling	South-east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas		
Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Seals		
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Known to occur
Neophoca cinerea Australian Sea Lion [22]	Foraging (male and female)	Known to occur
Sharks		
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (abundant food source)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Physeter macrocephalus Sperm Whale [59]	Foraging likely (abundant food source)	Known to occur

Bioregional Assessments		
SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

[Summary](#)
[Details](#)
- [Matters of NES](#)
- [Other Matters Protected by the EPBC Act](#)
- [Extra Information](#)

[Caveat](#)
[Acknowledgements](#)

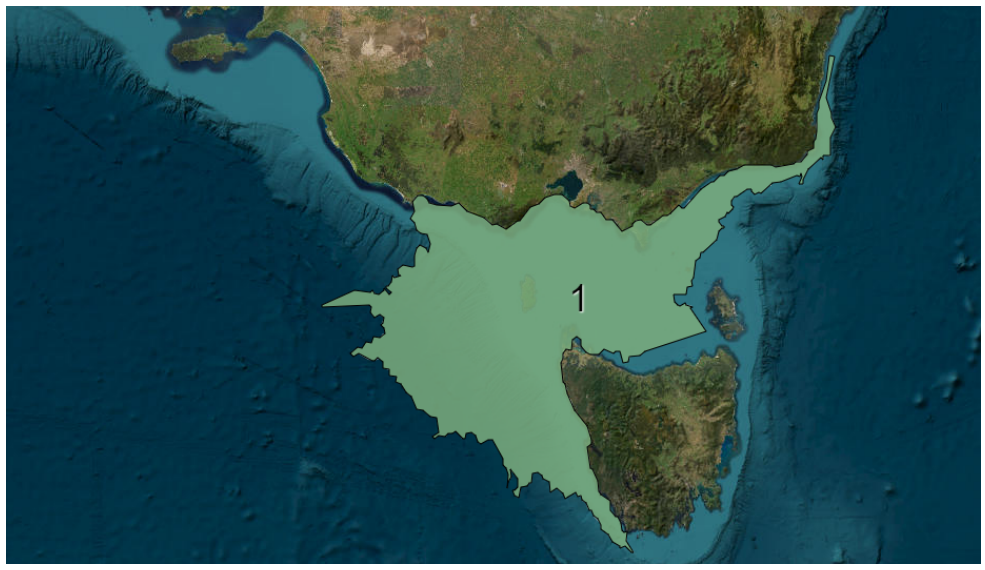


Figure: Permit T/49P LOWC (moderate threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	1
National Heritage Places:	5
Wetlands of International Importance (Ramsar	6
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	19
Listed Threatened Species:	179
Listed Migratory Species:	88

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	65
Commonwealth Heritage Places:	11
Listed Marine Species:	139
Whales and Other Cetaceans:	32
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	9
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	273
Regional Forest Agreements:	5
Nationally Important Wetlands:	34
EPBC Act Referrals:	290
Key Ecological Features (Marine):	6
Biologically Important Areas:	54
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Legal Status
Tasmanian Wilderness	TAS	Declared property

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place
Natural		
Tasmanian Wilderness	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Gippsland lakes	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within 10km of Ramsar site
Lavinia	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Alpine Sphagnum Bogs and Associated Fens	Endangered	Community may occur within area
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Brogo Vine Forest of the South East Corner Bioregion	Endangered	Community likely to occur within area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Illawarra and south coast lowland forest and woodland ecological community	Critically Endangered	Community may occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community may occur within area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area
Lowland Grassy Woodland in the South East Corner Bioregion	Critically Endangered	Community likely to occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area

Community Name	Threatened Category	Presence Text
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area
Aquila audax fleayi		
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Breeding known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat known to occur within area
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area
FISH		

Scientific Name	Threatened Category	Presence Text
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
Thymichthys politus		
Red Handfish [83756]	Critically Endangered	Species or species habitat may occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat known to occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Litoria watsoni		
Watson's Tree Frog [91509]	Endangered	Species or species habitat known to occur within area
Mixophyes balbus		
Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat may occur within area
INSECT		
Oreisplanus munionga larana		
Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Antechinus minimus maritimus		
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population)		
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Dasyurus maculatus maculatus (Tasmanian population)		
Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus		
Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii		
Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii		
Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat likely to occur within area
Perameles gunnii Victorian subspecies		
Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Potorous longipes Long-footed Potoroo [217]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
Pseudomys shortridgei Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Sarcophilus harrisii Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
PLANT		
Acacia caerulescens Limestone Blue Wattle, Buchan Blue, Buchan Blue Wattle [21883]	Vulnerable	Species or species habitat may occur within area
Acacia constablei Narrabarba Wattle [10798]	Critically Endangered	Species or species habitat known to occur within area
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
Caladenia campbellii Thick-stem Caladenia, Thick-stem Fairy Fingers [64857]	Critically Endangered	Species or species habitat may occur within area
Caladenia dienema Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat likely to occur within area
Caladenia lindleyana Lindley's Spider-orchid [9305]	Critically Endangered	Species or species habitat likely to occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat may occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Centrolepis pedderensis Pedder Centrolepis, Pedder Bristlewort [12647]	Endangered	Species or species habitat likely to occur within area
Commersonia prostrata Dwarf Kerrawang [87152]	Endangered	Species or species habitat likely to occur within area
Correa baeuerlenii Chef's Cap [17007]	Vulnerable	Species or species habitat likely to occur within area
Correa lawrenceana var. genoensis Genoa River Correa [66626]	Endangered	Species or species habitat may occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat known to occur within area
Craspedia preminghana Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat known to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area
Diuris lanceolata Snake Orchid [10231]	Endangered	Species or species habitat known to occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat likely to occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat likely to occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Pomaderris parrisiae Parris' Pomaderris [22119]	Vulnerable	Species or species habitat known to occur within area
Prasophyllum atratum Three Hummock Leek-orchid [82677]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pseudocephalozia paludicola Alpine Leafy Liverwort [66441]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis rubenachii Arthur River Greenhood [64536]	Endangered	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat may occur within area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Thelymitra jonesii Sky-blue Sun-orchid [76352]	Endangered	Species or species habitat may occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
Westringia davidii [19079]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Lissolepis coventryi		
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Tympanocryptis pinguicolla		
Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		
Carcharias taurus (east coast population)		
Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat known to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Zearaja maugeana		
Maugean Skate, Port Davey Skate [83504]	Endangered	Species or species habitat known to occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		

Scientific Name	Threatened Category	Presence Text
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		

Scientific Name	Threatened Category	Presence Text
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20081]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20083]	VIC
Defence - HMAS CERBERUS [20082]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20084]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20080]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20098]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC

Commonwealth Land Name	State
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Unknown	
Commonwealth Land - [21509]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [60116]	TAS
Commonwealth Land - [60111]	TAS
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60118]	TAS
Commonwealth Land - [21496]	VIC
Commonwealth Land - [60112]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [21497]	VIC
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21491]	VIC
Commonwealth Land - [21498]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21488]	VIC
Commonwealth Land - [60134]	TAS
Commonwealth Land - [60133]	TAS

Commonwealth Land Name	State
Commonwealth Land - [60346]	TAS
Commonwealth Land - [60135]	TAS
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21582]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [21570]	VIC

Commonwealth Heritage Places [Resource Information]

Name	State	Status
Historic		
Cape Sorell Lighthouse	TAS	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
Gabo Island Lighthouse	VIC	Listed place
HMAS Cerberus Central Area Group	VIC	Listed place
Montague Island Lighthouse	NSW	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica as Puffinus pacificus Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii		
Greater Crested Tern [83000]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes		
Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola		
Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura tentaculata		
Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area
Cosmocampus howensis		
Lord Howe Pipefish [66208]		Species or species habitat may occur within area
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		

Scientific Name	Threatened Category	Presence Text
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats [Resource Information]

Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories
Tasman Fracture	Marine National Park Zone (IUCN II)
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Tasman Fracture	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)

Park Name	Zone & IUCN Categories
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Agnes Falls S.R.	Natural Features Reserve	VIC
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Arthur River Rd Marrawah	Conservation Covenant	TAS
Baawang	Reference Area	VIC
Badger Box Creek	Nature Reserve	TAS
Badger River	Regional Reserve	TAS
Bald Hills B.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass Pyramid	Nature Reserve	TAS
Bass River SS.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Batemans	Marine Park	NSW
Bay of Islands Coastal Park	Conservation Park	VIC
Bemm, Goolengook, Arte and Errinundra Rivers	Heritage River	VIC
Ben Boyd	National Park	NSW
Bennison F.F.R.	Nature Conservation Reserve	VIC
Beware Reef	Marine Sanctuary	VIC
Bird Island	Game Reserve	TAS
Black Pyramid Rock	Nature Reserve	TAS
Black River	Conservation Area	TAS
Black River Bridge	Conservation Area	TAS
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Brashton Dairies #1	Conservation Covenant	TAS
Brashton Dairies #2	Conservation Covenant	TAS
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Brick Islands	Conservation Area	TAS
Brodribb River F.F.R	Nature Conservation Reserve	VIC
Bull Rock	Conservation Area	TAS
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Cabbage Tree Creek F.R	Nature Conservation Reserve	VIC
Calder River	Reference Area	VIC

Protected Area Name	Reserve Type	State
Calm Bay	State Reserve	TAS
Cape Conran Coastal Park	Conservation Park	VIC
Cape Howe	Wilderness Zone	VIC
Cape Howe	Marine National Park	VIC
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Sorell	Historic Site	TAS
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corner Inlet	Marine National Park	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Crayfish Creek	Regional Reserve	TAS
Crib Point G228 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Crib Point G229 B.R.	Natural Features Reserve	VIC
Croajingolong	National Park	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Darriman H29 B.R	Natural Features Reserve	VIC
Deep Lagoons	Conservation Area	TAS
Devils Tower	Nature Reserve	TAS
Disappointment Bay	State Reserve	TAS
Discovery Bay Coastal Park	Conservation Park	VIC
Eagle Rock	Marine Sanctuary	VIC
East Gippsland Coastal streams	Natural Catchment Area	VIC
East Moncoeur Island	Conservation Area	TAS
Edgcumbe Beach	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Entrance Point	Reference Area	VIC
Ewing Morass W.R	Natural Features Reserve	VIC
Fingal B.R	Natural Features Reserve	VIC
First and Second Islands F.R.	Nature Conservation Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Forwards Beach	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Four Mile Beach	Regional Reserve	TAS
Franklin River SS.R.	Natural Features Reserve	VIC
French Island	National Park	VIC
Fresh-water Swamp, Woodside Beach W.R	Natural Features Reserve	VIC
Gentle Annie	Conservation Area	TAS
Gippsland Lakes Coastal Park	Conservation Park	VIC
Great Otway	National Park	VIC
Harbour Islets	Conservation Area	TAS
Harcus Island	Conservation Area	TAS
Harcus River Rd West Montagu	Conservation Covenant	TAS
Harcus River Road #4	Conservation Covenant	TAS
Harcus River Road Marrawah	Conservation Covenant	TAS
Henderson Islets	Conservation Area	TAS
Highfield	Historic Site	TAS
Hoddle Range F.R.	Nature Conservation Reserve	VIC
Hogan Group	Conservation Area	TAS
Hunter Island	Conservation Area	TAS
Jack Smith Lake W.R	Natural Features Reserve	VIC
Johanna Falls S.R.	Natural Features Reserve	VIC
Kangaroo Island	Conservation Area	TAS
Kentford Forest	Conservation Area	TAS
Kentford Forest	Nature Reserve	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Kings Run	Private Nature Reserve	TAS
Kings Run #2	Conservation Covenant	TAS
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Corringle W.R	Natural Features Reserve	VIC
Lake Curlip W.R.	Natural Features Reserve	VIC
Lake Denison W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Lake Tyers S.P.	State Park	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Little Peggs Beach	State Reserve	TAS
Little Trefoil	Conservation Area	TAS
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lymwood	Conservation Covenant	TAS
Lyons Cottage	Historic Site	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC

Protected Area Name	Reserve Type	State
Merri	Marine Sanctuary	VIC
Millwood Road	Conservation Covenant	TAS
Mimosa Rocks	National Park	NSW
Montagu Beach	Conservation Area	TAS
Montague Island	Nature Reserve	NSW
Montagu Island	Conservation Area	TAS
Mornington Peninsula	National Park	VIC
Mount Dundas	Regional Reserve	TAS
Mount Heemskirk	Regional Reserve	TAS
Mount Vereker Creek	Natural Catchment Area	VIC
Muddy Lagoon	Nature Reserve	TAS
Murkay Islets	Conservation Area	TAS
Mushroom Reef	Marine Sanctuary	VIC
Nadgee	Nature Reserve	NSW
Nares Rocks	Conservation Area	TAS
Narrawong F.R.	Nature Conservation Reserve	VIC
New Year Island	Game Reserve	TAS
New Zealand Hill F.R.	Nature Conservation Reserve	VIC
Ninety Mile Beach	Marine National Park	VIC
Nooramunga Marine & Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
North East Islet	Nature Reserve	TAS
Ocean Beach	Conservation Area	TAS
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Peggs Beach	Conservation Area	TAS
Penguin Islet	Nature Reserve	TAS
Perkins Island	Conservation Area	TAS
Petrel Islands	Game Reserve	TAS
Phillip Island Nature Park	Other	VIC
Pieman River	State Reserve	TAS
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Rame Head	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Rebecca Creek	Conservation Area	TAS
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS

Protected Area Name	Reserve Type	State
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rocky Cape	National Park	TAS
Rodondo Island	Nature Reserve	TAS
Sandpatch	Wilderness Zone	VIC
Sartoris Rd Nugara	Conservation Covenant	TAS
Seacrow Islet	Conservation Area	TAS
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Creek	Reference Area	VIC
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	Conservation Area	TAS
Seal Rocks	State Reserve	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Shell Islets	Conservation Area	TAS
Slaves Bay	Conservation Area	TAS
Snowy River	Heritage River	VIC
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS
Southwest	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Southwest	National Park	TAS
Stack Island	Game Reserve	TAS
Stanley	Conservation Area	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Strahan Customs House	Historic Site	TAS
Sugarloaf Rock	Conservation Area	TAS
Sundown Point	State Reserve	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tambar	Conservation Covenant	TAS
Tarra Tarra B.R	Natural Features Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
Tatlows Beach	Conservation Area	TAS
Teepookana	Regional Reserve	TAS
Temma	Conservation Covenant	TAS
The Arches	Marine Sanctuary	VIC
The Doughboys	Nature Reserve	TAS
The Nut	State Reserve	TAS
Three Hummock Island	State Reserve	TAS
Tikkawoppa Plateau	Regional Reserve	TAS
Tin Mine Rd Loorana	Conservation Covenant	TAS
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Trial Harbour	State Reserve	TAS
Tully River	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Twelve Apostles	Marine National Park	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed (Duck Bay)	Conservation Area	TAS
Unnamed C0293	Private Nature Reserve	VIC
Unnamed P0155	Private Nature Reserve	VIC
Unnamed P0176	Private Nature Reserve	VIC
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Wallaby Islands	Conservation Area	TAS
Waratah B.R	Natural Features Reserve	VIC
Warra Creek	Regional Reserve	TAS
Welcome River	State Reserve	TAS
Welshpool H17 B.R	Natural Features Reserve	VIC
West Inlet	Conservation Area	TAS
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Whipstick Gully N.F.R.	Natural Features Reserve	VIC
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
William Hunter F.R	Nature Conservation Reserve	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Marine National Park	VIC

Protected Area Name	Reserve Type	State
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonga Wonga South B.R	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Woodside H26 B.R.	Natural Features Reserve	VIC
Woodside H27 B.R	Natural Features Reserve	VIC
Woodside H28 B.R	Natural Features Reserve	VIC
Yambacoona	Conservation Covenant	TAS
Yanakie F.R	Nature Conservation Reserve	VIC

Regional Forest Agreements

[Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State

RFA Name	State
East Gippsland RFA	Victoria
Eden RFA	New South Wales
Gippsland RFA	Victoria
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands

[Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Benedore River	VIC
Bungaree Lagoon	TAS
Corner Inlet	VIC
Ewing's Marsh (Morass)	VIC
Jack Smith Lake State Game Reserve	VIC
Lake Ashwood	TAS
Lake Bantick	TAS
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lake Garcia	TAS
Lake Tyers	VIC
Lavinia Nature Reserve	TAS
Lower Aire River Wetlands	VIC
Lower Snowy River Wetlands System	VIC
Mallacoota Inlet Wetlands	VIC
Mud Islands	VIC
Nadgee Lake and tributary wetlands	NSW
Pearshape Lagoon 1	TAS

Wetland Name	State
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Rocky Cape Marine Area	TAS
Shallow Inlet Marine & Coastal Park	VIC
Snowy River	VIC
Swan Bay & Swan Island	VIC
Sydenham Inlet Wetlands	VIC
Tamboon Inlet Wetlands	VIC
Thurra River	VIC
Unnamed Wetland	TAS
Western Port	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Robbins Island Renewable Energy Park, Robbins Island, Tasmania	2017/8096		Approval
Seadragon Offshore Wind Farm	2022/9163		Assessment
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alberton Wind Farm, Sth Gippsland, Vic	2017/7854	Controlled Action	Post-Approval
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Crib Point to Pakenham Gas Pipeline, Vic	2018/8297	Controlled Action	Completed
Dairy Farm expansion on the Woolnorth property	2013/6710	Controlled Action	Completed
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Gas Import Facility, Crib Point, Vic	2018/8298	Controlled Action	Completed
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Heemskirk Windfarm Development	2002/678	Controlled Action	Completed
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Maintenance Dredging of Toora Boat Ramp Channel	2008/4376	Controlled Action	Completed
Mosquito Control	2005/2132	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Robbins Island Road to Hampshire Transmission Line	2020/8656	Controlled Action	Referral Decision
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Tarkine Forest Drive Road Upgrade	2011/6210	Controlled Action	Post-Approval
Tasmania Natural Gas Project - Stage 2	2001/211	Controlled Action	Post-Approval
The Tarkine Road Project	2009/5169	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Western Plains wind farm	2010/5712	Controlled Action	Assessment Approach
White Rock Wind Farm	2003/986	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Windfarm	2003/1109	Controlled Action	Completed
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
55m lattice tower & infrastructure	2003/1159	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Acquistion of 2D seismic data in State Waters adjacent to Ninety Mile Beach-VIC/P39(V)	2004/1889	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Angas and Galloway Exploration Wells VIC/P39(v)	2005/2330	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Aquacullture facility for rainbow trout and yabbies and recreational facilities	2002/822	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Field Development	2007/3402	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Bass Basin - Pee Jay-1 - Drilling Program	2007/3908	Not Controlled Action	Completed
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of an ocean access boat ramp at Bastion Point	2004/1407	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
Dredging of Tuross Lake channel and depositon of spoil in lake	2004/1554	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
Duck Irrigation System, north-west coast Tasmania	2016/7778	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Eden Wind Farm	2011/6037	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Fabrication and Spooling of Pipe Strings at Crib Point	2008/4127	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Installation of a 3.5kW Wind Turbine	2012/6604	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kipper Tuna Turrum Project Maintenance Dredging	2010/5430	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance dredging of Yaringa Channel	2004/1360	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Pipeline easement regrowth removal	2011/5817	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Latta Wind Farm, Tas	2018/8249	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Port Welshpool Harbour Dredging	2007/3521	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Sole-2 appraisal gas well, VIC/RL3	2002/636	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Spikey Beach 1, West Triton Drilling Program, Bass Basin Permit T/38P	2007/3914	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
To undertake maintenance dredging of the Toora Boat Ramp Channel, VIC	2014/7225	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D & 3D seismic survey T/39P	2005/2237	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Aquisition Survey	2008/4041	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey Program in Bass Strait	2008/4040	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Bitumen Storage Facility	2007/3676	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
Collection of cast bull kelp	2002/813	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construction of wharf	2003/1050	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf extension, NSW	2015/7582	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf Extension, NSW	2016/7828	Not Controlled Action (Particular Manner)	Completed
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Granville Wind Farm, TAS	2012/6585	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness PT 2	2006/3044	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness WHA	2004/1846	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance dredging of 150,000 cubic metres of sediment in Burnie Port and du	2004/1569	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Marine Farming Expansion, Macquarie Harbour, TAS	2012/6406	Not Controlled Action (Particular Manner)	Post-Approval
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular Manner)	Post-Approval
Removal of Tasmanian blue gums	2004/1356	Not Controlled Action (Particular Manner)	Post-Approval
Remove silt build up on existing swales around the perimeter of the Three Hummo	2010/5676	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval
Soil and Organic Recycling Facility	2005/2216	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Upgrade of Arthur River Road	2003/930	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
West Seahorse Oil Development Project, Commonwealth waters offshore Victoria	2013/6973	Not Controlled Action (Particular Manner)	Post-Approval
Wilson's Creek Bridge Replacement, Bass Highway	2007/3892	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed
Breeding program for Grey Nurse Sharks	2007/3245	Referral Decision	Completed
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Kelly Channel Discharge, Macquarie Harbour, Tasmania	2017/8057	Referral Decision	Completed
Land clearing for stock grazing	2005/2176	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
Stanton 3D Marine Seismic Survey	2013/6764	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Corringle Road	2009/4825	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Big Horseshoe Canyon	South-east

Name	Region
Bonney Coast Upwelling	South-east
Seamounts South and east of Tasmania	South-east
Shelf rocky reefs	Temperate east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Seabirds		
Ardenna carneipes Flesh-footed Shearwater [82404]	Foraging	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Breeding	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Likely to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Likely to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Likely to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Likely to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Macronectes giganteus Southern Giant Petrel [1060]	Foraging	Known to occur
Macronectes halli Northern Giant Petrel [1061]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Oceanites oceanites Wilsons Storm Petrel [1034]	Migration	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur

Scientific Name	Behaviour	Presence
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Likely to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Procellaria parkinsoni Black Petrel [1048]	Foraging	Likely to occur
Pterodroma macroptera Great-winged Petrel [1035]	Foraging	Likely to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche cauta steadi White-capped Albatross [82344]	Foraging	Known to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Likely to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Thalasseus bergii Crested Tern [83000]	Breeding	Known to occur
Thalasseus bergii Crested Tern [83000]	Foraging	Likely to occur
Sharks		

Scientific Name	Behaviour	Presence
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Megaptera novaeangliae Humpback Whale [38]	Foraging	Known to occur

Bioregional Assessments		
SubRegion	BioRegion	Website

SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit VIC/P79 South LOWC (moderate threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	4
Wetlands of International Importance (Ramsar	6
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	16
Listed Threatened Species:	168
Listed Migratory Species:	85

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	71
Commonwealth Heritage Places:	7
Listed Marine Species:	138
Whales and Other Cetaceans:	32
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	7
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	242
Regional Forest Agreements:	5
Nationally Important Wetlands:	30
EPBC Act Referrals:	282
Key Ecological Features (Marine):	3
Biologically Important Areas:	40
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Gippsland lakes	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities	[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central	Endangered	Community likely to occur within area

Community Name	Threatened Category	Presence Text
Victoria ecological community		
Brogo Vine Forest of the South East Corner Bioregion	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community may occur within area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area
Lowland Grassy Woodland in the South East Corner Bioregion	Critically Endangered	Community may occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area
Aquila audax fleayi		
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum		
Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne		
South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Breeding known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat likely to occur within area
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area
FISH		
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Litoria watsoni		
Watson's Tree Frog [91509]	Endangered	Species or species habitat may occur within area
INSECT		
Oreisplanus munionga larana		
Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Antechinus minimus maritimus		
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (Tasmanian population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Perameles gunnii Victorian subspecies		
Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area
Potorous longipes		
Long-footed Potoroo [217]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus		
Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus		
Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
Pseudomys novaehollandiae		
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
Pseudomys shortridgei		
Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Sarcophilus harrisii		
Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
PLANT		

Scientific Name	Threatened Category	Presence Text
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat likely to occur within area
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
Caladenia colorata Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat likely to occur within area
Caladenia dienema Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat may occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat likely to occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat may occur within area
Commersonia prostrata Dwarf Kerrawang [87152]	Endangered	Species or species habitat known to occur within area
Correa baeuerlenii Chef's Cap [17007]	Vulnerable	Species or species habitat likely to occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat known to occur within area
Craspedia preminghana Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat known to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area
Diuris lanceolata Snake Orchid [10231]	Endangered	Species or species habitat known to occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat known to occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat likely to occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Pomaderris parrisiae Parris' Pomaderris [22119]	Vulnerable	Species or species habitat may occur within area
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Prostanthera galbraithiae Wellington Mintbush [64959]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis rubenachii Arthur River Greenhood [64536]	Endangered	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat may occur within area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding likely to occur within area
Tympanocryptis pinguicolla Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		

Scientific Name	Threatened Category	Presence Text
Carcharias taurus (east coast population)		
Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat likely to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Eubalaena australis as Balaena glacialis australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus		
Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus		
Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Breeding likely to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus		
Sperm Whale [59]		Species or species habitat may occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Cuculus optatus		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20092]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC

Commonwealth Land Name	State
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Unknown	
Commonwealth Land - [22391]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [60111]	TAS
Commonwealth Land - [60112]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21497]	VIC
Commonwealth Land - [21491]	VIC
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21498]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [21570]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21488]	VIC
Commonwealth Land - [21582]	VIC

Commonwealth Land Name	State
Commonwealth Land - [21583]	VIC

Commonwealth Heritage Places [Resource Information]

Name	State	Status
Historic		
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Chalcites osculans as Chrysococcyx osculans		
Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus		
Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus		
Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Charadrius veredus		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae		
Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni		
Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Foraging, feeding or related behaviour known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys tryoni Tryon's Pipefish [66193]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding likely to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats [Resource Information]

Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State
Agnes Falls S.R.	Natural Features Reserve	VIC
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Albatross Island	Nature Reserve	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Arthur River Rd Marrawah	Conservation Covenant	TAS
Arthurs Seat	State Park	VIC
Baawang	Reference Area	VIC
Badger Box Creek	Nature Reserve	TAS
Bald Hill N.C.R	Natural Features Reserve	VIC
Bald Hills B.R.	Natural Features Reserve	VIC
Bald Hills Creek W.R	Nature Conservation Reserve	VIC
Balnarring G95 B.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass River SS.R.	Natural Features Reserve	VIC
Bats Ridge W.R	Nature Conservation Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Bemm, Goolengook, Arte and Errinundra Rivers	Heritage River	VIC
Bennison F.F.R.	Nature Conservation Reserve	VIC
Beware Reef	Marine Sanctuary	VIC
Black Pyramid Rock	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Brodribb River F.F.R	Nature Conservation Reserve	VIC
Buckley N.C.R.	Natural Features Reserve	VIC
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Cabbage Tree Creek F.R	Nature Conservation Reserve	VIC
Calder River	Reference Area	VIC
Calm Bay	State Reserve	TAS
Cape Conran Coastal Park	Conservation Park	VIC
Cape Howe	Wilderness Zone	VIC
Cape Howe	Marine National Park	VIC
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corner Inlet	Marine National Park	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Crinoline Creek	Reference Area	VIC
Croajingolong	National Park	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Darriman H29 B.R	Natural Features Reserve	VIC
Deen Maar	Indigenous Protected Area	VIC
Deep Lagoons	Conservation Area	TAS
Devils Tower	Nature Reserve	TAS
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Doomburrin B.R	Natural Features Reserve	VIC
Drakes B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Dromana B.R.	Natural Features Reserve	VIC
Drumdlemara H1 B.R	Natural Features Reserve	VIC
Drumdlemara H2 B.R	Natural Features Reserve	VIC
Drumdlemara H4 B.R	Natural Features Reserve	VIC
Drumdlemara H8 B.R	Natural Features Reserve	VIC
Eagle Rock	Marine Sanctuary	VIC
East Gippsland Coastal streams	Natural Catchment Area	VIC
East Moncoeur Island	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Entrance Point	Reference Area	VIC
Fingal B.R	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Franklin River SS.R.	Natural Features Reserve	VIC
French Island	National Park	VIC
Fresh-water Swamp, Woodside Beach W.R	Natural Features Reserve	VIC
Gentle Annie	Conservation Area	TAS
Giffard H31 B.R	Natural Features Reserve	VIC
Gippsland Lakes Coastal Park	Conservation Park	VIC
Goose Lagoon W.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Gorae B.R.	Natural Features Reserve	VIC
Great Otway	National Park	VIC
Hoddle Range F.R.	Nature Conservation Reserve	VIC
Hogan Group	Conservation Area	TAS
Jack Smith Lake W.R	Natural Features Reserve	VIC
Johanna Falls S.R.	Natural Features Reserve	VIC
Kangerong N.C.R	Natural Features Reserve	VIC
Kentford Forest	Nature Reserve	TAS
Kentford Forest	Conservation Area	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Kings Flat F.R	Nature Conservation Reserve	VIC
Kings Run	Private Nature Reserve	TAS
Kings Run #2	Conservation Covenant	TAS
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Curlip W.R.	Natural Features Reserve	VIC
Lake Denison W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Latrobe B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Leongatha H3 B.R.	Natural Features Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lymwood	Conservation Covenant	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Merri	Marine Sanctuary	VIC
Merricks Creek B.R.	Natural Features Reserve	VIC
Millwood Road	Conservation Covenant	TAS
Mimosa Rocks	National Park	NSW
Mornington Peninsula	National Park	VIC
Mount Richmond	National Park	VIC
Mount Vereker Creek	Natural Catchment Area	VIC
Muddy Lagoon	Nature Reserve	TAS
Mushroom Reef	Marine Sanctuary	VIC
Narrawong F.R.	Nature Conservation Reserve	VIC
New Year Island	Game Reserve	TAS
New Zealand Hill F.R.	Nature Conservation Reserve	VIC
Ninety Mile Beach	Marine National Park	VIC

Protected Area Name	Reserve Type	State
Nooramunga Marine & Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
North East Islet	Nature Reserve	TAS
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Phillip Island Nature Park	Other	VIC
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Rame Head	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Red Hill South B.R.	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rodondo Island	Nature Reserve	TAS
Rosebud B.R.	Natural Features Reserve	VIC
Salt Lagoon, St Leonards W.R	Nature Conservation Reserve	VIC
Sandpatch	Wilderness Zone	VIC
Sartoris Rd Nugara	Conservation Covenant	TAS
Screw Creek N.C.R.	Natural Features Reserve	VIC
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Creek	Reference Area	VIC
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	Conservation Area	TAS
Seal Rocks	State Reserve	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Slaves Bay	Conservation Area	TAS
Snowy River	Heritage River	VIC
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC

Protected Area Name	Reserve Type	State
South Rd Nugara	Conservation Covenant	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Sugarloaf Rock	Conservation Area	TAS
Sundown Point	State Reserve	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tambar	Conservation Covenant	TAS
Tarra Tarra B.R	Natural Features Reserve	VIC
Tarwin Lower F.R.	Nature Conservation Reserve	VIC
Tarwin South B.R	Natural Features Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
The Arches	Marine Sanctuary	VIC
Tin Mine Rd Loorana	Conservation Covenant	TAS
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Twelve Apostles	Marine National Park	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed P0155	Private Nature Reserve	VIC
Unnamed P0176	Private Nature Reserve	VIC
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Waratah B.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Warra Creek	Regional Reserve	TAS
Warrigal Creek SS.R.	Natural Features Reserve	VIC
Welshpool H17 B.R	Natural Features Reserve	VIC
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Whipstick Gully N.F.R.	Natural Features Reserve	VIC
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonga Wonga South B.R	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi G242 B.R.	Natural Features Reserve	VIC
Wonthaggi G243 B.R.	Natural Features Reserve	VIC
Wonthaggi G244 B.R.	Natural Features Reserve	VIC
Wonthaggi G245 B.R.	Natural Features Reserve	VIC
Wonthaggi G246 B.R	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Woodside H26 B.R.	Natural Features Reserve	VIC
Woodside H27 B.R	Natural Features Reserve	VIC
Woodside H28 B.R	Natural Features Reserve	VIC
Yambacoona	Conservation Covenant	TAS
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC
Yanakie F.R	Nature Conservation Reserve	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
East Gippsland RFA	Victoria
Eden RFA	New South Wales
Gippsland RFA	Victoria

RFA Name	State
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Bald Hills State Wildlife Reserve	VIC
Benedore River	VIC
Bungaree Lagoon	TAS
Corner Inlet	VIC
Jack Smith Lake State Game Reserve	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lavinia Nature Reserve	TAS
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Lower Snowy River Wetlands System	VIC
Mud Islands	VIC
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Shallow Inlet Marine & Coastal Park	VIC
Snowy River	VIC
Swan Bay & Swan Island	VIC

Wetland Name	State
Sydenham Inlet Wetlands	VIC
Tamboon Inlet Wetlands	VIC
Thurra River	VIC
Tower Hill	VIC
Unnamed Wetland	TAS
Western Port	VIC
Yambuk Wetlands	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Seadragon Offshore Wind Farm	2022/9163		Assessment
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alberton Wind Farm, Sth Gippsland, Vic	2017/7854	Controlled Action	Post-Approval
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Boundary Road Quarry extension, Dromana, Vic	2018/8221	Controlled Action	Assessment Approach

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Maintenance Dredging of Toora Boat Ramp Channel	2008/4376	Controlled Action	Completed
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Tarkine Forest Drive Road Upgrade	2011/6210	Controlled Action	Post-Approval
The Tarkine Road Project	2009/5169	Controlled Action	Completed
Thomson River Mercury Recovery Project	2010/5734	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Windfarm	2003/1109	Controlled Action	Completed
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Acquistion of 2D seismic data in State Waters adjacent to Ninety Mile Beach-VIC/P39(V)	2004/1889	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Angas and Galloway Exploration Wells VIC/P39(v)	2005/2330	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of an ocean access boat ramp at Bastion Point	2004/1407	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
development of retirement resort	2004/1828	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Kipper Tuna Turrum Project Maintenance Dredging	2010/5430	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Oceanlinx South Australia 1mW Greenwave Project	2012/6528	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Port Welshpool Harbour Dredging	2007/3521	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Development, 409 The Esplanade, St Leonards	2006/2950	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
To undertake maintenance dredging of the Toora Boat Ramp Channel, VIC	2014/7225	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Upgrade of existing access track	2011/5933	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey, EPP33	2004/1794	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
2D Siesmic Marine Survey	2008/4074	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Bass Coast, South Gippsland and Cardinia Shires, Gas Pipeline and Lang Lang Offtake and City Gate St	2006/2867	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
Collection of cast bull kelp	2002/813	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construction of wharf	2003/1050	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf extension, NSW	2015/7582	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf Extension, NSW	2016/7828	Not Controlled Action (Particular Manner)	Completed
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Maintenance Dredging Program	2009/4953	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular Manner)	Post-Approval
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey in Petroleum Permit Area EPP27	2002/648	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Soil and Organic Recycling Facility	2005/2216	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Upgrade of Arthur River Road	2003/930	Not Controlled Action (Particular Manner)	Post-Approval
Vegetation clearance and residential subdivision near Mt Gambier	2004/1370	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
West Seahorse Oil Development Project, Commonwealth waters offshore Victoria	2013/6973	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
2D Seismic Survey	2008/3978	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed
Land clearing for stock grazing	2005/2176	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wind Farm with 80 Turbines for Production of Electricity	2002/699	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Bonney Coast Upwelling	South-east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus		
Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Seabirds		
Ardenna grisea		
Sooty Shearwater [82651]	Foraging	Likely to occur
Ardenna pacifica		
Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica		
Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris		
Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris		
Short-tailed Shearwater [82652]	Foraging	Likely to occur
Ardenna tenuirostris		
Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato)		
Wandering Albatross [1073]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur

Scientific Name	Behaviour	Presence
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Seals		
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Known to occur
Sharks		
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur

Scientific Name	Behaviour	Presence
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Megaptera novaeangliae Humpback Whale [38]	Foraging	Known to occur

Bioregional Assessments

SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

[Summary](#)

[Details](#)

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

[Caveat](#)

[Acknowledgements](#)



Figure: Permit VIC/P79 North LOWC (moderate threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	4
Wetlands of International Importance (Ramsar	7
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	12
Listed Threatened Species:	156
Listed Migratory Species:	81

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	76
Commonwealth Heritage Places:	9
Listed Marine Species:	136
Whales and Other Cetaceans:	32
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	7
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	223
Regional Forest Agreements:	3
Nationally Important Wetlands:	26
EPBC Act Referrals:	284
Key Ecological Features (Marine):	3
Biologically Important Areas:	34
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Gippsland lakes	Within 10km of Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Piccaninnie ponds karst wetlands	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea

Listed Threatened Ecological Communities	[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community likely to occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Acanthornis magna greeniana King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Foraging, feeding or related behaviour known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat may occur within area
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat known to occur within area
FISH		
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Nannoperca variegata		
Variegated Pygmy Perch, Ewens Pygmy Perch, Golden Pygmy Perch [26178]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
FROG		
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
INSECT		
Oreisplanus munionga larana		
Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Antechinus minimus maritimus		
Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Dasyurus maculatus maculatus (SE mainland population)		
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (Tasmanian population)		
Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus		
Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii		
Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii		
Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat likely to occur within area
Perameles gunnii Victorian subspecies		
Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus		
Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Pseudomys fumeus](#) Smoky Mouse, Konoom [88]	Endangered	Species or species habitat may occur within area
[Pseudomys novaehollandiae](#) New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
[Pseudomys shortridgei](#) Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
[Pteropus poliocephalus](#) Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
[Sarcophilus harrisii](#) Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
OTHER		
[Hyridella glenelgensis](#) Glenelg Freshwater Mussel [82953]	Critically Endangered	Species or species habitat may occur within area
PLANT		
[Amphibromus fluitans](#) River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
[Astelia australiana](#) Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
[Caladenia calcicola](#) Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
[Caladenia colorata](#) Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat known to occur within area
[Caladenia dienema](#) Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat known to occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat known to occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat may occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat may occur within area
Craspedia preminghana Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat may occur within area
Diuris lanceolata Snake Orchid [10231]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat may occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Pomaderris halmaturina subsp. halmaturina Kangaroo Island Pomaderris [21964]	Vulnerable	Species or species habitat known to occur within area
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Taraxacum cygnorum Coast Dandelion, Native Dandelion [2508]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Xerochrysum palustre](#) Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
REPTILE		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
[Delma impar](#) Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Eretmochelys imbricata](#) Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
[Lissolepis coventryi](#) Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
[Tympanocryptis pinguicolla](#) Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		
[Carcharias taurus (east coast population)](#) Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat may occur within area
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
[Centrophorus harrissoni](#) Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area
[Calidris tenuirostris](#) Great Knot [862]	Critically Endangered	Roosting known to occur within area
[Charadrius bicinctus](#) Double-banded Plover [895]		Roosting known to occur within area
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
[Gallinago megala](#) Swinhoe's Snipe [864]		Roosting likely to occur within area

Scientific Name	Threatened Category	Presence Text
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20101]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - HMAS CERBERUS [20098]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20082]	VIC
Defence - HMAS CERBERUS [20084]	VIC
Defence - HMAS CERBERUS [20080]	VIC
Defence - HMAS CERBERUS [20083]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC

Commonwealth Land Name	State
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Transport and Regional Services - Australian Maritime Safety Authority	
Commonwealth Land - Australian Maritime Safety Authority [41288]	SA
Commonwealth Land - Australian Maritime Safety Authority [41289]	SA
Unknown	
Commonwealth Land - [60111]	TAS
Commonwealth Land - [21491]	VIC

Commonwealth Land Name	State
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21492]	VIC
Commonwealth Land - [60112]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [60114]	TAS
Commonwealth Land - [21570]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21488]	VIC
Commonwealth Land - [21582]	VIC

Commonwealth Heritage Places [Resource Information]

Name	State	Status
Historic		
Cape Northumberland Lighthouse	SA	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
HMAS Cerberus Central Area Group	VIC	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Migration route known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Foraging, feeding or related behaviour known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Stiltia isabella Australian Pratincole [818]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Thalasseus bergii as Sterna bergii Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys tryoni Tryon's Pipefish [66193]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Australian Marine Parks	[Resource Information]
Park Name	Zone & IUCN Categories
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Murray	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Badger Box Creek	Nature Reserve	TAS
Bald Hills B.R.	Natural Features Reserve	VIC
Balnarring G95 B.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass River SS.R.	Natural Features Reserve	VIC
Bats Ridge W.R	Nature Conservation Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Bellarine I109 B.R.	Natural Features Reserve	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Black Pyramid Rock	Nature Reserve	TAS
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Buckley N.C.R.	Natural Features Reserve	VIC
Bucks Lake	Game Reserve	SA
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Calder River	Reference Area	VIC
Calm Bay	State Reserve	TAS
Canunda	National Park	SA
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Carpenter Rocks	Conservation Park	SA
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corner Inlet	Marine National Park	VIC

Protected Area Name	Reserve Type	State
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Crib Point G228 B.R.	Natural Features Reserve	VIC
Crib Point G229 B.R.	Natural Features Reserve	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Deen Maar	Indigenous Protected Area	VIC
Deep Lagoons	Conservation Area	TAS
Devils Tower	Nature Reserve	TAS
Dingley Dell	Conservation Park	SA
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Douglas Point	Conservation Park	SA
Drakes B.R.	Natural Features Reserve	VIC
Drumdlemara H1 B.R	Natural Features Reserve	VIC
Drumdlemara H2 B.R	Natural Features Reserve	VIC
Drumdlemara H4 B.R	Natural Features Reserve	VIC
Dry Creek	Forest Reserve	SA
Eagle Rock	Marine Sanctuary	VIC
East Moncoeur Island	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Entrance Point	Reference Area	VIC
Ewens Ponds	Conservation Park	SA
Fingal B.R	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
French Island	National Park	VIC
French Island (north)	Reference Area	VIC
French Island G230 B.R	Natural Features Reserve	VIC
Gentle Annie	Conservation Area	TAS
Glenelg River	Heritage River	VIC
Goose Lagoon W.R	Natural Features Reserve	VIC
Gorae B.R.	Natural Features Reserve	VIC
Great Otway	National Park	VIC
Hedditch Hill S.R.	Natural Features Reserve	VIC
Hoddle Range F.R.	Nature Conservation Reserve	VIC
Hogan Group	Conservation Area	TAS
Hopkins Falls S.R.	Natural Features Reserve	VIC
Johanna Falls S.R.	Natural Features Reserve	VIC
Johnstones Creek F.R	Nature Conservation Reserve	VIC
Kangerong N.C.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Kentbruck H14 B.R	Natural Features Reserve	VIC
Kentbruck H50 B.R.	Natural Features Reserve	VIC
Kentford Forest	Nature Reserve	TAS
Kentford Forest	Conservation Area	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Leongatha H3 B.R.	Natural Features Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lower Glenelg	National Park	VIC
Lower Glenelg River	Conservation Park	SA
Lower South East	Marine Park	SA
Lymwood	Conservation Covenant	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Merri	Marine Sanctuary	VIC
Merricks Creek B.R.	Natural Features Reserve	VIC
Millwood Road	Conservation Covenant	TAS
Mornington Peninsula	National Park	VIC
Mount Richmond	National Park	VIC
Mount Vereker Creek	Natural Catchment Area	VIC
Mouzie B.R	Natural Features Reserve	VIC
Mouzie N.F.R	Natural Features Reserve	VIC
Muddy Lagoon	Nature Reserve	TAS
Mushroom Reef	Marine Sanctuary	VIC
Narrawong F.R.	Nature Conservation Reserve	VIC
Nelson SS.R.	Natural Features Reserve	VIC
Nene Valley	Conservation Park	SA
New Year Island	Game Reserve	TAS
New Zealand Hill F.R.	Nature Conservation Reserve	VIC
Ninety Mile Beach	Marine National Park	VIC
Nooramunga Marine & Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
North East Islet	Nature Reserve	TAS
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Phillip Island Nature Park	Other	VIC
Piccaninnie Ponds	Conservation Park	SA
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rodondo Island	Nature Reserve	TAS
Salt Lagoon, St Leonards W.R	Nature Conservation Reserve	VIC

Protected Area Name	Reserve Type	State
Sartoris Rd Nugara	Conservation Covenant	TAS
Screw Creek N.C.R.	Natural Features Reserve	VIC
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	State Reserve	TAS
Seal Rocks	Conservation Area	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Slaves Bay	Conservation Area	TAS
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Sugarloaf Rock	Conservation Area	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tambar	Conservation Covenant	TAS
Tarwin Lower F.R.	Nature Conservation Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
The Arches	Marine Sanctuary	VIC
Tin Mine Rd Loorana	Conservation Covenant	TAS
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Trewalla H49 B.R.	Natural Features Reserve	VIC
Twelve Apostles	Marine National Park	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed (No.HA1038)	Heritage Agreement	SA
Unnamed (No.HA1166)	Heritage Agreement	SA
Unnamed (No.HA1180)	Heritage Agreement	SA
Unnamed (No.HA1404)	Heritage Agreement	SA
Unnamed (No.HA1457)	Heritage Agreement	SA
Unnamed (No.HA1560)	Heritage Agreement	SA
Unnamed (No.HA26)	Heritage Agreement	SA
Unnamed (No.HA42)	Heritage Agreement	SA
Unnamed (No.HA497)	Heritage Agreement	SA
Unnamed C0293	Private Nature Reserve	VIC
Unnamed P0155	Private Nature Reserve	VIC
Unnamed P0176	Private Nature Reserve	VIC
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Waratah B.R	Natural Features Reserve	VIC
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Whipstick Gully N.F.R.	Natural Features Reserve	VIC
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonga Wonga South B.R	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Yambacoona	Conservation Covenant	TAS
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC
Yanakie F.R	Nature Conservation Reserve	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
Gippsland RFA	Victoria
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Bungaree Lagoon	TAS
Corner Inlet	VIC
Ewens Ponds	SA
Glenelg Estuary	VIC
Glenelg River	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lavinia Nature Reserve	TAS
Long Swamp	VIC
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Mud Islands	VIC
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Piccaninnie Ponds	SA

Wetland Name	State
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Shallow Inlet Marine & Coastal Park	VIC
Swan Bay & Swan Island	VIC
Tower Hill	VIC
Western Port	VIC
Yambuk Wetlands	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Controlled action			
Alberton Wind Farm, Sth Gippsland, Vic	2017/7854	Controlled Action	Post-Approval
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Basalt Quarry Extension (Mountainview Quarry)	2004/1329	Controlled Action	Completed
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Crib Point to Pakenham Gas Pipeline, Vic	2018/8297	Controlled Action	Completed
Dairy Farm expansion on the Woolnorth property	2013/6710	Controlled Action	Completed
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Gas Import Facility, Crib Point, Vic	2018/8298	Controlled Action	Completed
Geelong Salt Fields Urban Renewal Project	2012/6630	Controlled Action	Assessment Approach
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Glenelg Dolomite Quarry	2017/8021	Controlled Action	Post-Approval
Green Point Wind Farm	2001/529	Controlled Action	Post-Approval
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Pelican Point residential subdivision	2006/2529	Controlled Action	Completed
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Estate, 251-319 Melaluka Rd	2007/3308	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Residential Subdivision and Stormwater Enhancements for land west of Ash Road	2012/6544	Controlled Action	Completed
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
55m lattice tower & infrastructure	2003/1159	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Acquistion of 2D seismic data in State Waters adjacent to Ninety Mile Beach-VIC/P39(V)	2004/1889	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Allendale wind farm	2007/3549	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Angas and Galloway Exploration Wells VIC/P39(v)	2005/2330	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Aquacullture facility for rainbow trout and yabbies and recreational facilities	2002/822	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Barwon River Parkland Initiative, Taits Point, Stages 1 and 2	2010/5437	Not Controlled Action	Completed
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of a Dwelling	2011/6160	Not Controlled Action	Completed
Construction of a flexi mat boat ramp	2011/5838	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
development of retirement resort	2004/1828	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Eight Mile Creek Drainage Works, Peacocks Road, Eight Mile Creek, SA	2014/7170	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Extension of Mountain View basalt quarry by 113 hectares (stage one)	2004/1591	Not Controlled Action	Completed
Fabrication and Spooling of Pipe Strings at Crib Point	2008/4127	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Gleneig Spiny Crayfish Habitat Rehabilitation	2011/6164	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Kipper Tuna Turrum Project Maintenance Dredging	2010/5430	Not Controlled Action	Completed
Kongorong Wind Farm	2002/568	Not Controlled Action	Completed
Laslett Wind Farm	2007/3550	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Lot 5 Pelican Point Road, Pelican Point SA - Proposed New Dwelling	2021/9011	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance dredging of Yaringa Channel	2004/1360	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Oceanlinx South Australia 1mW Greenwave Project	2012/6528	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Piccaninnie Ponds flow path restoration project, SA	2013/6711	Not Controlled Action	Completed
Pipeline easement regrowth removal	2011/5817	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Residential Development, 409 The Esplanade, St Leonards	2006/2950	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Sparrovale Wetland stormwater management, Armstrong Creek and Charlemont, VIC	2018/8375	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Wastewater Treatment System Upgrade	2004/1420	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm	2002/691	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey, EPP33	2004/1794	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		(Particular Manner)	
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
2D Siesmic Marine Survey	2008/4074	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Bitumen Storage Facility	2007/3676	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
construction of a 14km , 33kV distribution line, including connection to the Lake Bonney Central win	2003/1108	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construction of wharf	2003/1050	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
development of retirement village, Bellarine Lakes Golf Course, Bellarine Hwy	2006/3015	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Oil 3D Seismic Survey	2002/768	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey in Petroleum Permit Area EPP27	2002/648	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Vegetation clearance and residential subdivision near Mt Gambier	2004/1370	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
West Seahorse Oil Development Project, Commonwealth waters offshore Victoria	2013/6973	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
2D Seismic Survey	2008/3978	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wind Farm	2001/139	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Bonney Coast Upwelling	South-east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Seabirds		
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Seals		
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Known to occur
Neophoca cinerea Australian Sea Lion [22]	Foraging (male and female)	Known to occur

Scientific Name	Behaviour	Presence
Sharks		
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur

Bioregional Assessments		
SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

[Summary](#)
[Details](#)
- [Matters of NES](#)
- [Other Matters Protected by the EPBC Act](#)
- [Extra Information](#)

[Caveat](#)
[Acknowledgements](#)

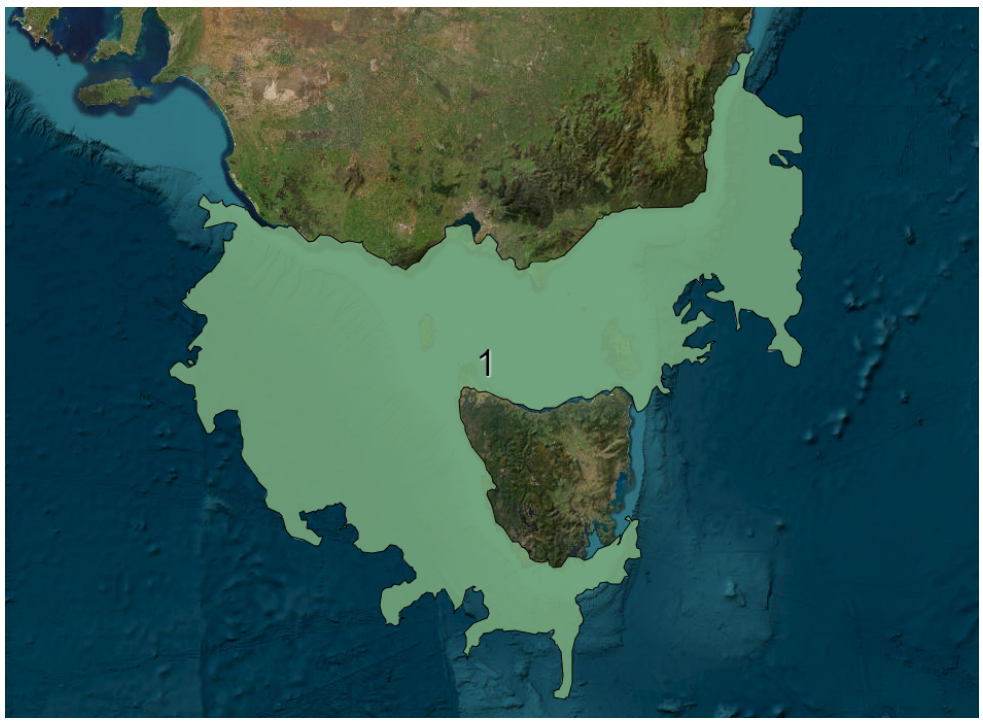


Figure: Permit T/49P LOWC (low threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	1
National Heritage Places:	6
Wetlands of International Importance (Ramsar	12
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	24
Listed Threatened Species:	244
Listed Migratory Species:	94

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	173
Commonwealth Heritage Places:	27
Listed Marine Species:	151
Whales and Other Cetaceans:	34
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	2
Australian Marine Parks:	16
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	554
Regional Forest Agreements:	6
Nationally Important Wetlands:	92
EPBC Act Referrals:	435
Key Ecological Features (Marine):	7
Biologically Important Areas:	60
Bioregional Assessments:	2
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Legal Status
Tasmanian Wilderness	TAS	Declared property

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Recherche Bay (North East Peninsula) Area	TAS	Listed place
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place
Natural		
Tasmanian Wilderness	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
East coast cape barren island lagoons	Within Ramsar site
Edithvale-seaford wetlands	Within 10km of Ramsar site
Flood plain lower ringarooma river	Within Ramsar site
Gippsland lakes	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Little waterhouse lake	Within Ramsar site
Logan lagoon	Within Ramsar site
Piccaninnie ponds karst wetlands	Within 10km of Ramsar site

Ramsar Site Name	Proximity
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area [Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name
EEZ and Territorial Sea
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Alpine Sphagnum Bogs and Associated Fens	Endangered	Community likely to occur within area
Araluen Scarp Grassy Forest	Endangered	Community may occur within area
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Brogo Vine Forest of the South East Corner Bioregion	Endangered	Community likely to occur within area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community likely to occur within area
Gippsland Red Gum (Eucalyptus tereticornis subsp. mediana) Grassy Woodland and Associated Native Grassland	Critically Endangered	Community likely to occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area

Community Name	Threatened Category	Presence Text
Illawarra and south coast lowland forest and woodland ecological community	Critically Endangered	Community likely to occur within area
Illawarra-Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community likely to occur within area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area
Lowland Grassy Woodland in the South East Corner Bioregion	Critically Endangered	Community likely to occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the South Eastern Highlands	Critically Endangered	Community may occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text

Scientific Name	Threatened Category	Presence Text
null		
Mordacia praecox		
Non-parasitic Lamprey, Precocious Lamprey [81530]	Endangered	Species or species habitat likely to occur within area
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis		
Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area
Aquila audax fleayi		
Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum		
Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Breeding known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pardalotus quadragintus Forty-spotted Pardalote [418]	Endangered	Foraging, feeding or related behaviour known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Breeding known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Breeding known to occur within area
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area

Scientific Name	Threatened Category	Presence Text
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat known to occur within area
Engaeus granulatus		
Central North Burrowing Crayfish [78959]	Endangered	Species or species habitat known to occur within area
Engaeus martigener		
Furneaux Burrowing Crayfish [67220]	Endangered	Species or species habitat known to occur within area
Engaeus yabbimunna		
Burnie Burrowing Crayfish [66781]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat likely to occur within area
FISH		
Brachionichthys hirsutus		
Spotted Handfish [64418]	Critically Endangered	Species or species habitat may occur within area
Brachiopsilus ziebelli		
Ziebell's Handfish, Waterfall Bay Handfish [83757]	Vulnerable	Species or species habitat likely to occur within area
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hippocampus whitei		
White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat known to occur within area
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Nannoperca variegata		
Variegated Pygmy Perch, Ewens Pygmy Perch, Golden Pygmy Perch [26178]	Vulnerable	Species or species habitat likely to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
Thymichthys politus		
Red Handfish [83756]	Critically Endangered	Species or species habitat may occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat known to occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Litoria watsoni		
Watson's Tree Frog [91509]	Endangered	Species or species habitat known to occur within area
Mixophyes balbus		
Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat known to occur within area
INSECT		
Antipodia chaostola leucophaea		
Tasmanian Chaostola Skipper, Heath-sand Skipper [77672]	Endangered	Species or species habitat known to occur within area
Oreisplanus munionga larana		
Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana		
Golden Sun Moth [25234]	Vulnerable	Species or species habitat likely to occur within area
MAMMAL		

Scientific Name	Threatened Category	Presence Text
Antechinus minimus maritimus Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (Tasmanian population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Dasyurus viverrinus Eastern Quoll, Luaner [333]	Endangered	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Miniopterus orianae bassanii Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Mirounga leonina Southern Elephant Seal [26]	Vulnerable	Breeding may occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat known to occur within area
Perameles gunnii Victorian subspecies Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area
Potorous longipes Long-footed Potoroo [217]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
Pseudomys shortridgei Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Sarcophilus harrisii Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
OTHER		
Dendronephthya australis Cauliflower Soft Coral [90325]	Endangered	Species or species habitat known to occur within area
Hyridella glenelgensis Glenelg Freshwater Mussel [82953]	Critically Endangered	Species or species habitat may occur within area
Megascolides australis Giant Gippsland Earthworm [64420]	Vulnerable	Species or species habitat may occur within area
PLANT		
Acacia caerulescens Limestone Blue Wattle, Buchan Blue, Buchan Blue Wattle [21883]	Vulnerable	Species or species habitat known to occur within area
Acacia constablei Narrabarba Wattle [10798]	Critically Endangered	Species or species habitat known to occur within area
Acacia georgensis Bega Wattle [9848]	Vulnerable	Species or species habitat known to occur within area
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
Astrotricha crassifolia Thick-leaf Star-hair [10352]	Vulnerable	Species or species habitat may occur within area
Banksia vincentia [88276]	Critically Endangered	Species or species habitat known to occur within area
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
Caladenia campbellii Thick-stem Caladenia, Thick-stem Fairy Fingers [64857]	Critically Endangered	Species or species habitat known to occur within area
Caladenia caudata Tailed Spider-orchid [17067]	Vulnerable	Species or species habitat known to occur within area
Caladenia colorata Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat known to occur within area
Caladenia dienema Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat known to occur within area
Caladenia lindleyana Lindley's Spider-orchid [9305]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat likely to occur within area
Caladenia pallida Rosy Spider Orchid, Pale Spider-orchid, Summer Spider-orchid [9604]	Critically Endangered	Species or species habitat likely to occur within area
Caladenia pumila Dwarf Spider-orchid [4155]	Critically Endangered	Species or species habitat likely to occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Caladenia tonellii Robust Fingers [64861]	Critically Endangered	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat known to occur within area
Cassinia rugata Wrinkled Cassinia, Wrinkled Dollybush [21885]	Vulnerable	Species or species habitat may occur within area
Centrolepis pedderensis Pedder Centrolepis, Pedder Bristlewort [12647]	Endangered	Species or species habitat likely to occur within area
Colobanthus curtisiae Curtis' Colobanth [23961]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Commersonia prostrata Dwarf Kerrawang [87152]	Endangered	Species or species habitat known to occur within area
Conospermum hookeri Variable Smoke-bush [68161]	Vulnerable	Species or species habitat likely to occur within area
Correa baeuerlenii Chef's Cap [17007]	Vulnerable	Species or species habitat known to occur within area
Correa lawrenceana var. genoensis Genoa River Correa [66626]	Endangered	Species or species habitat may occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat known to occur within area
Corunastylis rhyolitica listed as Genoplesium rhyoliticum Pambula Midge-orchid, Rhyolite Midge Orchid [78697]	Endangered	Species or species habitat likely to occur within area
Corunastylis vernalis listed as Genoplesium vernale East Lynne Midge-orchid [78699]	Vulnerable	Species or species habitat known to occur within area
Craspedia preminghana Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat known to occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Diuris basaltica Small Golden Moths Orchid, Early Golden Moths [64654]	Endangered	Species or species habitat may occur within area
Diuris lanceolata Snake Orchid [10231]	Endangered	Species or species habitat known to occur within area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat known to occur within area
Epacris stuartii Stuart's Heath, Southport Heath [10348]	Critically Endangered	Species or species habitat known to occur within area
Epacris virgata Pretty Heath, Dan Hill Heath [20375]	Endangered	Species or species habitat known to occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia amphisysepala Shiny Cliff Eyebright [4534]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Euphrasia fragosa Shy Eyebright, Southport Eyebright [64901]	Critically Endangered	Species or species habitat known to occur within area
Euphrasia gibbsiae subsp. psilantherea Swamp Eyebright [21507]	Critically Endangered	Species or species habitat known to occur within area
Euphrasia phragmostoma Buftons Eyebright, Hairy Cliff Eyebright [7720]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Euphrasia semipicta Peninsula Eyebright [9986]	Endangered	Species or species habitat known to occur within area
Euphrasia sp. Bivouac Bay (W.R.Barker 7626 et al.) Masked Eyebright, Masked Cliff Eyebright [82044]	Endangered	Species or species habitat known to occur within area
Genoplesium baueri Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid [7528]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat known to occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Leionema ralstonii [64926]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat known to occur within area
Lomatia tasmanica King's Lomatia [3745]	Critically Endangered	Species or species habitat known to occur within area
Melaleuca biconvexa Biconvex Paperbark [5583]	Vulnerable	Species or species habitat known to occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat known to occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area
Pomaderris cotoneaster Cotoneaster Pomaderris [2043]	Endangered	Species or species habitat may occur within area
Pomaderris parrisiae Parris' Pomaderris [22119]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Prasophyllum affine Jervis Bay Leek Orchid, Culburra Leek-orchid, Kinghorn Point Leek-orchid [2210]	Endangered	Species or species habitat known to occur within area
Prasophyllum apoxychilum Tapered Leek-orchid [64947]	Endangered	Species or species habitat known to occur within area
Prasophyllum atratum Three Hummock Leek-orchid [82677]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum castaneum Chestnut Leek-orchid [64948]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum robustum Robust Leek-orchid [12499]	Critically Endangered	Species or species habitat may occur within area
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Prostanthera densa Villous Mintbush [12233]	Vulnerable	Species or species habitat known to occur within area
Prostanthera galbraithiae Wellington Mintbush [64959]	Vulnerable	Species or species habitat known to occur within area
Pseudocephalozia paludicola Alpine Leafy Liverwort [66441]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area
Pterostylis rubenachii Arthur River Greenhood [64536]	Endangered	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat known to occur within area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat may occur within area
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat likely to occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Spyridium obcordatum Creeping Dusty Miller [17447]	Vulnerable	Species or species habitat known to occur within area
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat known to occur within area
Taraxacum cygnorum Coast Dandelion, Native Dandelion [2508]	Vulnerable	Species or species habitat may occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra jonesii Sky-blue Sun-orchid [76352]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat known to occur within area
Triplarina nowraensis Nowra Heath-myrtle [64544]	Endangered	Species or species habitat known to occur within area
Westringia davidii [19079]	Vulnerable	Species or species habitat may occur within area
Xanthorrhoea arenaria Sand Grasstree [21603]	Vulnerable	Species or species habitat likely to occur within area
Xanthorrhoea bracteata Shiny Grasstree [7950]	Endangered	Species or species habitat known to occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
Zieria tuberculata Warty Zieria [56736]	Vulnerable	Species or species habitat known to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Carinascincus palfreymani Pedra Branca Skink, Pedra Branca Cool-skink, Red-throated Skink [90203]	Vulnerable	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Hoplocephalus bungaroides		
Broad-headed Snake [1182]	Vulnerable	Species or species habitat may occur within area
Lissolepis coventryi		
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Tympanocryptis pinguicolla		
Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SEASTAR		
Parvulastra vivipara		
Tasmanian Live-bearing Seastar [85451]	Vulnerable	Species or species habitat known to occur within area
SHARK		
Carcharias taurus (east coast population)		
Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat known to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Zearaja maugeana		
Maugean Skate, Port Davey Skate [83504]	Endangered	Species or species habitat known to occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica		
Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Calonectris leucomelas		
Streaked Shearwater [1077]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat likely to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata		
Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus		
Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Dugong dugon Dugong [28]		Species or species habitat may occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Phocoena dioptrica Spectacled Porpoise [66728]		Species or species habitat may occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Symposiachrus trivirgatus as Monarcha trivirgatus](#) Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area
[Calidris subminuta](#) Long-toed Stint [861]		Roosting known to occur within area
[Calidris tenuirostris](#) Great Knot [862]	Critically Endangered	Roosting known to occur within area
[Charadrius bicinctus](#) Double-banded Plover [895]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting known to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands	[Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Australian National University	

Commonwealth Land Name	State
Commonwealth Land - Australian National University [12024]	NSW
Commonwealth Land - Australian National University [12023]	NSW
Commonwealth Land - Australian National University [12022]	NSW
Commonwealth Land - Australian National University [12021]	NSW
Commonwealth Land - Australian National University [12019]	NSW
Commonwealth Land - Australian National University [15737]	NSW
Commonwealth Trading Bank of Australia	
Commonwealth Land - Commonwealth Trading Bank of Australia [12020]	NSW
Communications, Information Technology and the Arts - Australian Postal Corporation	
Commonwealth Land - Australian Postal Commission [12052]	NSW
Communications, Information Technology and the Arts - Telstra Corporation Limited	
Commonwealth Land - Australian Telecommunications Commission [12050]	NSW
Commonwealth Land - Australian Telecommunications Commission [12053]	NSW
Commonwealth Land - Australian Telecommunications Commission [12049]	NSW
Commonwealth Land - Australian Telecommunications Commission [12025]	NSW
Commonwealth Land - Australian Telecommunications Commission [15611]	NSW
Commonwealth Land - Australian Telecommunications Commission [12265]	NSW
Commonwealth Land - Australian Telecommunications Commission [16089]	NSW
Commonwealth Land - Australian Telecommunications Commission [12014]	NSW
Commonwealth Land - Australian Telecommunications Commission [15535]	NSW
Commonwealth Land - Australian Telecommunications Commission [12038]	NSW
Commonwealth Land - Australian Telecommunications Commission [15430]	NSW
Commonwealth Land - Australian Telecommunications Commission [15461]	NSW

Commonwealth Land Name	State
Commonwealth Land - Telstra Corporation Limited [12051]	NSW
Commonwealth Land - Telstra Corporation Limited [15888]	NSW
Defence	
Defence - AIRTC GEELONG [21354]	VIC
Defence - BEECROFT RAPIER RANGE [10050]	NSW
Defence - BEECROFT RAPIER RANGE [10049]	NSW
Defence - BEECROFT RAPIER RANGE [10048]	NSW
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - DEVONPORT TRAINING DEPOT [60011]	TAS
Defence - DEVONPORT TRAINING DEPOT [60010]	TAS
Defence - DEVONPORT TRAINING DEPOT [60009]	TAS
Defence - DEVONPORT TRAINING DEPOT [60008]	TAS
Defence - DUTSON BOMBING RANGE [20034]	VIC
Defence - DUTSON BOMBING RANGE [20062]	VIC
Defence - DUTSON BOMBING RANGE [20061]	VIC
Defence - DUTSON BOMBING RANGE [20038]	VIC
Defence - DUTSON BOMBING RANGE [20033]	VIC
Defence - DUTSON BOMBING RANGE [20035]	VIC
Defence - DUTSON BOMBING RANGE [20037]	VIC
Defence - DUTSON BOMBING RANGE [20036]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20091]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20098]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - HMAS CERBERUS [20082]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20083]	VIC
Defence - HMAS CERBERUS [20080]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20084]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - Myers Street (opp. Geelong Hospital) [20450]	VIC
Defence - POINT WILSON EXPLOSIVES AREA [21442]	VIC
Defence - POINT WILSON EXPLOSIVES AREA [21441]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC

Commonwealth Land Name	State
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STONYHEAD TRAINING AREA [60025]	TAS
Defence - STONYHEAD TRAINING AREA [60026]	TAS
Defence - SUSSEX INLET - DEFENCE RESERVE [11233]	NSW
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC

Commonwealth Land Name	State
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Environment and Heritage	
Commonwealth Land - Booderee National Park [91004]	JBT
Commonwealth Land - Booderee National Park [91002]	JBT
Commonwealth Land - Booderee National Park [91005]	JBT
Commonwealth Land - Booderee National Park [91001]	JBT
Commonwealth Land - Booderee National Park [91003]	JBT
Unknown	
Commonwealth Land - [60111]	TAS
Commonwealth Land - [60124]	TAS
Commonwealth Land - [60125]	TAS
Commonwealth Land - [60128]	TAS
Commonwealth Land - [60129]	TAS
Commonwealth Land - [60127]	TAS
Commonwealth Land - [60122]	TAS
Commonwealth Land - [21590]	VIC
Commonwealth Land - [21591]	VIC
Commonwealth Land - [21498]	VIC
Commonwealth Land - [60067]	TAS
Commonwealth Land - [60064]	TAS
Commonwealth Land - [22390]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [60126]	TAS
Commonwealth Land - [12047]	NSW
Commonwealth Land - [60074]	TAS
Commonwealth Land - [12046]	NSW
Commonwealth Land - [12045]	NSW

Commonwealth Land Name	State
Commonwealth Land - [12042]	NSW
Commonwealth Land - [12041]	NSW
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21589]	VIC
Commonwealth Land - [60346]	TAS
Commonwealth Land - [21582]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [21488]	VIC
Commonwealth Land - [60181]	TAS
Commonwealth Land - [21507]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [21508]	VIC
Commonwealth Land - [21497]	VIC
Commonwealth Land - [60142]	TAS
Commonwealth Land - [60143]	TAS
Commonwealth Land - [60180]	TAS
Commonwealth Land - [60145]	TAS
Commonwealth Land - [60147]	TAS
Commonwealth Land - [60154]	TAS
Commonwealth Land - [60157]	TAS
Commonwealth Land - [60156]	TAS
Commonwealth Land - [21570]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [60135]	TAS
Commonwealth Land - [60134]	TAS
Commonwealth Land - [60137]	TAS
Commonwealth Land - [60136]	TAS

Commonwealth Land Name	State
Commonwealth Land - [60133]	TAS
Commonwealth Land - [60130]	TAS
Commonwealth Land - [60138]	TAS
Commonwealth Land - [60066]	TAS
Commonwealth Land - [60148]	TAS
Commonwealth Land - [60065]	TAS
Commonwealth Land - [60173]	TAS
Commonwealth Land - [60179]	TAS
Commonwealth Land - [60177]	TAS
Commonwealth Land - [60178]	TAS
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21491]	VIC
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21496]	VIC
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [60118]	TAS
Commonwealth Land - [60116]	TAS
Commonwealth Land - [60112]	TAS

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Cape Sorell Lighthouse	TAS	Listed place
Cape St George Lighthouse Ruins & Curtilage	ACT	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Christians Minde Settlement	ACT	Listed place
Eddystone Lighthouse	TAS	Listed place

Name	State	Status
Fort Queenscliff	VIC	Listed place
Gabo Island Lighthouse	VIC	Listed place
Goose Island Lighthouse	TAS	Listed place
HMAS Cerberus Central Area Group	VIC	Listed place
Jervis Bay Botanic Gardens	ACT	Listed place
Mersey Bluff Lighthouse	TAS	Listed place
Montague Island Lighthouse	NSW	Listed place
Point Perpendicular Lightstation	NSW	Listed place
Royal Australian Naval College	ACT	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Swan Island Lighthouse	TAS	Listed place
Table Cape Lighthouse	TAS	Listed place
Tasman Island Lighthouse	TAS	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Indigenous		
Crocodile Head Area	NSW	Within listed place
Jervis Bay Territory	ACT	Listed place
Natural		
Beecroft Peninsula	NSW	Listed place
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Point Wilson Defence Natural Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place
Tasmanian Seamounts Area	EXT	Listed place

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		

Scientific Name	Threatened Category	Presence Text
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica as Puffinus pacificus Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Breeding likely to occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat likely to occur within area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting known to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Foraging, feeding or related behaviour known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Breeding known to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Breeding known to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Stiltia isabella Australian Pratincole [818]		Roosting known to occur within area overfly marine area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura australe		
Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Acentronura tentaculata		
Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area
Campichthys tryoni		
Tryon's Pipefish [66193]		Species or species habitat may occur within area
Cosmocampus howensis		
Lord Howe Pipefish [66208]		Species or species habitat may occur within area
Heraldia nocturna		
Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis		
Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps		
Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Hippocampus whitei White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat known to occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Breeding known to occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Dugong dugon Dugong [28]		Species or species habitat may occur within area
Mirounga leonina Southern Elephant Seal [26]	Vulnerable	Breeding may occur within area

Scientific Name	Threatened Category	Presence Text
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata		
Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Current Scientific Name	Status	Type of Presence
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat likely to occur within area
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Balaenoptera physalus](#) Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Berardius arnuxii](#) Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon ginkgodens Gingko-toothed Beaked Whale, Gingko-toothed Whale, Gingko Beaked Whale [59564]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Phocoena dioptrica Spectacled Porpoise [66728]		Species or species habitat may occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats [Resource Information]

Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Commonwealth Reserves Terrestrial [Resource Information]

Name	State	Type
Booderee	JBT	National Park (Commonwealth)

Name	State	Type
Booderee	JBT	Botanic Gardens (Commonwealth)

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories
Huon	Habitat Protection Zone (IUCN IV)
Flinders	Marine National Park Zone (IUCN II)
Tasman Fracture	Marine National Park Zone (IUCN II)
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
East Gippsland	Multiple Use Zone (IUCN VI)
Flinders	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Huon	Multiple Use Zone (IUCN VI)
Tasman Fracture	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)
Tasman Fracture	Special Purpose Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)
Jervis	Special Purpose Zone (Trawl) (IUCN VI)

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State
Actaeon Island	Game Reserve	TAS
Agnes Falls S.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Anderson Islands	Conservation Area	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur Bay	Conservation Area	TAS
Arthur-Pieman	Conservation Area	TAS
Arthur River Rd Marrawah	Conservation Covenant	TAS
Arthurs Seat	State Park	VIC
Baawang	Reference Area	VIC
Babel Island	Indigenous Protected Area	TAS
Badger Box Creek	Nature Reserve	TAS
Badger Head	Conservation Covenant	TAS
Badger Island	Indigenous Protected Area	TAS
Badger River	Regional Reserve	TAS
Balcombe Creek B.R.	Natural Features Reserve	VIC
Bald Hill N.C.R	Natural Features Reserve	VIC
Bald Hills B.R.	Natural Features Reserve	VIC
Balnarring G95 B.R.	Natural Features Reserve	VIC
Bancroft Bay - Kalimna G.L.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Barwon Bluff	Marine Sanctuary	VIC
Bass Pyramid	Nature Reserve	TAS
Bass River SS.R.	Natural Features Reserve	VIC
Batemans	Marine Park	NSW
Bats Ridge W.R	Nature Conservation Reserve	VIC
Battery Island	Conservation Area	TAS
Baxter Island G.L.R.	Natural Features Reserve	VIC
Baynes Island	Nature Reserve	TAS
Bay of Islands Coastal Park	Conservation Park	VIC
Bellarine I109 B.R.	Natural Features Reserve	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Bell Bird Creek	Nature Reserve	NSW
Belowla Island	Nature Reserve	NSW
Bemm, Goolengook, Arte and Errinundra Rivers	Heritage River	VIC
Ben Boyd	National Park	NSW
Benedore River	Reference Area	VIC
Bennison F.F.R.	Nature Conservation Reserve	VIC
Bermaguee	Nature Reserve	NSW
Bermagui	Flora Reserve	NSW
Beware Reef	Marine Sanctuary	VIC
Biamanga	National Park	NSW
Big Bay	Conservation Area	TAS
Big Green Island	Nature Reserve	TAS
Big Silver	Conservation Covenant	TAS

Protected Area Name	Reserve Type	State
Bird Island	Game Reserve	TAS
Bittern B.R.	Natural Features Reserve	VIC
Black Pyramid Rock	Nature Reserve	TAS
Black River	Conservation Area	TAS
Black River Bridge	Conservation Area	TAS
Blond Bay G.L.R.	Natural Features Reserve	VIC
Blond Bay W.R.	Natural Features Reserve	VIC
Blyth Point	Conservation Area	TAS
Boat Harbour Road Killiecrankie	Conservation Covenant	TAS
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Boobyalla	Conservation Area	TAS
Bournda	Nature Reserve	NSW
Bournda	National Park	NSW
Boxen Island	Conservation Area	TAS
Brashton Dairies #1	Conservation Covenant	TAS
Brashton Dairies #2	Conservation Covenant	TAS
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Briant Hill	Nature Recreation Area	TAS
Brick Islands	Conservation Area	TAS
Briggs	Regional Reserve	TAS
Briggs Islet	Conservation Area	TAS
Brodribb River F.F.R	Nature Conservation Reserve	VIC

Protected Area Name	Reserve Type	State
Brougham Sugarloaf	Conservation Area	TAS
Broulee Island	Nature Reserve	NSW
Brush Island	Nature Reserve	NSW
Buckley N.C.R.	Natural Features Reserve	VIC
Bull Rock	Conservation Area	TAS
Bun Beetons Point	Conservation Area	TAS
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Burnett Point	Conservation Area	TAS
Cabbage Tree Creek F.R	Nature Conservation Reserve	VIC
Calder River	Reference Area	VIC
Calm Bay	State Reserve	TAS
Cameron	Regional Reserve	TAS
Cape Conran Coastal Park	Conservation Park	VIC
Cape Howe	Wilderness Zone	VIC
Cape Howe	Marine National Park	VIC
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Portland	Conservation Area	TAS
Cape Sorell	Historic Site	TAS
Cape Wickham	State Reserve	TAS
Cape Wickham	Conservation Area	TAS
Catamaran River	Conservation Area	TAS
Cataraqui Point	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Cat Island	Conservation Area	TAS
Chalky Island	Conservation Area	TAS
Chappell Islands	Nature Reserve	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS
Cloudy Bay Lagoon	Conservation Covenant	TAS
Cloudy Bay Lagoon	Marine Conservation Area	TAS
Cloudy Bay Road	Conservation Covenant	TAS
Clyde River	National Park	NSW
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Conjola	National Park	NSW
Corinella Cemetery B.R.	Natural Features Reserve	VIC
Corner Inlet	Marine National Park	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Craggy Island	Conservation Area	TAS
Crayfish Creek	Regional Reserve	TAS
Crib Point G228 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Crib Point G229 B.R.	Natural Features Reserve	VIC
Croajingolong	National Park	VIC
Cullendulla Creek	Nature Reserve	NSW
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
D'Entrecasteaux Watering Place	Historic Site	TAS
Darling Range	Conservation Area	TAS
Darriman H29 B.R	Natural Features Reserve	VIC
Deen Maar	Indigenous Protected Area	VIC
Deep Lagoons	Conservation Area	TAS
Deua	National Park	NSW
Devilbend N.F.R.	Natural Features Reserve	VIC
Devils Tower	Nature Reserve	TAS
Dip Range	Regional Reserve	TAS
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Doctors Rocks	Conservation Area	TAS
Don Heads	Conservation Area	TAS
Double Creek	Natural Catchment Area	VIC
Double Sandy Point	Conservation Area	TAS
Doughboy Island	Conservation Area	TAS
Drakes B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Dromana B.R.	Natural Features Reserve	VIC
Drumdlemara H1 B.R	Natural Features Reserve	VIC
Drumdlemara H2 B.R	Natural Features Reserve	VIC
Drumdlemara H4 B.R	Natural Features Reserve	VIC
Duck River	Conservation Area	TAS
Eagle Rock	Marine Sanctuary	VIC
Eagles Claw	Nature Reserve	NSW
East Gippsland Coastal streams	Natural Catchment Area	VIC
East Kangaroo Island	Nature Reserve	TAS
East Moncoeur Island	Conservation Area	TAS
Eddystone Point Lighthouse	Historic Site	TAS
Edgcumbe Beach	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Egg Beach	Conservation Area	TAS
Eldorado	Conservation Area	TAS
Emita	Nature Recreation Area	TAS
Entrance Point	Reference Area	VIC
Eurobodalla	National Park	NSW
Ewing Morass W.R	Natural Features Reserve	VIC
Farm Cove	Game Reserve	TAS
Fingal B.R	Natural Features Reserve	VIC
First and Second Islands F.R.	Nature Conservation Reserve	VIC
Five Mile Bluff	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Flannagan Island G.L.R.	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Foochow	Conservation Area	TAS
Forsyth Island	Conservation Area	TAS
Forwards Beach	Conservation Area	TAS
Fossil Beach G.R.	Natural Features Reserve	VIC
Fossil Bluff	Conservation Area	TAS
Foster Islands	Nature Reserve	TAS
Fotheringate Bay	Conservation Area	TAS
Four Mile Beach	Regional Reserve	TAS
Franklin River SS.R.	Natural Features Reserve	VIC
Fraser Island G.L.R.	Natural Features Reserve	VIC
French Island	National Park	VIC
French Island	Marine National Park	VIC
French Island (east)	Reference Area	VIC
French Island (north)	Reference Area	VIC
French Island G230 B.R	Natural Features Reserve	VIC
Fresh-water Swamp, Woodside Beach W.R	Natural Features Reserve	VIC
Gentle Annie	Conservation Area	TAS
George III Monument	Historic Site	TAS
George Rocks	Nature Reserve	TAS
Giffard H31 B.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Gippsland Lakes Coastal Park	Conservation Park	VIC
Goose Island	Conservation Area	TAS
Goose Lagoon W.R	Natural Features Reserve	VIC
Gorae B.R.	Natural Features Reserve	VIC
Grantville N.C.R	Natural Features Reserve	VIC
Great Dog Island	Indigenous Protected Area	TAS
Great Otway	National Park	VIC
Greens Beach	Conservation Area	TAS
Greens Beach Rd Greens Beach	Conservation Covenant	TAS
Gulaga	National Park	NSW
Gull Island	Conservation Area	TAS
Harbour Islets	Conservation Area	TAS
Harcus Island	Conservation Area	TAS
Harcus River Rd West Montagu	Conservation Covenant	TAS
Harcus River Road #4	Conservation Covenant	TAS
Harcus River Road Marrawah	Conservation Covenant	TAS
Hastings Bay	Conservation Area	TAS
Heathfield - Whalebone Way	Conservation Covenant	TAS
Hedditch Hill S.R.	Natural Features Reserve	VIC
Henderson Islets	Conservation Area	TAS
Highfield	Historic Site	TAS
Hippolyte Rocks	Marine Conservation Area	TAS
Hoddle Range F.R.	Nature Conservation Reserve	VIC
Hogan Group	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Holts Point	Conservation Area	TAS
Honeysuckle Avenue	Conservation Covenant	TAS
Hopkins Falls S.R.	Natural Features Reserve	VIC
Howie Island	Conservation Area	TAS
Hunter Island	Conservation Area	TAS
Ida Bay	State Reserve	TAS
Ida Bay	Conservation Covenant	TAS
Illawong	Nature Reserve	NSW
Inala	Conservation Covenant	TAS
Inala #2	Conservation Covenant	TAS
Isabella Island	Nature Reserve	TAS
Jack Smith Lake W.R	Natural Features Reserve	VIC
Jacksons Cove	Conservation Area	TAS
Jervis Bay	National Park	NSW
Jervis Bay	Marine Park	NSW
Johanna Falls S.R.	Natural Features Reserve	VIC
Johnstones Creek F.R	Nature Conservation Reserve	VIC
Kangaroo Island	Conservation Area	TAS
Kangerong N.C.R	Natural Features Reserve	VIC
Kentbruck H14 B.R	Natural Features Reserve	VIC
Kentbruck H50 B.R.	Natural Features Reserve	VIC
Kentford Forest	Nature Reserve	TAS
Kentford Forest	Conservation Area	TAS
Kentford Rd Nugara	Conservation Covenant	TAS

Protected Area Name	Reserve Type	State
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Killiecrankie	Nature Recreation Area	TAS
Kings Run	Private Nature Reserve	TAS
Kings Run #2	Conservation Covenant	TAS
Kuhns Rd Memana	Conservation Covenant	TAS
Lackrana	Conservation Area	TAS
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Coleman W.R	Natural Features Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Corringle W.R	Natural Features Reserve	VIC
Lake Curlip W.R.	Natural Features Reserve	VIC
Lake Denison W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Lake Mikany	Conservation Area	TAS
Lake Tyers S.P.	State Park	VIC
Lands End	Conservation Covenant	TAS
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Lees Point	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Leongatha H3 B.R.	Natural Features Reserve	VIC
Leprena Trust - Sullivan Point	Conservation Covenant	TAS
Lighthouse Point	Conservation Area	TAS
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Lime Pit Road	Conservation Area	TAS
Little Chalky Island	Conservation Area	TAS
Little Dog Island	Game Reserve	TAS
Little Green Island	Conservation Area	TAS
Little Island	Conservation Area	TAS
Little Peggs Beach	State Reserve	TAS
Little Silver	Conservation Covenant	TAS
Little Swan Island	Nature Reserve	TAS
Little Trefoil	Conservation Area	TAS
Little Waterhouse Island	Nature Reserve	TAS
Logan Lagoon	Conservation Area	TAS
Logan Lagoon	State Reserve	TAS
Logans Lagoon	Conservation Covenant	TAS
Long Island	Conservation Area	TAS
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lower Glenelg	National Park	VIC
Lower South East	Marine Park	SA
Low Head	Conservation Area	TAS
Low Head	Historic Site	TAS
Low Islets	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Low Point	Conservation Area	TAS
Lughrata	Conservation Covenant	TAS
lungatalanana	Indigenous Protected Area	TAS
Lymwood	Conservation Covenant	TAS
Lyons Cottage	Historic Site	TAS
Macquarie Harbour	Historic Site	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC
Mallacoota B.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Marriott Reef	Conservation Area	TAS
Marshall Beach	Conservation Area	TAS
Meroo	National Park	NSW
Merri	Marine Sanctuary	VIC
Merricks Creek B.R.	Natural Features Reserve	VIC
Mersey Bluff	State Reserve	TAS
Metung B.R.	Natural Features Reserve	VIC
Mile Island	Conservation Area	TAS
Millwood Road	Conservation Covenant	TAS
Mimosa Rocks	National Park	NSW
Montagu Beach	Conservation Area	TAS
Montague Island	Nature Reserve	NSW
Montagu Island	Conservation Area	TAS
Moriarty Rocks	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Morley Swamp G.L.R.	Natural Features Reserve	VIC
Mornington Peninsula	National Park	VIC
Mortimers Paddock B.R.	Natural Features Reserve	VIC
Mount Bruny	Conservation Area	TAS
Mount Chappell Island	Indigenous Protected Area	TAS
Mount Dundas	Regional Reserve	TAS
Mount Heemskirk	Regional Reserve	TAS
Mount Mangana	Conservation Area	TAS
Mount Martha N.C.R.	Natural Features Reserve	VIC
Mount Richmond	National Park	VIC
Mount Tanner	Nature Recreation Area	TAS
Mount Vereker Creek	Natural Catchment Area	VIC
Mount William	National Park	TAS
Mouzie B.R	Natural Features Reserve	VIC
Mouzie N.F.R	Natural Features Reserve	VIC
Muddy Lagoon	Nature Reserve	TAS
Mulligans Hill	Conservation Covenant	TAS
Mulligans Hill	Conservation Area	TAS
Mumbulla	Flora Reserve	NSW
Murkay Islets	Conservation Area	TAS
Murrah	Flora Reserve	NSW
Murramarang	National Park	NSW
Mushroom Reef	Marine Sanctuary	VIC
Musselroe Bay	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Nadgee	Nature Reserve	NSW
Narawntapu	National Park	TAS
Nares Rocks	Conservation Area	TAS
Narrawong F.R.	Nature Conservation Reserve	VIC
Neds Reef	Conservation Area	TAS
New Year Island	Game Reserve	TAS
New Zealand Hill F.R.	Nature Conservation Reserve	VIC
Night Island	Conservation Area	TAS
Ninety Mile Beach	Marine National Park	VIC
Ninth Island	Conservation Area	TAS
Nooramunga Marine & Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
North East Islet	Nature Reserve	TAS
North East River	Game Reserve	TAS
North Western Port N.C.R.	Natural Features Reserve	VIC
Nungurner B.R.	Natural Features Reserve	VIC
Nyerimilang Park G.L.R.	Natural Features Reserve	VIC
Ocean Beach	Conservation Area	TAS
Olivers Creek B.R.	Natural Features Reserve	VIC
Oyster Rocks	Conservation Area	TAS
Painkalac Creek	Reference Area	VIC
Palana Beach	Nature Recreation Area	TAS
Pardoe Northdown	Conservation Area	TAS
Parker River	Reference Area	VIC
Pasco Group	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Passage Island	Conservation Area	TAS
Patriarchs	Conservation Area	TAS
Patriarchs	Private Sanctuary	TAS
Pegarah	Private Nature Reserve	TAS
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Peggs Beach	Conservation Area	TAS
Pelican Island	Conservation Area	TAS
Penguin Islet	Nature Reserve	TAS
Perkins Island	Conservation Area	TAS
Petrel Islands	Game Reserve	TAS
Phillip Island Nature Park	Other	VIC
Pieman River	State Reserve	TAS
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Portarlington (Point Richard) F.F.R.	Nature Conservation Reserve	VIC
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Prime Seal Island	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Rame Head	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Ram Island	Conservation Area	TAS
Raymond Island G.L.R.	Natural Features Reserve	VIC
Rebecca Creek	Conservation Area	TAS
Recherche Bay	Nature Recreation Area	TAS
Recherche Bay Reserve - Southport Lagoon Conservation Covena	Conservation Covenant	TAS
Redbanks Sisters Creek	Conservation Covenant	TAS
Red Hill South B.R.	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reedy Lagoon	Private Nature Reserve	TAS
Reef Island	Conservation Area	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rigby Island G.L.R.	Natural Features Reserve	VIC
Ringarooma Tier - Rushy Lagoon	Conservation Covenant	TAS
Rocky Cape	National Park	TAS
Rodondo Island	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Rosebud B.R.	Natural Features Reserve	VIC
Roydon Island	Conservation Area	TAS
Saintys Creek	Conservation Covenant	TAS
Salt Lagoon, St Leonards W.R	Nature Conservation Reserve	VIC
Salt Lake - Backwater Morass G.L.R.	Natural Features Reserve	VIC
Sandpatch	Wilderness Zone	VIC
Sandridge	Conservation Covenant	TAS
Sartoris Rd Nugara	Conservation Covenant	TAS
Screw Creek N.C.R.	Natural Features Reserve	VIC
Seacrow Islet	Conservation Area	TAS
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Creek	Reference Area	VIC
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	Conservation Area	TAS
Seal Rocks	State Reserve	TAS
Sellars Lagoon	Game Reserve	TAS
Sentinel Island	Conservation Area	TAS
Settlement Point	Conservation Area	TAS
Shag Lagoon	Conservation Area	TAS
Shakespeare Hills	Regional Reserve	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Shell Islets	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Single Tree Plain	Conservation Area	TAS
Sister Islands	Conservation Area	TAS
Sisters Beach	Conservation Covenant	TAS
Sisters Island	Conservation Area	TAS
Slaughterhouse Creek G.L.R	Natural Features Reserve	VIC
Slaves Bay	Conservation Area	TAS
Snowy River	Heritage River	VIC
South Bruny	National Park	TAS
South East Forest	National Park	NSW
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Pats River	Conservation Area	TAS
Southport Lagoon	Conservation Area	TAS
South Rd Nugara	Conservation Covenant	TAS
Southwest	Conservation Area	TAS
Southwest	National Park	TAS
Spike Island	Conservation Area	TAS
Stack Island	Game Reserve	TAS
Stanley	Conservation Area	TAS
Steel Bay - Newland Backwater G.L.R.	Natural Features Reserve	VIC
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Storehouse Island	Conservation Area	TAS
Strahan Customs House	Historic Site	TAS
Strzelecki	National Park	TAS
Sugarloaf Rock	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Summer Camp	Conservation Area	TAS
Sundown Point	State Reserve	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Swan Reach Bay G.L.R.	Natural Features Reserve	VIC
Sydney Cove	Historic Site	TAS
Table Cape	Conservation Area	TAS
Table Cape	State Reserve	TAS
Tambar	Conservation Covenant	TAS
Tambo Delta - Metung G.L.R.	Natural Features Reserve	VIC
Tanja	Flora Reserve	NSW
Tarra Tarra B.R	Natural Features Reserve	VIC
Tarwin Lower F.R.	Nature Conservation Reserve	VIC
Tasman	National Park	TAS
Tathams Lagoon	Conservation Area	TAS
Tatlows Beach	Conservation Area	TAS
Teepookana	Regional Reserve	TAS
Temma	Conservation Covenant	TAS
Tenth Island	Nature Reserve	TAS
The Arches	Marine Sanctuary	VIC
The Dock	Conservation Covenant	TAS
The Doughboys	Nature Reserve	TAS
The Dutchman	Conservation Area	TAS
The Lakes	National Park	VIC
The Nut	State Reserve	TAS
Three Hummock Island	State Reserve	TAS

Protected Area Name	Reserve Type	State
Three Sisters-Goat Island	Nature Reserve	TAS
Tikkawoppa Plateau	Regional Reserve	TAS
Tin Mine Rd Loorana	Conservation Covenant	TAS
Tollgate Islands	Nature Reserve	NSW
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Trial Harbour	State Reserve	TAS
Trousers Point Beach	Conservation Area	TAS
Tully River	Conservation Area	TAS
Twelve Apostles	Marine National Park	VIC
Tyabb B.R.	Natural Features Reserve	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed (Badger Corner)	Conservation Area	TAS
Unnamed (Badger Head Road)	Conservation Area	TAS
Unnamed (Duck Bay)	Conservation Area	TAS
Unnamed C0293	Private Nature Reserve	VIC
Unnamed P0155	Private Nature Reserve	VIC
Unnamed P0176	Private Nature Reserve	VIC
Vansittart Island	Conservation Area	TAS
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Wallaby Islands	Conservation Area	TAS
Waratah B.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Warneet Balaka St B.R.	Natural Features Reserve	VIC
Warneet Iluka St B.R.	Natural Features Reserve	VIC
Warneet N.F.R.	Natural Features Reserve	VIC
Warra Creek	Regional Reserve	TAS
Warrengine Creek SS.R.	Natural Features Reserve	VIC
Waterfall-Fortescue	Marine Conservation Area	TAS
Waterhouse	Conservation Area	TAS
Waterhouse Island	Conservation Area	TAS
Wattle Point G.L.R.	Natural Features Reserve	VIC
Welcome River	State Reserve	TAS
Welshpool H17 B.R	Natural Features Reserve	VIC
West Coast Range	Regional Reserve	TAS
West Inlet	Conservation Area	TAS
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Whalebone Way - Benbullen	Conservation Covenant	TAS
Whalebone Way - Lighthouse Road	Conservation Covenant	TAS
Whipstick Gully N.F.R.	Natural Features Reserve	VIC
White Beach	Conservation Area	TAS
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
William Hunter F.R	Nature Conservation Reserve	VIC

Protected Area Name	Reserve Type	State
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wingaroo	Nature Reserve	TAS
Wongarra B.R.	Natural Features Reserve	VIC
Wonga Wonga South B.R	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Woodside H26 B.R.	Natural Features Reserve	VIC
Woodside H27 B.R	Natural Features Reserve	VIC
Woodside H28 B.R	Natural Features Reserve	VIC
Wright Rock	Nature Reserve	TAS
Wybalenna Island	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Yambacoona	Conservation Covenant	TAS
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC
Yanakie F.R	Nature Conservation Reserve	VIC
Yaringa	Marine National Park	VIC
Youngs Creek	Conservation Area	TAS

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
East Gippsland RFA	Victoria
Eden RFA	New South Wales
Gippsland RFA	Victoria
Southern RFA	New South Wales
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Beecroft Peninsula	NSW
Benedore River	VIC
Blackmans Lagoon	TAS
Bondi Lake	NSW
Boulanger Bay - Robbins Passage	TAS
Bungaree Lagoon	TAS
Clyde River Estuary	NSW

Wetland Name	State
Coila Creek Delta	NSW
Corner Inlet	VIC
Cullendulla Creek and Embayment	NSW
Durras Lake	NSW
Ewing's Marsh (Morass)	VIC
Fergusons Lagoon	TAS
Flyover Lagoon 1	TAS
Flyover Lagoon 2	TAS
Hogans Lagoon	TAS
Jack Smith Lake State Game Reserve	VIC
Jervis Bay	NSW
Jervis Bay Sea Cliffs	NSW
Lake Ashwood	TAS
Lake Bantick	TAS
Lake Bunga	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lake Garcia	TAS
Lake King Wetlands	VIC
Lake Tyers	VIC
Lake Victoria Wetlands	VIC
Lake Wellington Wetlands	VIC
Lavinia Nature Reserve	TAS
Little Thirsty Lagoon	TAS
Little Waterhouse Lake	TAS
Logan Lagoon	TAS
Long Swamp	VIC

Wetland Name	State
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Lower Snowy River Wetlands System	VIC
Mallacoota Inlet Wetlands	VIC
Merimbula Lake	NSW
Moruya River Estuary Saltmarshes	NSW
Mud Islands	VIC
Nadgee Lake and tributary wetlands	NSW
Nargal Lake	NSW
Nelson Lagoon	NSW
Pambula Estuarine Wetlands	NSW
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Rocky Cape Marine Area	TAS
Russells Swamp	VIC
Sellars Lagoon	TAS
Shallow Inlet Marine & Coastal Park	VIC
Snowy River	VIC
South East Cape Lakes	TAS
Stans Lagoon	TAS
St Georges Basin	NSW
Swan Bay & Swan Island	VIC
Swan Lagoon	NSW

Wetland Name	State
Sydenham Inlet Wetlands	VIC
Syndicate Lagoon	TAS
Tamboon Inlet Wetlands	VIC
Tambo River (Lower Reaches) East Swamps	VIC
Thompsons Lagoon	TAS
Thurra River	VIC
Tower Hill	VIC
Tregaron Lagoons 1	TAS
Tregaron Lagoons 2	TAS
Tuross River Estuary	NSW
Twofold Bay	NSW
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Unnamed Wetland	TAS
Waldrons Swamp	NSW
Wallaga Lake	NSW
Wallagoot Lagoon (Wallagoot Lake)	NSW
Werribee-Avalon Area	VIC

Wetland Name	State
Western Port	VIC
Yambuk Wetlands	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Armstrong Creek Aquatic Venue and Multi-sport Community Facility	2023/09553		Referral Decision
Australian Centre for Disease Preparedness Part life Refit	2023/09497		Completed
Bermagui Golf Club Proposed Subdivision (Stages 3-8)	2022/09242		Post-Approval
Broulee Beach Estate residential development subdivision	2023/09551		Referral Decision
Eurobodalla Regional Hospital	2023/09506		Referral Decision
Geelong Hydrogen Hub	2022/09288		Referral Decision
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
North East Wind - construction and operation of wind turbines and associated infrastructure	2022/09388		Assessment
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Residential Development, Groves Road	2022/09357		Assessment
Robbins Island Renewable Energy Park, Robbins Island, Tasmania	2017/8096		Approval
Seadragon Offshore Wind Farm	2022/9163		Assessment
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Spinifex Offshore Surveys	2022/09359		Completed
Vopak Victoria Energy Terminal	2023/09507		Referral Decision
Controlled action			
8 lot subdivision South Bruny Island	2010/5539	Controlled Action	Completed
Alberton Wind Farm, Sth Gippsland, Vic	2017/7854	Controlled Action	Post-Approval
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Basalt Quarry Extension (Mountainview Quarry)	2004/1329	Controlled Action	Completed
Boundary Road Quarry extension, Dromana, Vic	2018/8221	Controlled Action	Assessment Approach
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Construction of a factory for the production of ACV's	2007/3842	Controlled Action	Completed
Construction of NW Homemaker Shopping Centre	2009/4835	Controlled Action	Post-Approval
Crib Point to Pakenham Gas Pipeline, Vic	2018/8297	Controlled Action	Completed
Dairy Farm expansion on the Woolnorth property	2013/6710	Controlled Action	Completed
Develop an Offshore Tidal Energy Facility	2008/4518	Controlled Action	Completed
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Extension of Mountain View basalt quarry by 490 hectares (Stage 2)	2004/1590	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Gas Import Facility, Crib Point, Vic	2018/8298	Controlled Action	Completed
Geelong Salt Fields Urban Renewal Project	2012/6630	Controlled Action	Assessment Approach
Gippsland Lakes Mosquito Control Aerial /Hovercraft Spraying	2001/491	Controlled Action	Completed
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Golden Beach Gas Project	2019/8513	Controlled Action	Post-Approval
Heemskirk Windfarm Development	2002/678	Controlled Action	Completed
Installation of replacement crude-condensate pipeline, Vic	2014/7202	Controlled Action	Post-Approval
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Low Head Wind Farm, TAS	2012/6450	Controlled Action	Post-Approval
Maintenance Dredging of Toora Boat Ramp Channel	2008/4376	Controlled Action	Completed
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Musselroe Wind Farm	2002/683	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Residential Estate, 251-319 Melaluka Rd	2007/3308	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Residential Subdivision and Stormwater Enhancements for land west of Ash Road	2012/6544	Controlled Action	Completed
Residential Subdivision and Town Centre Development, Vincentia	2006/2927	Controlled Action	Post-Approval
Rezoning of land and associated public works to facilitate residential development	2007/3448	Controlled Action	Completed
Robbins Island Road to Hampshire Transmission Line	2020/8656	Controlled Action	Referral Decision
Rural residential subdivision into 13 new allotments	2008/4505	Controlled Action	Post-Approval
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Tarkine Forest Drive Road Upgrade	2011/6210	Controlled Action	Post-Approval
Tasmania Natural Gas Project - Stage 2	2001/211	Controlled Action	Post-Approval
The Tarkine Road Project	2009/5169	Controlled Action	Completed
Thomson River Mercury Recovery Project	2010/5734	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
Upgrade and expansion of existing Yaringa Boat Harbour	2011/6014	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Viva Energy Gas Terminal Project	2020/8838	Controlled Action	Assessment Approach
Warralily - East Precinct Sparrovale Outfall, stormwater bypass channel, Armstrong Creek, Vic	2015/7553	Controlled Action	Post-Approval
Water Pipeline	2010/5327	Controlled Action	Post-Approval
Western Plains wind farm	2010/5712	Controlled Action	Assessment Approach
Western Treatment Plant Environment Improvement Project (post Effluent Reuse Stage 2)	2002/688	Controlled Action	Post-Approval
White Rock Wind Farm	2003/986	Controlled Action	Completed
Windfarm	2003/1109	Controlled Action	Completed
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Wyndham Cove marina and residential development	2004/1331	Controlled Action	Post-Approval
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
55m lattice tower & infrastructure	2003/1159	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Acquistion of 2D seismic data in State Waters adjacent to Ninety Mile Beach-VIC/P39(V)	2004/1889	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Allmans Levee Track - Maintenance Work	2003/1053	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Angas and Galloway Exploration Wells VIC/P39(v)	2005/2330	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Aquacullture facility for rainbow trout and yabbies and recreational facilities	2002/822	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Barwon River Parkland Initiative, Taits Point, Stages 1 and 2	2010/5437	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Field Development	2007/3402	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Bass Basin - Pee Jay-1 - Drilling Program	2007/3908	Not Controlled Action	Completed
Bass Hwy upgrade - Sisters Hills midway between Wynyard and Smithton	2006/3007	Not Controlled Action	Completed
Batemans Bay Marina Redevelopment	2008/4265	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
Caswell Street - Moruya East	2020/8781	Not Controlled Action	Completed
Clearance of native vegetation to create fire breaks	2004/1534	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of 165 Megalitre Dam at "Boobyalla Park"	2004/1428	Not Controlled Action	Completed
Construction of a Dwelling	2011/6160	Not Controlled Action	Completed
Construction of a flexi mat boat ramp	2011/5838	Not Controlled Action	Completed
Construction of an ocean access boat ramp at Bastion Point	2004/1407	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of distributor road Leeds Parade to Escort Way	2004/1379	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Conversion of the North Western Victoria rail system from broad gauge to standar	2002/657	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Cunninghame Arm Redevelopment (Stage 3)	2002/618	Not Controlled Action	Completed
d'Entrecasteaux sites in Tasmania	2006/2618	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
development of retirement resort	2004/1828	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Dial Blythe Irrigation Scheme, north-west Tasmania	2013/7058	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
DOFA weed eradication program at Goorooyaroo NSW	2003/1270	Not Controlled Action	Completed
Dredging of Tuross Lake channel and depositon of spoil in lake	2004/1554	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
Duck Irrigation System, north-west coast Tasmania	2016/7778	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Eco-Tourism Development	2001/442	Not Controlled Action	Completed
Ecotourism Facility	2007/3322	Not Controlled Action	Completed
Eden Wind Farm	2011/6037	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Erosion Trials - planting and pile program of >300 mangroves	2006/2856	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Expansion and upgrade of Biogas Utilisation Facilities at the Western Treatment	2005/2183	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Extension of Mountain View basalt quarry by 113 hectares (stage one)	2004/1591	Not Controlled Action	Completed
Fabrication and Spooling of Pipe Strings at Crib Point	2008/4127	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Floating Observation Platform, Tooradin Channel	2006/2766	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed
George Bass Drive Lilli Pilli Road Realignment	2021/8876	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Gippsland Lakes Composting Toilet Program	2000/66	Not Controlled Action	Completed
Golf Course Extension	2001/215	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hayes Hill Ridge Wind Farm	2007/3437	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Illuka Residential Estate	2007/3224	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 3.5kW Wind Turbine	2012/6604	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Kipper Tuna Turrum Project Maintenance Dredging	2010/5430	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance dredging of Yaringa Channel	2004/1360	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Milton/Ulladulla Sewerage Scheme	2001/251	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Mixed use residential development (Camdale Development)	2006/2634	Not Controlled Action	Completed
Multi-species Aquaculture Enterprise	2001/404	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Oceanlinx South Australia 1mW Greenwave Project	2012/6528	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Offshore Seismic Survey	2001/498	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Pioneer Road and bridge Duplication	2012/6291	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Pipeline easement regrowth removal	2011/5817	Not Controlled Action	Completed
Point Cooke Coastal Trail	2001/324	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Latta Wind Farm, Tas	2018/8249	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Port Welshpool Harbour Dredging	2007/3521	Not Controlled Action	Completed
Power Station	2001/239	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Pump station upgrades and rising main construction, Lakes Entrance, Victoria	2016/7646	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Re-alignment of Breakwater Road	2006/2762	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Regional Fast Rail Project - Geelong Country Works Package	2002/577	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Remote power generation project	2005/2287	Not Controlled Action	Completed
Removal of Strzelecki Gum as part of the Regional Fast Rail Project	2006/2936	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Development, 409 The Esplanade, St Leonards	2006/2950	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Restricted Recreation Facility - soccer pich, stadium and associated parking	2006/3034	Not Controlled Action	Completed
Rotary peeled veneer mill and timber merchandising yard	2002/564	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Saline Recharge of meromictic Lake Fidler	2004/1334	Not Controlled Action	Completed
Ship to Ship Crude Oil Lightering	2001/271	Not Controlled Action	Completed
Simpsons Point Residential Development, Eco-Tourism Facility & Conservation Rese	2005/1959	Not Controlled Action	Completed
Sludge handling and biosolids management - Western Treatment Plant	2006/2620	Not Controlled Action	Completed
Sole-2 appraisal gas well, VIC/RL3	2002/636	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Sparrovale Wetland stormwater management, Armstrong Creek and Charlemont, VIC	2018/8375	Not Controlled Action	Completed
Spikey Beach 1, West Triton Drilling Program, Bass Basin Permit T/38P	2007/3914	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Subdivision for Residential development	2004/1823	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
Tenby Point Sewerage Pipeline	2001/406	Not Controlled Action	Completed
The 3000 Acres, clearing and development of native vegetation	2006/3199	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
To undertake maintenance dredging of the Toora Boat Ramp Channel, VIC	2014/7225	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Upgrade of existing access track	2011/5933	Not Controlled Action	Completed
Upgrade of the existing Thornhill St Sewer Pump Station	2010/5618	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Wastewater Treatment System Upgrade	2004/1420	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Wood Processing and Metallurgical Carbon Facility	2001/478	Not Controlled Action	Completed
Wooralla Drive pump station, pipeline and associated works	2005/2450	Not Controlled Action	Completed
Wreck Bay Housing Development	2001/299	Not Controlled Action	Completed
WTP 115E Lagoon Seawall, Western Treatment Plant WTP, Werribee Victoria	2019/8577	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D & 3D seismic survey T/39P	2005/2237	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey, EPP33	2004/1794	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Aquisition Survey	2008/4041	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		(Particular Manner)	
2D Seismic Survey	2008/4131	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey Permit Area VIC/P49	2006/2943	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey Program in Bass Strait	2008/4040	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
2D Siesmic Marine Survey	2008/4074	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
3D Seismic Survey	2008/4528	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Road Settlement Road to Reserve Road Duplication Project	2020/8737	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Bitumen Storage Facility	2007/3676	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
Church and School Development	2006/3185	Not Controlled Action (Particular Manner)	Post-Approval
Collection of cast bull kelp	2002/813	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construction of Stormwater Harvesting Dam, Anakie Road, Lovely Banks VIC	2009/5001	Not Controlled Action (Particular Manner)	Post-Approval
Construction of wharf	2003/1050	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Corio Bay Channel Safety Adjustment Program	2011/6208	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
Development of Commercial Shellfish Aquaculture Leases within Jervis Bay	2013/6768	Not Controlled Action (Particular Manner)	Post-Approval
development of retirement village, Bellarine Lakes Golf Course, Bellarine Hwy	2006/3015	Not Controlled Action (Particular Manner)	Post-Approval
DIDR01 Wetlands, Barwon Heads Road, Armstrong Creek	2020/8835	Not Controlled Action (Particular Manner)	Post-Approval
Drainage, Trenching & Cable Laying as Part of the Regional Fast Rail Project	2003/1133	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf extension, NSW	2015/7582	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf Extension, NSW	2016/7828	Not Controlled Action (Particular Manner)	Completed
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
extension of a sporting facility and upgrading of associated infrastructure	2004/1325	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Granville Wind Farm, TAS	2012/6585	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Installation of a 17x6m floating pontoon adjacent to existing boat ramp	2009/4842	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Entrance Sand Management Program Trial Dredging	2007/3852	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Entrance Sand Management Program Trial Dredging	2007/3694	Not Controlled Action (Particular Manner)	Completed
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness PT 2	2006/3044	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness WHA	2004/1846	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance dredging of 150,000 cubic metres of sediment in Burnie Port and du	2004/1569	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging of Oceanic Sand	2011/5932	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program	2009/4953	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Marine Farming Expansion, Macquarie Harbour, TAS	2012/6406	Not Controlled Action (Particular Manner)	Post-Approval
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular Manner)	Post-Approval
Point Wilson Explosives Area Waterside Infrastructure Remediation	2012/6376	Not Controlled Action (Particular Manner)	Post-Approval
Rail Upgrades at Geelong Port Project	2010/5363	Not Controlled Action (Particular Manner)	Post-Approval
Regional Fibre Optic Project (RFOP)	2003/913	Not Controlled Action (Particular Manner)	Post-Approval
Removal of Tasmanian blue gums	2004/1356	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Remove silt build up on existing swales around the perimeter of the Three Hummo	2010/5676	Not Controlled Action (Particular Manner)	Post-Approval
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
Scottsdale Irrigation Scheme (SIS) - Tasmania	2017/7981	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey in Petroleum Permit Area EPP27	2002/648	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval
Soil and Organic Recycling Facility	2005/2216	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
supersonic missile launch facility	2000/120	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Three Capes Track	2011/6200	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Upgrade of Arthur River Road	2003/930	Not Controlled Action (Particular Manner)	Post-Approval
Vegetation clearance and residential subdivision near Mt Gambier	2004/1370	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Waterfront Facility at HMAS Creswell	2002/658	Not Controlled Action (Particular Manner)	Post-Approval
West Seahorse Oil Development Project, Commonwealth waters offshore Victoria	2013/6973	Not Controlled Action (Particular Manner)	Post-Approval
Wilson's Creek Bridge Replacement, Bass Highway	2007/3892	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
2D Seismic Survey	2008/3978	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed
Beecroft Weapons Range Visitors Centre	2004/1322	Referral Decision	Completed
Breeding program for Grey Nurse Sharks	2007/3245	Referral Decision	Completed
Creamery Road PSP Area Geelong West Property Development	2021/8939	Referral Decision	Referral Publication
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed
Enlargement of existing farm dam to irrigate a vineyard	2004/1853	Referral Decision	Completed
Holloman 2010 Vic/P60 3D Seismic Acquisition Survey Program	2009/5251	Referral Decision	Completed
Kelly Channel Discharge, Macquarie Harbour, Tasmania	2017/8057	Referral Decision	Completed
Land clearing for stock grazing	2005/2176	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Mineral Exploration Ringarooma Bay	2012/6508	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Stanton 3D Marine Seismic Survey	2013/6764	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Corringle Road	2009/4825	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wind Farm	2001/139	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Big Horseshoe Canyon	South-east
Bonney Coast Upwelling	South-east
Canyons on the eastern continental slope	Temperate east
Seamounts South and east of Tasmania	South-east
Shelf rocky reefs	Temperate east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus		
Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur

Scientific Name	Behaviour	Presence
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Known to occur
Seabirds		
Ardenna carneipes Flesh-footed Shearwater [82404]	Foraging	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Breeding	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Likely to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Likely to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Likely to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur

Scientific Name	Behaviour	Presence
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Macronectes giganteus Southern Giant Petrel [1060]	Foraging	Known to occur
Macronectes halli Northern Giant Petrel [1061]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Oceanites oceanites Wilsons Storm Petrel [1034]	Migration	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Likely to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Procellaria parkinsoni Black Petrel [1048]	Foraging	Likely to occur
Pterodroma macroptera Great-winged Petrel [1035]	Foraging	Likely to occur

Scientific Name	Behaviour	Presence
Pterodroma mollis Soft-plumaged Petrel [1036]	Breeding	Known to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Sterna striata White-fronted Tern [799]	Breeding	Known to occur
Sterna striata White-fronted Tern [799]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche cauta steadi White-capped Albatross [82344]	Foraging	Known to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging likely	Likely to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Likely to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Thalasseus bergii Crested Tern [83000]	Breeding	Known to occur

Scientific Name	Behaviour	Presence
Thalasseus bergii Crested Tern [83000]	Foraging	Likely to occur
Seals		
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Known to occur
Sharks		
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur

Scientific Name	Behaviour	Presence
Megaptera novaeangliae		
Humpback Whale [38]	Foraging	Known to occur

Bioregional Assessments

SubRegion	BioRegion	Website
Sydney	Sydney Basin	BA website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements

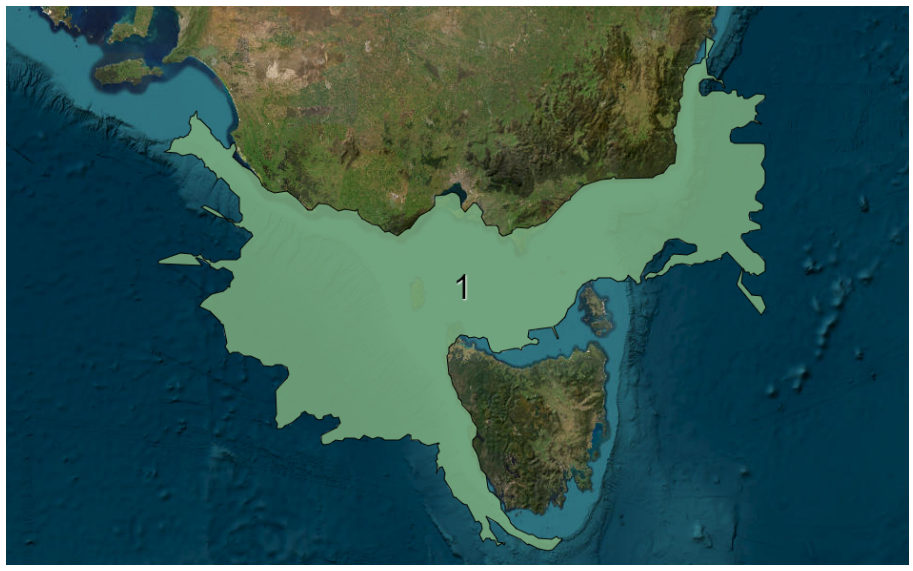


Figure: Permit VIC/P79 South LOWC (low threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	1
National Heritage Places:	5
Wetlands of International Importance (Ramsar	8
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	24
Listed Threatened Species:	214
Listed Migratory Species:	92

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	120
Commonwealth Heritage Places:	19
Listed Marine Species:	149
Whales and Other Cetaceans:	33
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	2
Australian Marine Parks:	16
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	392
Regional Forest Agreements:	6
Nationally Important Wetlands:	66
EPBC Act Referrals:	423
Key Ecological Features (Marine):	7
Biologically Important Areas:	57
Bioregional Assessments:	2
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Legal Status
Tasmanian Wilderness	TAS	Declared property

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place
Natural		
Tasmanian Wilderness	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Edithvale-seaford wetlands	Within 10km of Ramsar site
Gippsland lakes	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Piccaninnie ponds karst wetlands	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name

Feature Name
EEZ and Territorial Sea
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Alpine Sphagnum Bogs and Associated Fens	Endangered	Community may occur within area
Araluen Scarp Grassy Forest	Endangered	Community may occur within area
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Brogo Vine Forest of the South East Corner Bioregion	Endangered	Community likely to occur within area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Gippsland Red Gum (Eucalyptus tereticornis subsp. mediana) Grassy Woodland and Associated Native Grassland	Critically Endangered	Community likely to occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Illawarra and south coast lowland forest and woodland ecological community	Critically Endangered	Community likely to occur within area
Illawarra-Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community likely to occur within area

Community Name	Threatened Category	Presence Text
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area
Lowland Grassy Woodland in the South East Corner Bioregion	Critically Endangered	Community likely to occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the South Eastern Highlands	Critically Endangered	Community may occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
null		
Mordacia praecox		
Non-parasitic Lamprey, Precocious Lamprey [81530]	Endangered	Species or species habitat likely to occur within area
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Acanthornis magna greeniana King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Foraging, feeding or related behaviour known to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Breeding known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Breeding known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat known to occur within area
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat known to occur within area
FISH		
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area
Hippocampus whitei		
White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Nannoperca variegata		
Variegated Pygmy Perch, Ewens Pygmy Perch, Golden Pygmy Perch [26178]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
Thymichthys politus		
Red Handfish [83756]	Critically Endangered	Species or species habitat may occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat known to occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Litoria watsoni Watson's Tree Frog [91509]	Endangered	Species or species habitat known to occur within area
Mixophyes balbus Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat known to occur within area
INSECT		
Oreisplanus munionga larana Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana Golden Sun Moth [25234]	Vulnerable	Species or species habitat likely to occur within area
MAMMAL		
Antechinus minimus maritimus Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Dasyurus maculatus maculatus (Tasmanian population)		
Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus		
Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii		
Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii		
Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat known to occur within area
Perameles gunnii Victorian subspecies		
Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Potorous longipes Long-footed Potoroo [217]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat likely to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
Pseudomys shortridgei Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Sarcophilus harrisii Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
OTHER		
Dendronephthya australis Cauliflower Soft Coral [90325]	Endangered	Species or species habitat likely to occur within area
Hyridella glenelgensis Glenelg Freshwater Mussel [82953]	Critically Endangered	Species or species habitat may occur within area
Megascolides australis Giant Gippsland Earthworm [64420]	Vulnerable	Species or species habitat may occur within area
PLANT		
Acacia caerulescens Limestone Blue Wattle, Buchan Blue, Buchan Blue Wattle [21883]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Acacia constablei Narrabarba Wattle [10798]	Critically Endangered	Species or species habitat known to occur within area
Acacia georgensis Bega Wattle [9848]	Vulnerable	Species or species habitat known to occur within area
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
Astrotricha crassifolia Thick-leaf Star-hair [10352]	Vulnerable	Species or species habitat may occur within area
Banksia vincentia [88276]	Critically Endangered	Species or species habitat likely to occur within area
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
Caladenia caudata Tailed Spider-orchid [17067]	Vulnerable	Species or species habitat may occur within area
Caladenia colorata Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat known to occur within area
Caladenia dienema Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat known to occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat known to occur within area
Caladenia pumila Dwarf Spider-orchid [4155]	Critically Endangered	Species or species habitat likely to occur within area
Caladenia richardsiorum Little Dip Spider-orchid [55018]	Endangered	Species or species habitat likely to occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat may occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat likely to occur within area
Centrolepis pedderensis Pedder Centrolepis, Pedder Bristlewort [12647]	Endangered	Species or species habitat likely to occur within area
Commersonia prostrata Dwarf Kerrawang [87152]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Correa baeuerlenii Chef's Cap [17007]	Vulnerable	Species or species habitat known to occur within area
Correa lawrenceana var. genoensis Genoa River Correa [66626]	Endangered	Species or species habitat may occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat known to occur within area
Corunastylis rhyolitica listed as Genoplesium rhyoliticum Pambula Midge-orchid, Rhyolite Midge Orchid [78697]	Endangered	Species or species habitat likely to occur within area
Corunastylis vernalis listed as Genoplesium vernale East Lynne Midge-orchid [78699]	Vulnerable	Species or species habitat known to occur within area
Craspedia preminghana Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat known to occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat may occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area
Diuris basaltica Small Golden Moths Orchid, Early Golden Moths [64654]	Endangered	Species or species habitat may occur within area
Diuris lanceolata Snake Orchid [10231]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat known to occur within area
Eucalyptus strzeleckii Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Genoplesium baueri Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid [7528]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat known to occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Leionema ralstonii [64926]	Vulnerable	Species or species habitat known to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat likely to occur within area
Melaleuca biconvexa Biconvex Paperbark [5583]	Vulnerable	Species or species habitat may occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat known to occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat known to occur within area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area
Pomaderris cotoneaster Cotoneaster Pomaderris [2043]	Endangered	Species or species habitat may occur within area
Pomaderris halmaturina subsp. halmaturina Kangaroo Island Pomaderris [21964]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Pomaderris parrisiae Parris' Pomaderris [22119]	Vulnerable	Species or species habitat known to occur within area
Prasophyllum affine Jervis Bay Leek Orchid, Culburra Leek-orchid, Kinghorn Point Leek-orchid [2210]	Endangered	Species or species habitat known to occur within area
Prasophyllum atratum Three Hummock Leek-orchid [82677]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Prostanthera densa Villous Mintbush [12233]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Prostanthera galbraithiae Wellington Mintbush [64959]	Vulnerable	Species or species habitat known to occur within area
Pseudocephalozia paludicola Alpine Leafy Liverwort [66441]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area
Pterostylis rubenachii Arthur River Greenhood [64536]	Endangered	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat known to occur within area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat likely to occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat likely to occur within area
Taraxacum cygnorum Coast Dandelion, Native Dandelion [2508]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat known to occur within area
Westringia davidii [19079]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
Zieria tuberculata Warty Zieria [56736]	Vulnerable	Species or species habitat known to occur within area
REPTILE		

Scientific Name	Threatened Category	Presence Text
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Hoplocephalus bungaroides Broad-headed Snake [1182]	Vulnerable	Species or species habitat may occur within area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Tympanocryptis pinguicolla Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		
Carcharias taurus (east coast population) Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Centrophorus harrissoni Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area
Centrophorus uyato listed as Centrophorus zeehaani Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Zearaja maugeana Maugean Skate, Port Davey Skate [83504]	Endangered	Species or species habitat known to occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica Wedge-tailed Shearwater [84292]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Ardenna tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat likely to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata		
Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus		
Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Dugong dugon Dugong [28]		Species or species habitat may occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Natator depressus](#) Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat likely to occur within area
[Physeter macrocephalus](#) Sperm Whale [59]		Species or species habitat may occur within area
[Rhincodon typus](#) Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
[Cuculus optatus](#) Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat known to occur within area
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat known to occur within area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat known to occur within area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Breeding known to occur within area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Symposiachrus trivirgatus as Monarcha trivirgatus](#) Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting known to occur within area
[Calidris alba](#) Sanderling [875]		Roosting known to occur within area
[Calidris canutus](#) Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat known to occur within area
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area
[Calidris subminuta](#) Long-toed Stint [861]		Roosting known to occur within area
[Calidris tenuirostris](#) Great Knot [862]	Critically Endangered	Roosting known to occur within area
[Charadrius bicinctus](#) Double-banded Plover [895]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
[Phalaropus lobatus](#) Red-necked Phalarope [838]		Roosting known to occur within area
[Philomachus pugnax](#) Ruff (Reeve) [850]		Roosting known to occur within area
[Pluvialis fulva](#) Pacific Golden Plover [25545]		Roosting known to occur within area
[Pluvialis squatarola](#) Grey Plover [865]		Roosting known to occur within area
[Thalasseus bergii](#) Greater Crested Tern [83000]		Breeding known to occur within area
[Tringa brevipes](#) Grey-tailed Tattler [851]		Roosting known to occur within area
[Tringa glareola](#) Wood Sandpiper [829]		Roosting known to occur within area
[Tringa incana](#) Wandering Tattler [831]		Roosting known to occur within area
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
[Xenus cinereus](#) Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Communications, Information Technology and the Arts - Australian Postal Corporation	

Commonwealth Land Name	State
Commonwealth Land - Australian Postal Commission [12052]	NSW
Communications, Information Technology and the Arts - Telstra Corporation Limited	
Commonwealth Land - Australian Telecommunications Commission [12053]	NSW
Commonwealth Land - Australian Telecommunications Commission [12265]	NSW
Commonwealth Land - Australian Telecommunications Commission [15461]	NSW
Commonwealth Land - Australian Telecommunications Commission [12014]	NSW
Commonwealth Land - Australian Telecommunications Commission [15430]	NSW
Commonwealth Land - Australian Telecommunications Commission [15535]	NSW
Commonwealth Land - Australian Telecommunications Commission [16089]	NSW
Commonwealth Land - Australian Telecommunications Commission [12050]	NSW
Commonwealth Land - Australian Telecommunications Commission [15611]	NSW
Commonwealth Land - Telstra Corporation Limited [12051]	NSW
Commonwealth Land - Telstra Corporation Limited [15888]	NSW
Defence	
Defence - AIRTC GEELONG [21354]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - DUTSON BOMBING RANGE [20037]	VIC
Defence - DUTSON BOMBING RANGE [20035]	VIC
Defence - DUTSON BOMBING RANGE [20036]	VIC
Defence - DUTSON BOMBING RANGE [20033]	VIC
Defence - DUTSON BOMBING RANGE [20038]	VIC

Commonwealth Land Name	State
Defence - DUTSON BOMBING RANGE [20061]	VIC
Defence - DUTSON BOMBING RANGE [20062]	VIC
Defence - DUTSON BOMBING RANGE [20034]	VIC
Defence - HMAS CERBERUS [20084]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - HMAS CERBERUS [20098]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - HMAS CERBERUS [20080]	VIC
Defence - HMAS CERBERUS [20083]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20082]	VIC
Defence - Myers Street (opp. Geelong Hospital) [20450]	VIC
Defence - POINT WILSON EXPLOSIVES AREA [21441]	VIC
Defence - POINT WILSON EXPLOSIVES AREA [21442]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC

Commonwealth Land Name	State
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Environment and Heritage	
Commonwealth Land - Booderee National Park [91002]	JBT
Commonwealth Land - Booderee National Park [91005]	JBT
Commonwealth Land - Booderee National Park [91001]	JBT
Commonwealth Land - Booderee National Park [91003]	JBT
Commonwealth Land - Booderee National Park [91004]	JBT
Transport and Regional Services - Australian Maritime Safety Authority	
Commonwealth Land - Australian Maritime Safety Authority [41288]	SA
Commonwealth Land - Australian Maritime Safety Authority [41215]	SA
Commonwealth Land - Australian Maritime Safety Authority [41289]	SA
Unknown	
Commonwealth Land - [21488]	VIC
Commonwealth Land - [21507]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [21508]	VIC
Commonwealth Land - [22390]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [12046]	NSW
Commonwealth Land - [12047]	NSW
Commonwealth Land - [12045]	NSW
Commonwealth Land - [21496]	VIC
Commonwealth Land - [21491]	VIC

Commonwealth Land Name	State
Commonwealth Land - [21498]	VIC
Commonwealth Land - [21492]	VIC
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [21570]	VIC
Commonwealth Land - [21497]	VIC
Commonwealth Land - [60113]	TAS
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [60116]	TAS
Commonwealth Land - [60112]	TAS
Commonwealth Land - [60346]	TAS
Commonwealth Land - [21589]	VIC
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21582]	VIC
Commonwealth Land - [21591]	VIC
Commonwealth Land - [60111]	TAS
Commonwealth Land - [21590]	VIC

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Cape Northumberland Lighthouse	SA	Listed place
Cape Sorell Lighthouse	TAS	Listed place
Cape St George Lighthouse Ruins & Curtilage	ACT	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place
Gabo Island Lighthouse	VIC	Listed place

Name	State	Status
HMAS Cerberus Central Area Group	VIC	Listed place
Jervis Bay Botanic Gardens	ACT	Listed place
Montague Island Lighthouse	NSW	Listed place
Royal Australian Naval College	ACT	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Table Cape Lighthouse	TAS	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Indigenous		
Jervis Bay Territory	ACT	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Point Wilson Defence Natural Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place
Tasmanian Seamounts Area	EXT	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica as Puffinus pacificus Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Breeding likely to occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Calidris subminuta Long-toed Stint [861]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat likely to occur within area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis gibsoni as Diomedea gibsoni		
Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor		
Little Penguin [1085]		Breeding known to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala		
Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura		
Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea		
Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus		
Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat known to occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Foraging, feeding or related behaviour known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Breeding likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Stiltia isabella Australian Pratincole [818]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Symposiachrus trivirgatus as Monarcha trivirgatus		
Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii		
Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes		
Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola		
Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura australe		
Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Acentronura tentaculata](#) Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area
[Campichthys tryoni](#) Tryon's Pipefish [66193]		Species or species habitat may occur within area
[Cosmocampus howensis](#) Lord Howe Pipefish [66208]		Species or species habitat may occur within area
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
[Hippocampus abdominalis](#) Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
[Hippocampus minotaur](#) Bullneck Seahorse [66705]		Species or species habitat may occur within area
[Hippocampus whitei](#) White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat known to occur within area
[Histiogamphelus briggsii](#) Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
[Hypselognathus rostratus](#) Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
[Vanacampus phillipi](#) Port Phillip Pipefish [66284]		Species or species habitat may occur within area
[Vanacampus poecilolaemus](#) Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
[Vanacampus vercoi](#) Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammal		
[Arctocephalus forsteri](#) Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
[Arctocephalus pusillus](#) Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
[Dugong dugon](#) Dugong [28]		Species or species habitat may occur within area
[Neophoca cinerea](#) Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Whales and Other Cetaceans [Resource Information]

Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
[Caperea marginata](#) Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area
[Globicephala macrorhynchus](#) Short-finned Pilot Whale [62]		Species or species habitat may occur within area
[Globicephala melas](#) Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
[Hyperoodon planifrons](#) Southern Bottlenose Whale [71]		Species or species habitat may occur within area
[Kogia breviceps](#) Pygmy Sperm Whale [57]		Species or species habitat may occur within area
[Kogia sima](#) Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat likely to occur within area
[Lissodelphis peronii](#) Southern Right Whale Dolphin [44]		Species or species habitat may occur within area

Current Scientific Name	Status	Type of Presence
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon ginkgodens Gingko-toothed Beaked Whale, Gingko-toothed Whale, Gingko Beaked Whale [59564]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Species or species habitat may occur within area
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats [Resource Information]

Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Commonwealth Reserves Terrestrial [Resource Information]

Name	State	Type
Booderee	JBT	Botanic Gardens (Commonwealth)
Booderee	JBT	National Park (Commonwealth)

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories
Huon	Habitat Protection Zone (IUCN IV)
Flinders	Marine National Park Zone (IUCN II)
Tasman Fracture	Marine National Park Zone (IUCN II)
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
East Gippsland	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)

Park Name	Zone & IUCN Categories
Huon	Multiple Use Zone (IUCN VI)
Murray	Multiple Use Zone (IUCN VI)
Tasman Fracture	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Murray	Special Purpose Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)
Jervis	Special Purpose Zone (Trawl) (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Agnes Falls S.R.	Natural Features Reserve	VIC
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Arthur River Rd Marrawah	Conservation Covenant	TAS
Arthurs Seat	State Park	VIC
Baawang	Reference Area	VIC
Badger Box Creek	Nature Reserve	TAS
Badger River	Regional Reserve	TAS

Protected Area Name	Reserve Type	State
Balcombe Creek B.R.	Natural Features Reserve	VIC
Bald Hill N.C.R	Natural Features Reserve	VIC
Bald Hills B.R.	Natural Features Reserve	VIC
Balnarring G95 B.R.	Natural Features Reserve	VIC
Bancroft Bay - Kalimna G.L.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass Pyramid	Nature Reserve	TAS
Bass River SS.R.	Natural Features Reserve	VIC
Batemans	Marine Park	NSW
Bats Ridge W.R	Nature Conservation Reserve	VIC
Baxter Island G.L.R.	Natural Features Reserve	VIC
Bay of Islands Coastal Park	Conservation Park	VIC
Bellarine I109 B.R.	Natural Features Reserve	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Bell Bird Creek	Nature Reserve	NSW
Bemm, Goolengook, Arte and Errinundra Rivers	Heritage River	VIC
Ben Boyd	National Park	NSW
Benedore River	Reference Area	VIC
Bennison F.F.R.	Nature Conservation Reserve	VIC
Bermaguee	Nature Reserve	NSW
Bermagui	Flora Reserve	NSW

Protected Area Name	Reserve Type	State
Beware Reef	Marine Sanctuary	VIC
Biamanga	National Park	NSW
Bird Island	Game Reserve	TAS
Bittern B.R.	Natural Features Reserve	VIC
Black Pyramid Rock	Nature Reserve	TAS
Blond Bay G.L.R.	Natural Features Reserve	VIC
Blond Bay W.R.	Natural Features Reserve	VIC
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Bournda	National Park	NSW
Bournda	Nature Reserve	NSW
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Brick Islands	Conservation Area	TAS
Brodribb River F.F.R	Nature Conservation Reserve	VIC
Broulee Island	Nature Reserve	NSW
Buckley N.C.R.	Natural Features Reserve	VIC
Bucks Lake	Game Reserve	SA
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Cabbage Tree Creek F.R	Nature Conservation Reserve	VIC
Calder River	Reference Area	VIC

Protected Area Name	Reserve Type	State
Calm Bay	State Reserve	TAS
Canunda	National Park	SA
Cape Conran Coastal Park	Conservation Park	VIC
Cape Howe	Wilderness Zone	VIC
Cape Howe	Marine National Park	VIC
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Sorell	Historic Site	TAS
Cape Wickham	Conservation Area	TAS
Cape Wickham	State Reserve	TAS
Carpenter Rocks	Conservation Park	SA
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS
Clyde River	National Park	NSW
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corinella Cemetery B.R.	Natural Features Reserve	VIC
Corner Inlet	Marine National Park	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC

Protected Area Name	Reserve Type	State
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Craggy Island	Conservation Area	TAS
Crib Point G228 B.R.	Natural Features Reserve	VIC
Crib Point G229 B.R.	Natural Features Reserve	VIC
Croajingolong	National Park	VIC
Cullendulla Creek	Nature Reserve	NSW
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Darriman H29 B.R	Natural Features Reserve	VIC
Deen Maar	Indigenous Protected Area	VIC
Deep Lagoons	Conservation Area	TAS
Devilbend N.F.R.	Natural Features Reserve	VIC
Devils Tower	Nature Reserve	TAS
Dingley Dell	Conservation Park	SA
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Double Creek	Natural Catchment Area	VIC
Douglas Point	Conservation Park	SA
Drakes B.R.	Natural Features Reserve	VIC
Dromana B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Drumdlemara H1 B.R	Natural Features Reserve	VIC
Drumdlemara H2 B.R	Natural Features Reserve	VIC
Drumdlemara H4 B.R	Natural Features Reserve	VIC
Dry Creek	Forest Reserve	SA
Eagle Rock	Marine Sanctuary	VIC
Eagles Claw	Nature Reserve	NSW
East Gippsland Coastal streams	Natural Catchment Area	VIC
East Moncoeur Island	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Entrance Point	Reference Area	VIC
Eurobodalla	National Park	NSW
Ewens Ponds	Conservation Park	SA
Ewing Morass W.R	Natural Features Reserve	VIC
Fingal B.R	Natural Features Reserve	VIC
First and Second Islands F.R.	Nature Conservation Reserve	VIC
Flannagan Island G.L.R.	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Fossil Beach G.R.	Natural Features Reserve	VIC
Four Mile Beach	Regional Reserve	TAS
Franklin River SS.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Fraser Island G.L.R.	Natural Features Reserve	VIC
French Island	National Park	VIC
French Island	Marine National Park	VIC
French Island (east)	Reference Area	VIC
French Island (north)	Reference Area	VIC
French Island G230 B.R	Natural Features Reserve	VIC
Fresh-water Swamp, Woodside Beach W.R	Natural Features Reserve	VIC
Gentle Annie	Conservation Area	TAS
Giffard H31 B.R	Natural Features Reserve	VIC
Gippsland Lakes Coastal Park	Conservation Park	VIC
Glenelg River	Heritage River	VIC
Goose Lagoon W.R	Natural Features Reserve	VIC
Gorae B.R.	Natural Features Reserve	VIC
Grantville N.C.R	Natural Features Reserve	VIC
Great Otway	National Park	VIC
Gulaga	National Park	NSW
Harbour Islets	Conservation Area	TAS
Harcus Island	Conservation Area	TAS
Harcus River Rd West Montagu	Conservation Covenant	TAS
Harcus River Road #4	Conservation Covenant	TAS
Harcus River Road Marrawah	Conservation Covenant	TAS
Hedditch Hill S.R.	Natural Features Reserve	VIC
Henderson Islets	Conservation Area	TAS
Hoddle Range F.R.	Nature Conservation Reserve	VIC

Protected Area Name	Reserve Type	State
Hogan Group	Conservation Area	TAS
Hopkins Falls S.R.	Natural Features Reserve	VIC
Hunter Island	Conservation Area	TAS
Illawong	Nature Reserve	NSW
Jack Smith Lake W.R	Natural Features Reserve	VIC
Jervis Bay	National Park	NSW
Jervis Bay	Marine Park	NSW
Johanna Falls S.R.	Natural Features Reserve	VIC
Johnstones Creek F.R	Nature Conservation Reserve	VIC
Kangaroo Island	Conservation Area	TAS
Kangerong N.C.R	Natural Features Reserve	VIC
Kentbruck H14 B.R	Natural Features Reserve	VIC
Kentbruck H50 B.R.	Natural Features Reserve	VIC
Kentford Forest	Conservation Area	TAS
Kentford Forest	Nature Reserve	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Kings Run	Private Nature Reserve	TAS
Kings Run #2	Conservation Covenant	TAS
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Coleman W.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Corringle W.R	Natural Features Reserve	VIC
Lake Curlip W.R.	Natural Features Reserve	VIC
Lake Denison W.R	Natural Features Reserve	VIC
Lake Gillear W.R	Natural Features Reserve	VIC
Lake Robe	Game Reserve	SA
Lake Tyers S.P.	State Park	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Leongatha H3 B.R.	Natural Features Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Little Dip	Conservation Park	SA
Little Trefoil	Conservation Area	TAS
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lower Glenelg	National Park	VIC
Lower Glenelg River	Conservation Park	SA
Lower South East	Marine Park	SA
Lymwood	Conservation Covenant	TAS
Macquarie Harbour	Historic Site	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Mallacoota B.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC
Merri	Marine Sanctuary	VIC
Merricks Creek B.R.	Natural Features Reserve	VIC
Metung B.R.	Natural Features Reserve	VIC
Millwood Road	Conservation Covenant	TAS
Mimosa Rocks	National Park	NSW
Montague Island	Nature Reserve	NSW
Morley Swamp G.L.R.	Natural Features Reserve	VIC
Mornington Peninsula	National Park	VIC
Mortimers Paddock B.R.	Natural Features Reserve	VIC
Mount Dundas	Regional Reserve	TAS
Mount Heemskirk	Regional Reserve	TAS
Mount Martha N.C.R.	Natural Features Reserve	VIC
Mount Richmond	National Park	VIC
Mount Vereker Creek	Natural Catchment Area	VIC
Mouzie B.R	Natural Features Reserve	VIC
Mouzie N.F.R	Natural Features Reserve	VIC
Muddy Lagoon	Nature Reserve	TAS
Mumbulla	Flora Reserve	NSW
Murkay Islets	Conservation Area	TAS
Murrah	Flora Reserve	NSW

Protected Area Name	Reserve Type	State
Murramarang	National Park	NSW
Mushroom Reef	Marine Sanctuary	VIC
Nadgee	Nature Reserve	NSW
Nares Rocks	Conservation Area	TAS
Narrawong F.R.	Nature Conservation Reserve	VIC
Nelson SS.R.	Natural Features Reserve	VIC
Nene Valley	Conservation Park	SA
New Year Island	Game Reserve	TAS
New Zealand Hill F.R.	Nature Conservation Reserve	VIC
Ninety Mile Beach	Marine National Park	VIC
Nooramunga Marine & Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
North East Islet	Nature Reserve	TAS
North Western Port N.C.R.	Natural Features Reserve	VIC
Nungurner B.R.	Natural Features Reserve	VIC
Nyerimilang Park G.L.R.	Natural Features Reserve	VIC
Ocean Beach	Conservation Area	TAS
Olivers Creek B.R.	Natural Features Reserve	VIC
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Penguin Islet	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Petrel Islands	Game Reserve	TAS
Phillip Island Nature Park	Other	VIC
Piccaninnie Ponds	Conservation Park	SA
Pieman River	State Reserve	TAS
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC
Porky Beach	Conservation Area	TAS
Portarlington (Point Richard) F.F.R.	Nature Conservation Reserve	VIC
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Rame Head	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Raymond Island G.L.R.	Natural Features Reserve	VIC
Rebecca Creek	Conservation Area	TAS
Red Hill South B.R.	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS

Protected Area Name	Reserve Type	State
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rigby Island G.L.R.	Natural Features Reserve	VIC
Rodondo Island	Nature Reserve	TAS
Rosebud B.R.	Natural Features Reserve	VIC
Salt Lagoon, St Leonards W.R	Nature Conservation Reserve	VIC
Salt Lake - Backwater Morass G.L.R.	Natural Features Reserve	VIC
Sandpatch	Wilderness Zone	VIC
Sartoris Rd Nugara	Conservation Covenant	TAS
Screw Creek N.C.R.	Natural Features Reserve	VIC
Seacrow Islet	Conservation Area	TAS
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Creek	Reference Area	VIC
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	State Reserve	TAS
Seal Rocks	Conservation Area	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Shell Islets	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Sister Islands	Conservation Area	TAS
Slaughterhouse Creek G.L.R	Natural Features Reserve	VIC
Slaves Bay	Conservation Area	TAS
Snowy River	Heritage River	VIC
South East Forest	National Park	NSW
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS
Southwest	Conservation Area	TAS
Southwest	National Park	TAS
Stack Island	Game Reserve	TAS
Steel Bay - Newland Backwater G.L.R.	Natural Features Reserve	VIC
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Strahan Customs House	Historic Site	TAS
Sugarloaf Rock	Conservation Area	TAS
Sundown Point	State Reserve	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Swan Reach Bay G.L.R.	Natural Features Reserve	VIC
Table Cape	State Reserve	TAS
Table Cape	Conservation Area	TAS
Tambar	Conservation Covenant	TAS
Tambo Delta - Metung G.L.R.	Natural Features Reserve	VIC
Tanja	Flora Reserve	NSW
Tarra Tarra B.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Tarwin Lower F.R.	Nature Conservation Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
Teepookana	Regional Reserve	TAS
Temma	Conservation Covenant	TAS
The Arches	Marine Sanctuary	VIC
The Doughboys	Nature Reserve	TAS
The Lakes	National Park	VIC
The Spit W.R.	Nature Conservation Reserve	VIC
Three Hummock Island	State Reserve	TAS
Tikkawoppa Plateau	Regional Reserve	TAS
Tin Mine Rd Loorana	Conservation Covenant	TAS
Tollgate Islands	Nature Reserve	NSW
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC
Trewalla H49 B.R.	Natural Features Reserve	VIC
Trial Harbour	State Reserve	TAS
Tully River	Conservation Area	TAS
Twelve Apostles	Marine National Park	VIC
Tyabb B.R.	Natural Features Reserve	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed (No.HA1038)	Heritage Agreement	SA
Unnamed (No.HA108)	Heritage Agreement	SA
Unnamed (No.HA1166)	Heritage Agreement	SA
Unnamed (No.HA1180)	Heritage Agreement	SA

Protected Area Name	Reserve Type	State
Unnamed (No.HA1404)	Heritage Agreement	SA
Unnamed (No.HA1457)	Heritage Agreement	SA
Unnamed (No.HA1560)	Heritage Agreement	SA
Unnamed (No.HA1626)	Heritage Agreement	SA
Unnamed (No.HA177)	Heritage Agreement	SA
Unnamed (No.HA26)	Heritage Agreement	SA
Unnamed (No.HA354)	Heritage Agreement	SA
Unnamed (No.HA42)	Heritage Agreement	SA
Unnamed (No.HA497)	Heritage Agreement	SA
Unnamed C0293	Private Nature Reserve	VIC
Unnamed P0155	Private Nature Reserve	VIC
Unnamed P0176	Private Nature Reserve	VIC
Upper South East	Marine Park	SA
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Wallaby Islands	Conservation Area	TAS
Waratah B.R	Natural Features Reserve	VIC
Warneet Balaka St B.R.	Natural Features Reserve	VIC
Warneet Iluka St B.R.	Natural Features Reserve	VIC
Warneet N.F.R.	Natural Features Reserve	VIC
Warra Creek	Regional Reserve	TAS
Warrengine Creek SS.R.	Natural Features Reserve	VIC
Wattle Point G.L.R.	Natural Features Reserve	VIC
Welcome River	State Reserve	TAS

Protected Area Name	Reserve Type	State
Welshpool H17 B.R	Natural Features Reserve	VIC
West Coast Range	Regional Reserve	TAS
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Whipstick Gully N.F.R.	Natural Features Reserve	VIC
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
William Hunter F.R	Nature Conservation Reserve	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	National Park	VIC
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonga Wonga South B.R	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Woodside H26 B.R.	Natural Features Reserve	VIC
Woodside H27 B.R	Natural Features Reserve	VIC
Woodside H28 B.R	Natural Features Reserve	VIC
Wright Rock	Nature Reserve	TAS
Yambacoona	Conservation Covenant	TAS
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC
Yanakie F.R	Nature Conservation Reserve	VIC
Yaringa	Marine National Park	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
East Gippsland RFA	Victoria
Eden RFA	New South Wales
Gippsland RFA	Victoria
Southern RFA	New South Wales
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Benedore River	VIC
Bondi Lake	NSW
Bungaree Lagoon	TAS
Clyde River Estuary	NSW
Coila Creek Delta	NSW
Corner Inlet	VIC
Cullendulla Creek and Embayment	NSW
Ewens Ponds	SA
Ewing's Marsh (Morass)	VIC
Glenelg Estuary	VIC
Glenelg River	VIC
Jack Smith Lake State Game Reserve	VIC
Jervis Bay	NSW
Jervis Bay Sea Cliffs	NSW
Lake Ashwood	TAS
Lake Bantick	TAS
Lake Bunga	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lake Garcia	TAS
Lake King Wetlands	VIC
Lake Tyers	VIC
Lake Victoria Wetlands	VIC
Lake Wellington Wetlands	VIC
Lavinia Nature Reserve	TAS

Wetland Name	State
Long Swamp	VIC
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Lower Snowy River Wetlands System	VIC
Mallacoota Inlet Wetlands	VIC
Merimbula Lake	NSW
Moruya River Estuary Saltmarshes	NSW
Mud Islands	VIC
Nadgee Lake and tributary wetlands	NSW
Nargal Lake	NSW
Nelson Lagoon	NSW
Pambula Estuarine Wetlands	NSW
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS
Pearshape Lagoon 4	TAS
Piccaninnie Ponds	SA
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Russells Swamp	VIC
Shallow Inlet Marine & Coastal Park	VIC
Snowy River	VIC
South East Coastal Salt Lakes	SA
St Georges Basin	NSW
Swan Bay & Swan Island	VIC
Sydenham Inlet Wetlands	VIC
Tamboon Inlet Wetlands	VIC

Wetland Name	State
Tambo River (Lower Reaches) East Swamps	VIC
Thurra River	VIC
Tower Hill	VIC
Tuross River Estuary	NSW
Twofold Bay	NSW
Unnamed Wetland	TAS
Waldrons Swamp	NSW
Wallaga Lake	NSW
Wallagoot Lagoon (Wallagoot Lake)	NSW
Werribee-Avalon Area	VIC
Western Port	VIC
Yambuk Wetlands	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Armstrong Creek Aquatic Venue and Multi-sport Community Facility	2023/09553		Referral Decision
Australian Centre for Disease Preparedness Part life Refit	2023/09497		Completed
Bermagui Golf Club Proposed Subdivision (Stages 3-8)	2022/09242		Post-Approval
Broulee Beach Estate residential development subdivision	2023/09551		Referral Decision
Eurobodalla Regional Hospital	2023/09506		Referral Decision
Geelong Hydrogen Hub	2022/09288		Referral Decision
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Nora Creina integrated golf course and tourism development, SA	2014/7249		Assessment
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Residential Development, Groves Road	2022/09357		Assessment
Robbins Island Renewable Energy Park, Robbins Island, Tasmania	2017/8096		Approval
Seadragon Offshore Wind Farm	2022/9163		Assessment
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Vopak Victoria Energy Terminal	2023/09507		Referral Decision
Controlled action			
Alberton Wind Farm, Sth Gippsland, Vic	2017/7854	Controlled Action	Post-Approval
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Basalt Quarry Extension (Mountainview Quarry)	2004/1329	Controlled Action	Completed
Boundary Road Quarry extension, Dromana, Vic	2018/8221	Controlled Action	Assessment Approach
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Construction of a factory for the production of ACV's	2007/3842	Controlled Action	Completed
Crib Point to Pakenham Gas Pipeline, Vic	2018/8297	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Dairy Farm expansion on the Woolnorth property	2013/6710	Controlled Action	Completed
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Extension of Mountain View basalt quarry by 490 hectares (Stage 2)	2004/1590	Controlled Action	Post-Approval
Gas Import Facility, Crib Point, Vic	2018/8298	Controlled Action	Completed
Geelong Salt Fields Urban Renewal Project	2012/6630	Controlled Action	Assessment Approach
Gippsland Lakes Mosquito Control Aerial /Hovercraft Spraying	2001/491	Controlled Action	Completed
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Glenelg Dolomite Quarry	2017/8021	Controlled Action	Post-Approval
Golden Beach Gas Project	2019/8513	Controlled Action	Post-Approval
Green Point Wind Farm	2001/529	Controlled Action	Post-Approval
Heemskirk Windfarm Development	2002/678	Controlled Action	Completed
Installation of replacement crude-condensate pipeline, Vic	2014/7202	Controlled Action	Post-Approval
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Maintenance Dredging of Toora Boat Ramp Channel	2008/4376	Controlled Action	Completed
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Pelican Point residential subdivision	2006/2529	Controlled Action	Completed
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Pruning of Mangrove bushes along Lyall Inlet for hovercraft access, Tooradin Ai	2007/3826	Controlled Action	Completed
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Estate, 251-319 Melaluka Rd	2007/3308	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Residential Subdivision and Stormwater Enhancements for land west of Ash Road	2012/6544	Controlled Action	Completed
Robbins Island Road to Hampshire Transmission Line	2020/8656	Controlled Action	Referral Decision
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Tarkine Forest Drive Road Upgrade	2011/6210	Controlled Action	Post-Approval
Tasmania Natural Gas Project - Stage 2	2001/211	Controlled Action	Post-Approval
The Tarkine Road Project	2009/5169	Controlled Action	Completed
Thomson River Mercury Recovery Project	2010/5734	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Upgrade and expansion of existing Yaringa Boat Harbour	2011/6014	Controlled Action	Post-Approval
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Viva Energy Gas Terminal Project	2020/8838	Controlled Action	Assessment Approach
Warralily - East Precinct Sparrovale Outfall, stormwater bypass channel, Armstrong Creek, Vic	2015/7553	Controlled Action	Post-Approval
Western Treatment Plant Environment Improvement Project (post Effluent Reuse Stage 2)	2002/688	Controlled Action	Post-Approval
White Rock Wind Farm	2003/986	Controlled Action	Completed
Windfarm	2003/1109	Controlled Action	Completed
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Wyndham Cove marina and residential development	2004/1331	Controlled Action	Post-Approval
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
55m lattice tower & infrastructure	2003/1159	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Acquistion of 2D seismic data in State Waters adjacent to Ninety Mile Beach-VIC/P39(V)	2004/1889	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed
Allendale wind farm	2007/3549	Not Controlled Action	Completed
Allmans Levee Track - Maintenance Work	2003/1053	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Angas and Galloway Exploration Wells VIC/P39(v)	2005/2330	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Aquacullture facility for rainbow trout and yabbies and recreational facilities	2002/822	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Barwon River Parkland Initiative, Taits Point, Stages 1 and 2	2010/5437	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Field Development	2007/3402	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Bass Basin - Pee Jay-1 - Drilling Program	2007/3908	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Batemans Bay Marina Redevelopment	2008/4265	Not Controlled Action	Completed
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
Caswell Street - Moruya East	2020/8781	Not Controlled Action	Completed
Clearance of native vegetation to create fire breaks	2004/1534	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of a Dwelling	2011/6160	Not Controlled Action	Completed
Construction of a flexi mat boat ramp	2011/5838	Not Controlled Action	Completed
Construction of an ocean access boat ramp at Bastion Point	2004/1407	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Conversion of the North Western Victoria rail system from broad gauge to standar	2002/657	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Creation of a habitat sanctuary at 550 Manks Road, Tooradin, VIC	2013/6845	Not Controlled Action	Completed
Cunninghame Arm Redevelopment (Stage 3)	2002/618	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
development of retirement resort	2004/1828	Not Controlled Action	Completed
Development of service station and restaurant Tooradin, Victoria	2013/6936	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
DOFA weed eradication program at Goorooyaroo NSW	2003/1270	Not Controlled Action	Completed
Dredging of Tuross Lake channel and depositon of spoil in lake	2004/1554	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Eden Wind Farm	2011/6037	Not Controlled Action	Completed
Eight Mile Creek Drainage Works, Peacocks Road, Eight Mile Creek, SA	2014/7170	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Erosion Trials - planting and pile program of >300 mangroves	2006/2856	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Expansion and upgrade of Biogas Utilisation Facilities at the Western Treatment	2005/2183	Not Controlled Action	Completed
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Extension of Mountain View basalt quarry by 113 hectares (stage one)	2004/1591	Not Controlled Action	Completed
Fabrication and Spooling of Pipe Strings at Crib Point	2008/4127	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Floating Observation Platform, Tooradin Channel	2006/2766	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed
George Bass Drive Lilli Pilli Road Realignment	2021/8876	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Gippsland Lakes Composting Toilet Program	2000/66	Not Controlled Action	Completed
Gleneig Spiny Crayfish Habitat Rehabilitation	2011/6164	Not Controlled Action	Completed
Golf Course Extension	2001/215	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Illuka Residential Estate	2007/3224	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Kipper Tuna Turrum Project Maintenance Dredging	2010/5430	Not Controlled Action	Completed
Kongorong Wind Farm	2002/568	Not Controlled Action	Completed
Laslett Wind Farm	2007/3550	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Lot 5 Pelican Point Road, Pelican Point SA - Proposed New Dwelling	2021/9011	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance dredging of Yaringa Channel	2004/1360	Not Controlled Action	Completed
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Milton/Ulladulla Sewerage Scheme	2001/251	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Multi-species Aquaculture Enterprise	2001/404	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Oceanlinx South Australia 1mW Greenwave Project	2012/6528	Not Controlled Action	Completed
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Offshore Seismic Survey	2001/498	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Piccaninnie Ponds flow path restoration project, SA	2013/6711	Not Controlled Action	Completed
Pioneer Road and bridge Duplication	2012/6291	Not Controlled Action	Completed
Pipeline easement regrowth removal	2011/5817	Not Controlled Action	Completed
Point Cooke Coastal Trail	2001/324	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Port Welshpool Harbour Dredging	2007/3521	Not Controlled Action	Completed
Power Station	2001/239	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Pump station upgrades and rising main construction, Lakes Entrance, Victoria	2016/7646	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Re-alignment of Breakwater Road	2006/2762	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
Regional Fast Rail Project - Geelong Country Works Package	2002/577	Not Controlled Action	Completed
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Removal of Sludge to Produce Dried Biosolids, Western Treatment Plant	2002/890	Not Controlled Action	Completed
Removal of Strzelecki Gum as part of the Regional Fast Rail Project	2006/2936	Not Controlled Action	Completed
Replacement of Four Bridges on Manks Road	2009/5106	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Development, 409 The Esplanade, St Leonards	2006/2950	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Restricted Recreation Facility - soccer pich, stadium and associated parking	2006/3034	Not Controlled Action	Completed
Robe Golf Club - Golf Course Extension, SA	2017/7928	Not Controlled Action	Completed
Robe Golf Course, Allotment 2, Davenport Street, Robe, SA	2014/7178	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Sludge handling and biosolids management - Western Treatment Plant	2006/2620	Not Controlled Action	Completed
Sole-2 appraisal gas well, VIC/RL3	2002/636	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Sparrovale Wetland stormwater management, Armstrong Creek and Charlemont, VIC	2018/8375	Not Controlled Action	Completed
Spikey Beach 1, West Triton Drilling Program, Bass Basin Permit T/38P	2007/3914	Not Controlled Action	Completed
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
Tenby Point Sewerage Pipeline	2001/406	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
To undertake maintenance dredging of the Toora Boat Ramp Channel, VIC	2014/7225	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Upgrade of existing access track	2011/5933	Not Controlled Action	Completed
Upgrade of the existing Thornhill St Sewer Pump Station	2010/5618	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
Wastewater Treatment System Upgrade	2004/1420	Not Controlled Action	Completed
Water capture to restore wetlands	2007/3223	Not Controlled Action	Completed
Western Treatment Plant Groyne and Beach Works	2001/185	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Wind Farm	2002/691	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Wooralla Drive pump station, pipeline and associated works	2005/2450	Not Controlled Action	Completed
Wreck Bay Housing Development	2001/299	Not Controlled Action	Completed
WTP 115E Lagoon Seawall, Western Treatment Plant WTP, Werribee Victoria	2019/8577	Not Controlled Action	Completed
WTP Effluent Discharge Improvement Works (Multiple Outlets), Werribee, Vic	2015/7619	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D & 3D seismic survey T/39P	2005/2237	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey, EPP33	2004/1794	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Aquisition Survey	2008/4041	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4131	Not Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		(Particular Manner)	
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey Permit Area VIC/P49	2006/2943	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey Program in Bass Strait	2008/4040	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
2D Siesmic Marine Survey	2008/4074	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
3D Seismic Survey	2008/4528	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Road Settlement Road to Reserve Road Duplication Project	2020/8737	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval
Bitumen Storage Facility	2007/3676	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
Collection of cast bull kelp	2002/813	Not Controlled Action (Particular Manner)	Post-Approval
construction of a 14km , 33kV distribution line, including connection to the Lake Bonney Central win	2003/1108	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construction of Stormwater Harvesting Dam, Anakie Road, Lovely Banks VIC	2009/5001	Not Controlled Action (Particular Manner)	Post-Approval
Construction of wharf	2003/1050	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Corio Bay Channel Safety Adjustment Program	2011/6208	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular Manner)	Post-Approval
development of retirement village, Bellarine Lakes Golf Course, Bellarine Hwy	2006/3015	Not Controlled Action (Particular Manner)	Post-Approval
DIDR01 Wetlands, Barwon Heads Road, Armstrong Creek	2020/8835	Not Controlled Action (Particular Manner)	Post-Approval
Drainage, Trenching & Cable Laying as Part of the Regional Fast Rail Project	2003/1133	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf extension, NSW	2015/7582	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf Extension, NSW	2016/7828	Not Controlled Action (Particular Manner)	Completed
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
extension of a sporting facility and upgrading of associated infrastructure	2004/1325	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Granville Wind Farm, TAS	2012/6585	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Installation of a 17x6m floating pontoon adjacent to existing boat ramp	2009/4842	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Lakes Entrance Sand Management Program Trial Dredging	2007/3852	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Entrance Sand Management Program Trial Dredging	2007/3694	Not Controlled Action (Particular Manner)	Completed
Lakes Oil 3D Seismic Survey	2002/768	Not Controlled Action (Particular Manner)	Post-Approval
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness PT 2	2006/3044	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness WHA	2004/1846	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance dredging of 150,000 cubic metres of sediment in Burnie Port and du	2004/1569	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging of Oceanic Sand	2011/5932	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program	2009/4953	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Marine Farming Expansion, Macquarie Harbour, TAS	2012/6406	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular Manner)	Post-Approval
Point Wilson Explosives Area Waterside Infrastructure Remediation	2012/6376	Not Controlled Action (Particular Manner)	Post-Approval
Rail Upgrades at Geelong Port Project	2010/5363	Not Controlled Action (Particular Manner)	Post-Approval
Regional Fibre Optic Project (RFOP)	2003/913	Not Controlled Action (Particular Manner)	Post-Approval
Removal of Tasmanian blue gums	2004/1356	Not Controlled Action (Particular Manner)	Post-Approval
Remove silt build up on existing swales around the perimeter of the Three Hummo	2010/5676	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey in Petroleum Permit Area EPP27	2002/648	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval
Soil and Organic Recycling Facility	2005/2216	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
supersonic missile launch facility	2000/120	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Trial Growing Mullet in Western Treatment Plant Sewage Ponds	2009/4812	Not Controlled Action (Particular Manner)	Post-Approval
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular Manner)	Post-Approval
Upgrade of Arthur River Road	2003/930	Not Controlled Action (Particular Manner)	Post-Approval
Upgrade of capacity and supporting infrastructure, Western Treatment Plant	2009/5036	Not Controlled Action (Particular Manner)	Post-Approval
Vegetation clearance and residential subdivision near Mt Gambier	2004/1370	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
Waterfront Facility at HMAS Creswell	2002/658	Not Controlled Action (Particular Manner)	Post-Approval
West Seahorse Oil Development Project, Commonwealth waters offshore Victoria	2013/6973	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
2D Seismic Survey	2008/3978	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Beecroft Weapons Range Visitors Centre	2004/1322	Referral Decision	Completed
Breeding program for Grey Nurse Sharks	2007/3245	Referral Decision	Completed
Creamery Road PSP Area Geelong West Property Development	2021/8939	Referral Decision	Referral Publication
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed
Holloman 2010 Vic/P60 3D Seismic Acquisition Survey Program	2009/5251	Referral Decision	Completed
Kelly Channel Discharge, Macquarie Harbour, Tasmania	2017/8057	Referral Decision	Completed
Land clearing for stock grazing	2005/2176	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
Stanton 3D Marine Seismic Survey	2013/6764	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Corringle Road	2009/4825	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Wind Farm	2001/139	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Big Horseshoe Canyon	South-east
Bonney Coast Upwelling	South-east
Canyons on the eastern continental slope	Temperate east
Seamounts South and east of Tasmania	South-east
Shelf rocky reefs	Temperate east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Known to occur
Seabirds		
Ardenna carneipes Flesh-footed Shearwater [82404]	Foraging	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Breeding	Known to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Likely to occur

Scientific Name	Behaviour	Presence
Ardenna grisea Sooty Shearwater [82651]	Foraging	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Likely to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Likely to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Macronectes giganteus Southern Giant Petrel [1060]	Foraging	Known to occur
Macronectes halli Northern Giant Petrel [1061]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur

Scientific Name	Behaviour	Presence
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Oceanites oceanites Wilsons Storm Petrel [1034]	Migration	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Likely to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur
Procellaria parkinsoni Black Petrel [1048]	Foraging	Likely to occur
Pterodroma macroptera Great-winged Petrel [1035]	Foraging	Likely to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur

Scientific Name	Behaviour	Presence
Thalassarche cauta steadi White-capped Albatross [82344]	Foraging	Known to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Likely to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Thalasseus bergii Crested Tern [83000]	Breeding	Known to occur
Thalasseus bergii Crested Tern [83000]	Foraging	Likely to occur
Seals		
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Known to occur
Neophoca cinerea Australian Sea Lion [22]	Foraging (male and female)	Known to occur
Sharks		
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur

Scientific Name	Behaviour	Presence
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Megaptera novaeangliae Humpback Whale [38]	Foraging	Known to occur

Bioregional Assessments

SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website
Sydney	Sydney Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Aug-2023

Summary
Details
Matters of NES
Other Matters Protected by the EPBC Act
Extra Information
Caveat
Acknowledgements



Figure: Permit VIC/P79 North LOWC (low threshold)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	1
National Heritage Places:	5
Wetlands of International Importance (Ramsar	8
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	22
Listed Threatened Species:	202
Listed Migratory Species:	93

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	102
Commonwealth Heritage Places:	13
Listed Marine Species:	153
Whales and Other Cetaceans:	33
Critical Habitats:	1
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	15
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	382
Regional Forest Agreements:	6
Nationally Important Wetlands:	60
EPBC Act Referrals:	390
Key Ecological Features (Marine):	8
Biologically Important Areas:	64
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Legal Status
Tasmanian Wilderness	TAS	Declared property

National Heritage Places		[Resource Information]
Name	State	Legal Status
Historic		
Great Ocean Road and Scenic Environs	VIC	Listed place
Point Nepean Defence Sites and Quarantine Station Area	VIC	Listed place
Quarantine Station and Surrounds	VIC	Within listed place
Indigenous		
Western Tasmania Aboriginal Cultural Landscape	TAS	Listed place
Natural		
Tasmanian Wilderness	TAS	Listed place

Wetlands of International Importance (Ramsar Wetlands)	[Resource Information]
Ramsar Site Name	Proximity
Corner inlet	Within Ramsar site
Edithvale-seaford wetlands	Within 10km of Ramsar site
Gippsland lakes	Within Ramsar site
Glenelg estuary and discovery bay wetlands	Within Ramsar site
Lavinia	Within Ramsar site
Piccaninnie ponds karst wetlands	Within Ramsar site
Port phillip bay (western shoreline) and bellarine peninsula	Within Ramsar site
Western port	Within Ramsar site

Commonwealth Marine Area	[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name

Feature Name
EEZ and Territorial Sea
EEZ and Territorial Sea

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Alpine Sphagnum Bogs and Associated Fens	Endangered	Community may occur within area
Araluen Scarp Grassy Forest	Endangered	Community may occur within area
Assemblages of species associated with open-coast salt-wedge estuaries of western and central Victoria ecological community	Endangered	Community likely to occur within area
Brogo Vine Forest of the South East Corner Bioregion	Endangered	Community likely to occur within area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area
Giant Kelp Marine Forests of South East Australia	Endangered	Community may occur within area
Gippsland Red Gum (Eucalyptus tereticornis subsp. mediana) Grassy Woodland and Associated Native Grassland	Critically Endangered	Community likely to occur within area
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area
Illawarra and south coast lowland forest and woodland ecological community	Critically Endangered	Community likely to occur within area
Karst springs and associated alkaline fens of the Naracoorte Coastal Plain Bioregion	Endangered	Community likely to occur within area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area

Community Name	Threatened Category	Presence Text
Lowland Grassy Woodland in the South East Corner Bioregion	Critically Endangered	Community likely to occur within area
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Natural Damp Grassland of the Victorian Coastal Plains	Critically Endangered	Community likely to occur within area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area
Tasmanian white gum (Eucalyptus viminalis) wet forest	Critically Endangered	Community likely to occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
null		
Mordacia praecox		
Non-parasitic Lamprey, Precocious Lamprey [81530]	Endangered	Species or species habitat likely to occur within area
BIRD		
Acanthiza pusilla magnirostris listed as Acanthiza pusilla archibaldi		
King Island Brown Thornbill, Brown Thornbill (King Island) [91709]	Endangered	Species or species habitat known to occur within area
Acanthornis magna greeniana		
King Island Scrubtit, Scrubtit (King Island) [82329]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Breeding likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus banksii graptogyne South-eastern Red-tailed Black-Cockatoo [25982]	Endangered	Foraging, feeding or related behaviour known to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Platycercus caledonicus brownii Green Rosella (King Island) [67041]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Breeding known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Breeding known to occur within area
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
Strepera fuliginosa colei Black Currawong (King Island) [67113]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population)		
Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
CRUSTACEAN		
Astacopsis gouldi		
Giant Freshwater Crayfish, Tasmanian Giant Freshwater Lobster [64415]	Vulnerable	Species or species habitat likely to occur within area
Euastacus bispinosus		
Glenelg Spiny Freshwater Crayfish, Pricklyback [81552]	Endangered	Species or species habitat known to occur within area
FISH		
Brachiopsilus ziebelli		
Ziebell's Handfish, Waterfall Bay Handfish [83757]	Vulnerable	Species or species habitat likely to occur within area
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
Galaxiella pusilla		
Eastern Dwarf Galaxias, Dwarf Galaxias [56790]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Hoplostethus atlanticus		
Orange Roughy, Deep-sea Perch, Red Roughy [68455]	Conservation Dependent	Species or species habitat likely to occur within area
Nannoperca obscura		
Yarra Pygmy Perch [26177]	Vulnerable	Species or species habitat known to occur within area
Nannoperca variegata		
Variegated Pygmy Perch, Ewens Pygmy Perch, Golden Pygmy Perch [26178]	Vulnerable	Species or species habitat known to occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat known to occur within area
Rexea solandri (eastern Australian population)		
Eastern Gemfish [76339]	Conservation Dependent	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
Thunnus maccoyii		
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area
Thymichthys politus		
Red Handfish [83756]	Critically Endangered	Species or species habitat may occur within area
FROG		
Heleioporus australiacus		
Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat known to occur within area
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area
Litoria raniformis		
Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Litoria watsoni Watson's Tree Frog [91509]	Endangered	Species or species habitat known to occur within area
Mixophyes balbus Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat known to occur within area
INSECT		
Oreisplanus munionga larana Marrawah Skipper, Alpine Sedge Skipper, Alpine Skipper [77747]	Vulnerable	Species or species habitat known to occur within area
Synemon plana Golden Sun Moth [25234]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Antechinus minimus maritimus Swamp Antechinus (mainland) [83086]	Vulnerable	Species or species habitat known to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Dasyurus maculatus maculatus (Tasmanian population)		
Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat known to occur within area
Mastacomys fuscus mordicus		
Broad-toothed Rat (mainland), Tooarrana [87617]	Vulnerable	Species or species habitat known to occur within area
Miniopterus orianae bassanii		
Southern Bent-wing Bat [87645]	Critically Endangered	Breeding known to occur within area
Mirounga leonina		
Southern Elephant Seal [26]	Vulnerable	Breeding may occur within area
Neophoca cinerea		
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii		
Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat likely to occur within area
Perameles gunnii Victorian subspecies		
Eastern Barred Bandicoot (Mainland) [88020]	Endangered	Translocated population known to occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat known to occur within area
Petaurus australis australis		
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat known to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)		
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Potorous longipes Long-footed Potoroo [217]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat known to occur within area
Pseudomys fumeus Smoky Mouse, Konoom [88]	Endangered	Species or species habitat likely to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area
Pseudomys shortridgei Heath Mouse, Dayang, Heath Rat [77]	Endangered	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
Sarcophilus harrisii Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
OTHER		
Hyridella glenelgensis Glenelg Freshwater Mussel [82953]	Critically Endangered	Species or species habitat may occur within area
Megascolides australis Giant Gippsland Earthworm [64420]	Vulnerable	Species or species habitat known to occur within area
PLANT		
Acacia caerulescens Limestone Blue Wattle, Buchan Blue, Buchan Blue Wattle [21883]	Vulnerable	Species or species habitat known to occur within area
Acacia constablei Narrabarba Wattle [10798]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Acacia georgensis Bega Wattle [9848]	Vulnerable	Species or species habitat known to occur within area
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area
Astelia australiana Tall Astelia [10851]	Vulnerable	Species or species habitat may occur within area
Astrotricha crassifolia Thick-leaf Star-hair [10352]	Vulnerable	Species or species habitat may occur within area
Caladenia calcicola Limestone Spider-orchid [10065]	Vulnerable	Species or species habitat likely to occur within area
Caladenia colorata Coloured Spider-orchid, Small Western Spider-orchid, Painted Spider-orchid [54999]	Endangered	Species or species habitat known to occur within area
Caladenia dienema Windswept Spider-orchid [64858]	Endangered	Species or species habitat known to occur within area
Caladenia hastata Melblom's Spider-orchid [16118]	Endangered	Species or species habitat likely to occur within area
Caladenia insularis French Island Spider-orchid [24372]	Vulnerable	Species or species habitat known to occur within area
Caladenia orientalis Eastern Spider Orchid [83410]	Endangered	Species or species habitat known to occur within area
Caladenia ornata Ornate Pink Fingers [76213]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Caladenia richardsiorum Little Dip Spider-orchid [55018]	Endangered	Species or species habitat likely to occur within area
Caladenia robinsonii Frankston Spider-orchid [24375]	Endangered	Species or species habitat likely to occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat may occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat known to occur within area
Calochilus pulchellus Pretty Beard Orchid, Pretty Beard-orchid [84677]	Endangered	Species or species habitat known to occur within area
Centrolepis pedderensis Pedder Centrolepis, Pedder Bristlewort [12647]	Endangered	Species or species habitat likely to occur within area
Commersonia prostrata Dwarf Kerrawang [87152]	Endangered	Species or species habitat known to occur within area
Correa baeuerlenii Chef's Cap [17007]	Vulnerable	Species or species habitat known to occur within area
Correa lawrenceana var. genoensis Genoa River Correa [66626]	Endangered	Species or species habitat may occur within area
Corunastylis brachystachya Short-spiked Midge-orchid, Rocky Cape Midge Orchid [76410]	Endangered	Species or species habitat known to occur within area
Corunastylis rhyolitica listed as Genoplesium rhyoliticum Pambula Midge-orchid, Rhyolite Midge Orchid [78697]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Corunastylis vernalis listed as Genoplesium vernale		
East Lynne Midge-orchid [78699]	Vulnerable	Species or species habitat known to occur within area
Craspedia preminghana		
Preminghana Billybutton [77046]	Endangered	Species or species habitat likely to occur within area
Cryptostylis hunteriana		
Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat known to occur within area
Dianella amoena		
Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area
Diuris basaltica		
Small Golden Moths Orchid, Early Golden Moths [64654]	Endangered	Species or species habitat may occur within area
Diuris lanceolata		
Snake Orchid [10231]	Endangered	Species or species habitat known to occur within area
Dodonaea procumbens		
Trailing Hop-bush [12149]	Vulnerable	Species or species habitat known to occur within area
Eucalyptus strzeleckii		
Strzelecki Gum [55400]	Vulnerable	Species or species habitat known to occur within area
Euphrasia collina subsp. muelleri		
Purple Eyebright, Mueller's Eyebright [16151]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana		
Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat known to occur within area
Grevillea infecunda		
Anglesea Grevillea [22026]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat known to occur within area
Hiya distans listed as Hypolepis distans Scrambling Ground-fern [92548]	Endangered	Species or species habitat known to occur within area
Ixodia achillaeoides subsp. arenicola Sand Ixodia, Ixodia [21474]	Vulnerable	Species or species habitat known to occur within area
Lachnagrostis adamsonii Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat known to occur within area
Leiocarpa gatesii Wrinkled Buttons [76212]	Vulnerable	Species or species habitat likely to occur within area
Leionema ralstonii [64926]	Vulnerable	Species or species habitat known to occur within area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat known to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area
Lomatia tasmanica King's Lomatia [3745]	Critically Endangered	Species or species habitat likely to occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area
Pomaderris cotoneaster Cotoneaster Pomaderris [2043]	Endangered	Species or species habitat may occur within area
Pomaderris halmaturina subsp. halmaturina Kangaroo Island Pomaderris [21964]	Vulnerable	Species or species habitat known to occur within area
Pomaderris parrisiae Parris' Pomaderris [22119]	Vulnerable	Species or species habitat known to occur within area
Prasophyllum atratum Three Hummock Leek-orchid [82677]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum diversiflorum Gorae Leek-orchid [13210]	Endangered	Species or species habitat likely to occur within area
Prasophyllum favonium Western Leek-orchid [64949]	Critically Endangered	Species or species habitat likely to occur within area
Prasophyllum frenchii Maroon Leek-orchid, Slaty Leek-orchid, Stout Leek-orchid, French's Leek-orchid, Swamp Leek-orchid [9704]	Endangered	Species or species habitat known to occur within area
Prasophyllum litorale listed as Prasophyllum littorale Coastal Leek Orchid [55234]	Critically Endangered	Species or species habitat known to occur within area
Prasophyllum pulchellum Pretty Leek-orchid [64953]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Prasophyllum secutum Northern Leek-orchid [64954]	Endangered	Species or species habitat likely to occur within area
Prasophyllum spicatum Dense Leek-orchid [55146]	Vulnerable	Species or species habitat known to occur within area
Prostanthera galbraithiae Wellington Mintbush [64959]	Vulnerable	Species or species habitat likely to occur within area
Pseudocephalozia paludicola Alpine Leafy Liverwort [66441]	Vulnerable	Species or species habitat likely to occur within area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat known to occur within area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat known to occur within area
Pterostylis rubenachii Arthur River Greenhood [64536]	Endangered	Species or species habitat known to occur within area
Pterostylis tenuissima Swamp Greenhood, Dainty Swamp Orchid [13139]	Vulnerable	Species or species habitat known to occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat likely to occur within area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat may occur within area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat known to occur within area
Taraxacum cygnorum Coast Dandelion, Native Dandelion [2508]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat known to occur within area
Thelymitra matthewsii Spiral Sun-orchid [4168]	Vulnerable	Species or species habitat known to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat known to occur within area
Westringia davidii [19079]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area
Zieria tuberculata Warty Zieria [56736]	Vulnerable	Species or species habitat known to occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Delma impar		
Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Lissolepis coventryi		
Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Tympanocryptis pinguicolla		
Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area
SHARK		
Carcharias taurus (east coast population)		
Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat known to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Centrophorus harrissoni		
Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish [68444]	Conservation Dependent	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Centrophorus uyato listed as Centrophorus zeehaani		
Little Gulper Shark [68446]	Conservation Dependent	Species or species habitat likely to occur within area
Galeorhinus galeus		
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Zearaja maugeana		
Maugean Skate, Port Davey Skate [83504]	Endangered	Species or species habitat known to occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea		
Sooty Shearwater [82651]		Breeding known to occur within area
Ardenna pacifica		
Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris		
Short-tailed Shearwater [82652]		Breeding known to occur within area
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat may occur within area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Onychoprion anaethetus Bridled Tern [82845]		Breeding known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Sternula albifrons Little Tern [82849]		Breeding known to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Migratory Marine Species

Scientific Name	Threatened Category	Presence Text
Balaenoptera bonaerensis Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat likely to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Breeding known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Physeter macrocephalus		
Sperm Whale [59]		Foraging, feeding or related behaviour known to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Cuculus optatus		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Roosting known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat known to occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat known to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Breeding known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus		
Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area
Calidris subminuta Long-toed Stint [861]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola Wood Sandpiper [829]		Roosting known to occur within area
Tringa incana Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State
Communications, Information Technology and the Arts - Australian Postal Corporation	
Commonwealth Land - Australian Postal Commission [12052]	NSW
Communications, Information Technology and the Arts - Telstra Corporation Limited	
Commonwealth Land - Australian Telecommunications Commission [15535]	NSW
Commonwealth Land - Australian Telecommunications Commission [15461]	NSW
Commonwealth Land - Australian Telecommunications Commission [12265]	NSW

Commonwealth Land Name	State
Commonwealth Land - Australian Telecommunications Commission [16089]	NSW
Commonwealth Land - Australian Telecommunications Commission [12014]	NSW
Commonwealth Land - Australian Telecommunications Commission [12053]	NSW
Commonwealth Land - Australian Telecommunications Commission [15611]	NSW
Commonwealth Land - Australian Telecommunications Commission [12050]	NSW
Commonwealth Land - Telstra Corporation Limited [15888]	NSW
Commonwealth Land - Telstra Corporation Limited [12051]	NSW
Defence	
Defence - CROWS NEST CAMP - QUEENSCLIFF [21028]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21029]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21027]	VIC
Defence - CROWS NEST CAMP - QUEENSCLIFF [21026]	VIC
Defence - HMAS CERBERUS [20092]	VIC
Defence - HMAS CERBERUS [20102]	VIC
Defence - HMAS CERBERUS [20103]	VIC
Defence - HMAS CERBERUS [20104]	VIC
Defence - HMAS CERBERUS [20100]	VIC
Defence - HMAS CERBERUS [20101]	VIC
Defence - HMAS CERBERUS [20091]	VIC
Defence - HMAS CERBERUS [20093]	VIC
Defence - HMAS CERBERUS [20097]	VIC
Defence - HMAS CERBERUS [20096]	VIC
Defence - HMAS CERBERUS [20090]	VIC
Defence - HMAS CERBERUS [20099]	VIC
Defence - HMAS CERBERUS [20098]	VIC

Commonwealth Land Name	State
Defence - HMAS CERBERUS [20095]	VIC
Defence - HMAS CERBERUS [20094]	VIC
Defence - HMAS CERBERUS [20083]	VIC
Defence - HMAS CERBERUS [20082]	VIC
Defence - HMAS CERBERUS [20081]	VIC
Defence - HMAS CERBERUS [20080]	VIC
Defence - HMAS CERBERUS [20085]	VIC
Defence - HMAS CERBERUS [20087]	VIC
Defence - HMAS CERBERUS [20084]	VIC
Defence - HMAS CERBERUS [20088]	VIC
Defence - HMAS CERBERUS [20089]	VIC
Defence - HMAS CERBERUS [20086]	VIC
Defence - POINT WILSON EXPLOSIVES AREA [21442]	VIC
Defence - POINT WILSON EXPLOSIVES AREA [21441]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21030]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21033]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21032]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21031]	VIC
Defence - STAFF COLLEGE-FORT QUEENSCLIFF [21034]	VIC
Defence - SWAN ISLAND TRAINING AREA [21447]	VIC
Defence - SWAN ISLAND TRAINING AREA [21448]	VIC
Defence - SWAN ISLAND TRAINING AREA [21446]	VIC
Defence - TRAINING CENTRE (Norris Barracks) - Portsea [21025]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21019]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21021]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21020]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21023]	VIC

Commonwealth Land Name	State
Defence - Training Depot, Darts RD 3305 Portland [21022]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21024]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21018]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21016]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21017]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21014]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21015]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21012]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21013]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21010]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21011]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21007]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21008]	VIC
Defence - Training Depot, Darts RD 3305 Portland [21009]	VIC
Defence - WARRNAMBOOL TRAINING DEPOT [21111]	VIC
Defence - WEST HEAD GUNNERY RANGE [21112]	VIC
Transport and Regional Services - Australian Maritime Safety Authority	
Commonwealth Land - Australian Maritime Safety Authority [41215]	SA
Commonwealth Land - Australian Maritime Safety Authority [41288]	SA
Commonwealth Land - Australian Maritime Safety Authority [41289]	SA
Commonwealth Land - Australian Maritime Safety Authority [41263]	SA
Unknown	
Commonwealth Land - [60114]	TAS
Commonwealth Land - [60113]	TAS
Commonwealth Land - [60112]	TAS
Commonwealth Land - [60116]	TAS
Commonwealth Land - [60115]	TAS
Commonwealth Land - [21492]	VIC

Commonwealth Land Name	State
Commonwealth Land - [21496]	VIC
Commonwealth Land - [21491]	VIC
Commonwealth Land - [21490]	VIC
Commonwealth Land - [21498]	VIC
Commonwealth Land - [22391]	VIC
Commonwealth Land - [22390]	VIC
Commonwealth Land - [21507]	VIC
Commonwealth Land - [21509]	VIC
Commonwealth Land - [21508]	VIC
Commonwealth Land - [21583]	VIC
Commonwealth Land - [21589]	VIC
Commonwealth Land - [60346]	TAS
Commonwealth Land - [21582]	VIC
Commonwealth Land - [21487]	VIC
Commonwealth Land - [21570]	VIC
Commonwealth Land - [21489]	VIC
Commonwealth Land - [21488]	VIC
Commonwealth Land - [21497]	VIC
Commonwealth Land - [21591]	VIC
Commonwealth Land - [60111]	TAS
Commonwealth Land - [21590]	VIC

Commonwealth Heritage Places		[Resource Information]
Name	State	Status
Historic		
Cape Northumberland Lighthouse	SA	Listed place
Cape Sorell Lighthouse	TAS	Listed place
Cape Wickham Lighthouse	TAS	Listed place
Fort Queenscliff	VIC	Listed place

Name	State	Status
Gabo Island Lighthouse	VIC	Listed place
HMAS Cerberus Central Area Group	VIC	Listed place
Montague Island Lighthouse	NSW	Listed place
Sorrento Post Office	VIC	Listed place
Swan Island Defence Precinct	VIC	Listed place
Wilsons Promontory Lighthouse	VIC	Listed place
Natural		
HMAS Cerberus Marine and Coastal Area	VIC	Listed place
Point Wilson Defence Natural Area	VIC	Listed place
Swan Island and Naval Waters	VIC	Listed place

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat known to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Breeding known to occur within area

Scientific Name	Threatened Category	Presence Text
Ardenna pacifica as Puffinus pacificus Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Ardenna tenuirostris as Puffinus tenuirostris Short-tailed Shearwater [82652]		Breeding known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
Calidris alba Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris subminuta Long-toed Stint [861]		Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area overfly marine area
Chroicocephalus novaehollandiae as Larus novaehollandiae Silver Gull [82326]		Breeding known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Eudyptula minor Little Penguin [1085]		Breeding known to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat may occur within area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]		Roosting known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Roosting known to occur within area overfly marine area
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Breeding known to occur within area
Larus dominicanus Kelp Gull [809]		Breeding known to occur within area
Larus pacificus Pacific Gull [811]		Breeding known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
Limicola falcinellus Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Roosting known to occur within area overfly marine area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Morus capensis Cape Gannet [59569]		Breeding known to occur within area
Morus serrator Australasian Gannet [1020]		Breeding known to occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat known to occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Breeding known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Breeding known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area

Scientific Name	Threatened Category	Presence Text
Onychoprion anaethetus as Sterna anaethetus Bridled Tern [82845]		Breeding known to occur within area
Onychoprion fuscatus as Sterna fuscata Sooty Tern [90682]		Breeding known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Pelagodroma marina White-faced Storm-Petrel [1016]		Breeding known to occur within area
Pelecanoides urinatrix Common Diving-Petrel [1018]		Breeding known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Roosting known to occur within area overfly marine area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Pterodroma macroptera Great-winged Petrel [1035]		Foraging, feeding or related behaviour known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Breeding known to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Breeding known to occur within area
Sternula nereis as Sterna nereis Fairy Tern [82949]		Breeding known to occur within area
Stiltia isabella Australian Pratincole [818]		Roosting known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Symposiachrus trivirgatus as Monarcha trivirgatus		
Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Breeding known to occur within area
Thalassarche chrysostoma		
Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalasseus bergii as Sterna bergii		
Greater Crested Tern [83000]		Breeding known to occur within area
Thinornis cucullatus as Thinornis rubricollis		
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area
Thinornis cucullatus cucullatus as Thinornis rubricollis rubricollis		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Tringa brevipes as Heteroscelus brevipes		
Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa glareola		
Wood Sandpiper [829]		Roosting known to occur within area overfly marine area
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura australe		
Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Acentronura tentaculata Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area
Campichthys tryoni Tryon's Pipefish [66193]		Species or species habitat may occur within area
Cosmocampus howensis Lord Howe Pipefish [66208]		Species or species habitat may occur within area
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus minotaur Bullneck Seahorse [66705]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Hypselognathus horridus Shaggy Pipefish, Prickly Pipefish [66244]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Kimblaeus bassensis Trawl Pipefish, Bass Strait Pipefish [66247]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Breeding known to occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Breeding known to occur within area
Mirounga leonina Southern Elephant Seal [26]	Vulnerable	Breeding may occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat known to occur within area
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata		
Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera bonaerensis		
Antarctic Minke Whale, Dark-shoulder Minke Whale [67812]		Species or species habitat likely to occur within area
Balaenoptera borealis		
Sei Whale [34]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat likely to occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Foraging, feeding or related behaviour known to occur within area
Balaenoptera physalus		
Fin Whale [37]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Current Scientific Name	Status	Type of Presence
Berardius arnuxii Arnoux's Beaked Whale [70]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour likely to occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Globicephala macrorhynchus Short-finned Pilot Whale [62]		Species or species habitat may occur within area
Globicephala melas Long-finned Pilot Whale [59282]		Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Hyperoodon planifrons Southern Bottlenose Whale [71]		Species or species habitat may occur within area
Kogia breviceps Pygmy Sperm Whale [57]		Species or species habitat may occur within area
Kogia sima Dwarf Sperm Whale [85043]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Lissodelphis peronii Southern Right Whale Dolphin [44]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Foraging, feeding or related behaviour known to occur within area
Mesoplodon bowdoini Andrew's Beaked Whale [73]		Species or species habitat may occur within area
Mesoplodon densirostris Blainville's Beaked Whale, Dense-beaked Whale [74]		Species or species habitat may occur within area
Mesoplodon ginkgodens Gingko-toothed Beaked Whale, Gingko-toothed Whale, Gingko Beaked Whale [59564]		Species or species habitat may occur within area
Mesoplodon grayi Gray's Beaked Whale, Scamperdown Whale [75]		Species or species habitat may occur within area
Mesoplodon hectori Hector's Beaked Whale [76]		Species or species habitat may occur within area
Mesoplodon layardii Strap-toothed Beaked Whale, Strap-toothed Whale, Layard's Beaked Whale [25556]		Species or species habitat may occur within area
Mesoplodon mirus True's Beaked Whale [54]		Species or species habitat may occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Physeter macrocephalus Sperm Whale [59]		Foraging, feeding or related behaviour known to occur within area

Current Scientific Name	Status	Type of Presence
Pseudorca crassidens False Killer Whale [48]		Species or species habitat likely to occur within area
Tasmacetus shepherdi Shepherd's Beaked Whale, Tasman Beaked Whale [55]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area
Ziphius cavirostris Cuvier's Beaked Whale, Goose-beaked Whale [56]		Species or species habitat may occur within area

Critical Habitats [Resource Information]

Name	Type of Presence
Thalassarche cauta (Shy Albatross) - Albatross Island, The Mewstone, Pedra Branca	Listed Critical Habitat

Australian Marine Parks [Resource Information]

Park Name	Zone & IUCN Categories
Flinders	Marine National Park Zone (IUCN II)
Murray	Marine National Park Zone (IUCN II)
Tasman Fracture	Marine National Park Zone (IUCN II)
Apollo	Multiple Use Zone (IUCN VI)
Beagle	Multiple Use Zone (IUCN VI)
Boags	Multiple Use Zone (IUCN VI)
East Gippsland	Multiple Use Zone (IUCN VI)
Franklin	Multiple Use Zone (IUCN VI)
Murray	Multiple Use Zone (IUCN VI)

Park Name	Zone & IUCN Categories
Murray	Multiple Use Zone (IUCN VI)
Tasman Fracture	Multiple Use Zone (IUCN VI)
Zeehan	Multiple Use Zone (IUCN VI)
Murray	Special Purpose Zone (IUCN VI)
Nelson	Special Purpose Zone (IUCN VI)
Zeehan	Special Purpose Zone (IUCN VI)

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Agnes Falls S.R.	Natural Features Reserve	VIC
Aire River	Heritage River	VIC
Aire River W.R.	Natural Features Reserve	VIC
Aireys Inlet B.R.	Natural Features Reserve	VIC
Albatross Island	Nature Reserve	TAS
Anglesea B.R.	Natural Features Reserve	VIC
Anser Island	Reference Area	VIC
Arthur-Pieman	Conservation Area	TAS
Arthur River Rd Marrawah	Conservation Covenant	TAS
Arthurs Seat	State Park	VIC
Baawang	Reference Area	VIC
Badger Box Creek	Nature Reserve	TAS
Badger River	Regional Reserve	TAS
Balcombe Creek B.R.	Natural Features Reserve	VIC
Bald Hill N.C.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Bald Hills B.R.	Natural Features Reserve	VIC
Balnarring G95 B.R.	Natural Features Reserve	VIC
Bancroft Bay - Kalimna G.L.R.	Natural Features Reserve	VIC
Barham Paradise S.R.	Natural Features Reserve	VIC
Barwon Bluff	Marine Sanctuary	VIC
Bass Pyramid	Nature Reserve	TAS
Bass River SS.R.	Natural Features Reserve	VIC
Batemans	Marine Park	NSW
Bats Ridge W.R	Nature Conservation Reserve	VIC
Baudin Rocks	Conservation Park	SA
Bay of Islands Coastal Park	Conservation Park	VIC
Beachport	Conservation Park	SA
Bellarine I109 B.R.	Natural Features Reserve	VIC
Bellarine I110 B.R.	Natural Features Reserve	VIC
Bell Bird Creek	Nature Reserve	NSW
Bemm, Goolengook, Arte and Errinundra Rivers	Heritage River	VIC
Ben Boyd	National Park	NSW
Benedore River	Reference Area	VIC
Bennison F.F.R.	Nature Conservation Reserve	VIC
Bermaguee	Nature Reserve	NSW
Bermagui	Flora Reserve	NSW
Bernouilli	Conservation Reserve	SA
Beware Reef	Marine Sanctuary	VIC

Protected Area Name	Reserve Type	State
Biamanga	National Park	NSW
Bird Island	Game Reserve	TAS
Bittern B.R.	Natural Features Reserve	VIC
Black Pyramid Rock	Nature Reserve	TAS
Blond Bay W.R.	Natural Features Reserve	VIC
Bolwarra H43 B.R.	Natural Features Reserve	VIC
Bolwarra H44 B.R.	Natural Features Reserve	VIC
Bolwarra H45 B.R.	Natural Features Reserve	VIC
Bournda	Nature Reserve	NSW
Bournda	National Park	NSW
Breamlea F.F.R.	Nature Conservation Reserve	VIC
Brodribb River F.F.R	Nature Conservation Reserve	VIC
Broulee Island	Nature Reserve	NSW
Buckley N.C.R.	Natural Features Reserve	VIC
Bucks Lake	Game Reserve	SA
Bunurong	Marine National Park	VIC
Bunurong Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Cabbage Tree Creek F.R	Nature Conservation Reserve	VIC
Calder River	Reference Area	VIC
Calm Bay	State Reserve	TAS
Canunda	National Park	SA
Cape Conran Coastal Park	Conservation Park	VIC

Protected Area Name	Reserve Type	State
Cape Howe	Wilderness Zone	VIC
Cape Howe	Marine National Park	VIC
Cape Jaffa	Rock Lobster Sanctuary	SA
Cape Liptrap Coastal Park	Conservation Park	VIC
Cape Nelson	State Park	VIC
Cape Patterson N.C.R	Natural Features Reserve	VIC
Cape Sorell	Historic Site	TAS
Cape Wickham	State Reserve	TAS
Cape Wickham	Conservation Area	TAS
Carpenter Rocks	Conservation Park	SA
Cataraqui Point	Conservation Area	TAS
Christmas Island	Nature Reserve	TAS
Churchill Island	Marine National Park	VIC
City of Melbourne Bay	Conservation Area	TAS
Colbert Ck B.R	Natural Features Reserve	VIC
Colliers Forest Reserve	Conservation Covenant	TAS
Colliers Swamp	Conservation Area	TAS
Cone Islet	Conservation Area	TAS
Conewarre K47 SS.R.	Natural Features Reserve	VIC
Conewarre K48 SS.R.	Natural Features Reserve	VIC
Corinella B.R.	Natural Features Reserve	VIC
Corinella Cemetery B.R.	Natural Features Reserve	VIC
Corner Inlet	Marine National Park	VIC
Corner Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC

Protected Area Name	Reserve Type	State
Councillor Island	Nature Reserve	TAS
Counsel Hill	Conservation Area	TAS
Crib Point G228 B.R.	Natural Features Reserve	VIC
Crib Point G229 B.R.	Natural Features Reserve	VIC
Croajingolong	National Park	VIC
Curdie Vale N.C.R.	Natural Features Reserve	VIC
Currie Lightkeepers Residence	Historic Site	TAS
Curtis Island	Nature Reserve	TAS
Darriman H29 B.R	Natural Features Reserve	VIC
Deen Maar	Indigenous Protected Area	VIC
Deep Lagoons	Conservation Area	TAS
Devilbend N.F.R.	Natural Features Reserve	VIC
Devils Tower	Nature Reserve	TAS
Dingley Dell	Conservation Park	SA
Disappointment Bay	State Reserve	TAS
Discovery Bay	Marine National Park	VIC
Discovery Bay Coastal Park	Conservation Park	VIC
Double Creek	Natural Catchment Area	VIC
Douglas Point	Conservation Park	SA
Drakes B.R.	Natural Features Reserve	VIC
Dromana B.R.	Natural Features Reserve	VIC
Drumdlemara H1 B.R	Natural Features Reserve	VIC
Drumdlemara H2 B.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Drumdlemara H4 B.R	Natural Features Reserve	VIC
Dry Creek	Forest Reserve	SA
Eagle Rock	Marine Sanctuary	VIC
East Gippsland Coastal streams	Natural Catchment Area	VIC
East Moncoeur Island	Conservation Area	TAS
Edna Bowman N.C.R.	Natural Features Reserve	VIC
Eldorado	Conservation Area	TAS
Entrance Point	Reference Area	VIC
Eurobodalla	National Park	NSW
Ewens Ponds	Conservation Park	SA
Ewing Morass W.R	Natural Features Reserve	VIC
Fingal B.R	Natural Features Reserve	VIC
First and Second Islands F.R.	Nature Conservation Reserve	VIC
Flannagan Island G.L.R.	Natural Features Reserve	VIC
Flinders G234 B.R.	Natural Features Reserve	VIC
Flinders N.F.R.	Natural Features Reserve	VIC
Fossil Beach G.R.	Natural Features Reserve	VIC
Four Mile Beach	Regional Reserve	TAS
Franklin River SS.R.	Natural Features Reserve	VIC
Fraser Island G.L.R.	Natural Features Reserve	VIC
French Island	National Park	VIC
French Island	Marine National Park	VIC

Protected Area Name	Reserve Type	State
French Island (east)	Reference Area	VIC
French Island (north)	Reference Area	VIC
French Island G230 B.R	Natural Features Reserve	VIC
Fresh-water Swamp, Woodside Beach W.R	Natural Features Reserve	VIC
Gentle Annie	Conservation Area	TAS
Giffard H31 B.R	Natural Features Reserve	VIC
Gippsland Lakes Coastal Park	Conservation Park	VIC
Glenelg River	Heritage River	VIC
Goose Lagoon W.R	Natural Features Reserve	VIC
Gorae B.R.	Natural Features Reserve	VIC
Grantville B.R	Natural Features Reserve	VIC
Grantville N.C.R	Natural Features Reserve	VIC
Great Otway	National Park	VIC
Guichen Bay	Conservation Park	SA
Gulaga	National Park	NSW
Harbour Islets	Conservation Area	TAS
Hedditch Hill S.R.	Natural Features Reserve	VIC
Henderson Islets	Conservation Area	TAS
Hoddle Range F.R.	Nature Conservation Reserve	VIC
Hogan Group	Conservation Area	TAS
Hopkins Falls S.R.	Natural Features Reserve	VIC
Hunter Island	Conservation Area	TAS
Hurdy Gurdy Creek N.C.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Illawong	Nature Reserve	NSW
Jack Smith Lake W.R	Natural Features Reserve	VIC
Johanna Falls S.R.	Natural Features Reserve	VIC
Johnstones Creek F.R	Nature Conservation Reserve	VIC
Kangaroo Island	Conservation Area	TAS
Kangerong N.C.R	Natural Features Reserve	VIC
Kentbruck H14 B.R	Natural Features Reserve	VIC
Kentbruck H50 B.R.	Natural Features Reserve	VIC
Kentford Forest	Conservation Area	TAS
Kentford Forest	Nature Reserve	TAS
Kentford Rd Nugara	Conservation Covenant	TAS
Kent Group	National Park	TAS
Kilcunda N.C.R.	Natural Features Reserve	VIC
Kings Run	Private Nature Reserve	TAS
Kings Run #2	Conservation Covenant	TAS
Lady Julia Percy Island W.R.	Nature Conservation Reserve	VIC
Lake Aringa W.R	Nature Conservation Reserve	VIC
Lake Coleman W.R	Natural Features Reserve	VIC
Lake Connewarre W.R	Natural Features Reserve	VIC
Lake Corringle W.R	Natural Features Reserve	VIC
Lake Curlip W.R.	Natural Features Reserve	VIC
Lake Denison W.R	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Lake Frome	Conservation Park	SA
Lake Gillear W.R	Natural Features Reserve	VIC
Lake Robe	Game Reserve	SA
Lake St Clair	Conservation Park	SA
Lake Tyers S.P.	State Park	VIC
Latrobe B.R.	Natural Features Reserve	VIC
Lavinia	State Reserve	TAS
Lawrence Rocks W.R.	Nature Conservation Reserve	VIC
Leongatha H3 B.R.	Natural Features Reserve	VIC
Lily Lagoon	Nature Reserve	TAS
Lily Pond B.R.	Natural Features Reserve	VIC
Little Dip	Conservation Park	SA
Little Trefoil	Conservation Area	TAS
Lonsdale Lakes W.R	Nature Conservation Reserve	VIC
Lower Glenelg	National Park	VIC
Lower Glenelg River	Conservation Park	SA
Lower South East	Marine Park	SA
Lymwood	Conservation Covenant	TAS
Macquarie Harbour	Historic Site	TAS
Main Ridge N.C.R.	Natural Features Reserve	VIC
Mallacoota B.R.	Natural Features Reserve	VIC
Marengo N.C.R.	Nature Conservation Reserve	VIC
Marengo Reefs	Marine Sanctuary	VIC

Protected Area Name	Reserve Type	State
Margaret Brock Reef	Rock Lobster Sanctuary	SA
Merri	Marine Sanctuary	VIC
Merricks Creek B.R.	Natural Features Reserve	VIC
Millwood Road	Conservation Covenant	TAS
Mimosa Rocks	National Park	NSW
Montague Island	Nature Reserve	NSW
Mornington Peninsula	National Park	VIC
Mortimers Paddock B.R.	Natural Features Reserve	VIC
Mount Dundas	Regional Reserve	TAS
Mount Heemskirk	Regional Reserve	TAS
Mount Martha N.C.R.	Natural Features Reserve	VIC
Mount Richmond	National Park	VIC
Mount Vereker Creek	Natural Catchment Area	VIC
Mouzie B.R	Natural Features Reserve	VIC
Mouzie N.F.R	Natural Features Reserve	VIC
Muddy Lagoon	Nature Reserve	TAS
Mumbulla	Flora Reserve	NSW
Murkay Islets	Conservation Area	TAS
Murrah	Flora Reserve	NSW
Mushroom Reef	Marine Sanctuary	VIC
Nadgee	Nature Reserve	NSW
Nares Rocks	Conservation Area	TAS
Narrawong F.R.	Nature Conservation Reserve	VIC
Nelson SS.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Nene Valley	Conservation Park	SA
New Year Island	Game Reserve	TAS
New Zealand Hill F.R.	Nature Conservation Reserve	VIC
Ninety Mile Beach	Marine National Park	VIC
Nooramunga Marine & Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
North East Islet	Nature Reserve	TAS
North Western Port N.C.R.	Natural Features Reserve	VIC
Nyerimilang Park G.L.R.	Natural Features Reserve	VIC
Ocean Beach	Conservation Area	TAS
Olivers Creek B.R.	Natural Features Reserve	VIC
Painkalac Creek	Reference Area	VIC
Parker River	Reference Area	VIC
Pegarah	Private Nature Reserve	TAS
Pegarah Forest	Conservation Covenant	TAS
Pegarah Rd King Island	Conservation Covenant	TAS
Penguin Island	Conservation Park	SA
Petrel Islands	Game Reserve	TAS
Phillip Island Nature Park	Other	VIC
Piccaninnie Ponds	Conservation Park	SA
Pieman River	State Reserve	TAS
Point Addis	Marine National Park	VIC
Point Danger	Marine Sanctuary	VIC
Point Hicks	Marine National Park	VIC
Point Nepean	National Park	VIC

Protected Area Name	Reserve Type	State
Porky Beach	Conservation Area	TAS
Portarlington (Point Richard) F.F.R.	Nature Conservation Reserve	VIC
Port Campbell	National Park	VIC
Portland H46 B.R.	Natural Features Reserve	VIC
Portland H47 B.R.	Natural Features Reserve	VIC
Port Phillip Heads	Marine National Park	VIC
Preminghana	Indigenous Protected Area	TAS
Princetown W.R	Natural Features Reserve	VIC
Queenscliff N.F.R	Natural Features Reserve	VIC
Rame Head	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Rebecca Creek	Conservation Area	TAS
Red Hill South B.R.	Natural Features Reserve	VIC
Red Hut Point	Conservation Area	TAS
Red Hut Road #1	Conservation Covenant	TAS
Red Hut Road #2	Conservation Covenant	TAS
Reef Island and Bass River Mouth N.C.R	Natural Features Reserve	VIC
Reekara Road #1	Conservation Covenant	TAS
Reekara Road #2	Conservation Covenant	TAS
Reid Rocks	Nature Reserve	TAS
Rigby Island G.L.R.	Natural Features Reserve	VIC
Rivoli Bay	Rock Lobster Sanctuary	SA
Rodondo Island	Nature Reserve	TAS

Protected Area Name	Reserve Type	State
Rosebud B.R.	Natural Features Reserve	VIC
Salt Lagoon, St Leonards W.R	Nature Conservation Reserve	VIC
Sandpatch	Wilderness Zone	VIC
Sartoris Rd Nugara	Conservation Covenant	TAS
Screw Creek N.C.R.	Natural Features Reserve	VIC
Seacrow Islet	Conservation Area	TAS
Sea Elephant	Conservation Area	TAS
Sea Elephant Bootlace	Conservation Covenant	TAS
Sea Elephant River	Conservation Covenant	TAS
Seal Creek	Reference Area	VIC
Seal Islands W.R.	Nature Conservation Reserve	VIC
Seal Rocks	Conservation Area	TAS
Seal Rocks	State Reserve	TAS
Shallow Inlet Marine and Coastal Park	National Parks Act Schedule 4 park or reserve	VIC
Shell Islets	Conservation Area	TAS
Slaves Bay	Conservation Area	TAS
Snowy River	Heritage River	VIC
South East Forest	National Park	NSW
Southern Kangaroo Island	Marine Park	SA
Southern Wilsons Promontory	Remote and Natural Area - Schedule 6, National Parks Act	VIC
South Rd Nugara	Conservation Covenant	TAS
Southwest	National Park	TAS
Southwest	Conservation Area	TAS

Protected Area Name	Reserve Type	State
Stack Island	Game Reserve	TAS
Steel Bay - Newland Backwater G.L.R.	Natural Features Reserve	VIC
Stokes Point	Conservation Area	TAS
Stony Creek (Otways)	Reference Area	VIC
Strahan Customs House	Historic Site	TAS
Sugarloaf Rock	Conservation Area	TAS
Sundown Point	State Reserve	TAS
Swan Bay - Edwards Point W.R	Nature Conservation Reserve	VIC
Tambar	Conservation Covenant	TAS
Tanja	Flora Reserve	NSW
Tarra Tarra B.R	Natural Features Reserve	VIC
Tarwin Lower F.R.	Nature Conservation Reserve	VIC
Tathams Lagoon	Conservation Area	TAS
Teepookana	Regional Reserve	TAS
Temma	Conservation Covenant	TAS
The Arches	Marine Sanctuary	VIC
The Doughboys	Nature Reserve	TAS
The Gurdies N.C.R	Natural Features Reserve	VIC
The Lakes	National Park	VIC
Three Hummock Island	State Reserve	TAS
Tikkawoppa Plateau	Regional Reserve	TAS
Tin Mine Rd Loorana	Conservation Covenant	TAS
Tower Hill W.R	Natural Features Reserve	VIC
Trewalla H48 B.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Trewalla H49 B.R.	Natural Features Reserve	VIC
Trial Harbour	State Reserve	TAS
Tully River	Conservation Area	TAS
Twelve Apostles	Marine National Park	VIC
Tyabb B.R.	Natural Features Reserve	VIC
Tyrendarra F.R	Nature Conservation Reserve	VIC
Unnamed (No.HA1038)	Heritage Agreement	SA
Unnamed (No.HA108)	Heritage Agreement	SA
Unnamed (No.HA1166)	Heritage Agreement	SA
Unnamed (No.HA1180)	Heritage Agreement	SA
Unnamed (No.HA1361)	Heritage Agreement	SA
Unnamed (No.HA1404)	Heritage Agreement	SA
Unnamed (No.HA1457)	Heritage Agreement	SA
Unnamed (No.HA1560)	Heritage Agreement	SA
Unnamed (No.HA1571)	Heritage Agreement	SA
Unnamed (No.HA1626)	Heritage Agreement	SA
Unnamed (No.HA177)	Heritage Agreement	SA
Unnamed (No.HA197)	Heritage Agreement	SA
Unnamed (No.HA245)	Heritage Agreement	SA
Unnamed (No.HA26)	Heritage Agreement	SA
Unnamed (No.HA354)	Heritage Agreement	SA
Unnamed (No.HA42)	Heritage Agreement	SA
Unnamed (No.HA497)	Heritage Agreement	SA
Unnamed C0293	Private Nature Reserve	VIC
Unnamed P0155	Private Nature Reserve	VIC

Protected Area Name	Reserve Type	State
Unnamed P0176	Private Nature Reserve	VIC
Upper South East	Marine Park	SA
Ventnor B.R.	Natural Features Reserve	VIC
Vereker Creek	Reference Area	VIC
Waratah B.R	Natural Features Reserve	VIC
Warneet Balaka St B.R.	Natural Features Reserve	VIC
Warneet Iluka St B.R.	Natural Features Reserve	VIC
Warneet N.F.R.	Natural Features Reserve	VIC
Warra Creek	Regional Reserve	TAS
Warrengine Creek SS.R.	Natural Features Reserve	VIC
Welcome River	State Reserve	TAS
Welshpool H17 B.R	Natural Features Reserve	VIC
West Coast Range	Regional Reserve	TAS
West Moncoeur Island	Nature Reserve	TAS
West Point	State Reserve	TAS
Whipstick Gully N.F.R.	Natural Features Reserve	VIC
Wicks Road Nugara	Conservation Covenant	TAS
Wild Dog B.R.	Natural Features Reserve	VIC
Wild Dog Creek SS.R.	Natural Features Reserve	VIC
William Hunter F.R	Nature Conservation Reserve	VIC
Wilsons Promontory	Wilderness Zone	VIC
Wilsons Promontory	National Park	VIC

Protected Area Name	Reserve Type	State
Wilsons Promontory	Marine National Park	VIC
Wilsons Promontory Islands	Remote and Natural Area - Schedule 6, National Parks Act	VIC
Wilsons Promontory Marine Park	National Parks Act Schedule 4 park or reserve	VIC
Wilsons Promontory Marine Reserve	National Parks Act Schedule 4 park or reserve	VIC
Wongarra B.R.	Natural Features Reserve	VIC
Wonga Wonga South B.R	Natural Features Reserve	VIC
Wonthaggi G237 B.R.	Natural Features Reserve	VIC
Wonthaggi G238 B.R.	Natural Features Reserve	VIC
Wonthaggi G239 B.R.	Natural Features Reserve	VIC
Wonthaggi G240 B.R.	Natural Features Reserve	VIC
Wonthaggi G241 B.R.	Natural Features Reserve	VIC
Wonthaggi Heathlands N.C.R	Natural Features Reserve	VIC
Woodside H26 B.R.	Natural Features Reserve	VIC
Woodside H27 B.R	Natural Features Reserve	VIC
Woodside H28 B.R	Natural Features Reserve	VIC
Wright Rock	Nature Reserve	TAS
Yambacoona	Conservation Covenant	TAS
Yambuk F.F.R.	Nature Conservation Reserve	VIC
Yambuk Wetlands N.C.R.	Natural Features Reserve	VIC

Protected Area Name	Reserve Type	State
Yanakie F.R	Nature Conservation Reserve	VIC
Yaringa	Marine National Park	VIC

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State
East Gippsland RFA	Victoria
Eden RFA	New South Wales
Gippsland RFA	Victoria
Southern RFA	New South Wales
Tasmania RFA	Tasmania
West Victoria RFA	Victoria

Nationally Important Wetlands [Resource Information]

Wetland Name	State
Aire River	VIC
Anderson Inlet	VIC
Benedore River	VIC
Bondi Lake	NSW
Bungaree Lagoon	TAS
Clyde River Estuary	NSW
Coila Creek Delta	NSW
Corner Inlet	VIC
Ewens Ponds	SA
Ewing's Marsh (Morass)	VIC
Glenelg Estuary	VIC
Glenelg River	VIC
Jack Smith Lake State Game Reserve	VIC

Wetland Name	State
Lake Ashwood	TAS
Lake Bantick	TAS
Lake Bunga	VIC
Lake Connewarre State Wildlife Reserve	VIC
Lake Flannigan	TAS
Lake Frome & Mullins Swamp	SA
Lake Garcia	TAS
Lake King Wetlands	VIC
Lake Tyers	VIC
Lake Victoria Wetlands	VIC
Lake Wellington Wetlands	VIC
Lavinia Nature Reserve	TAS
Long Swamp	VIC
Lower Aire River Wetlands	VIC
Lower Merri River Wetlands	VIC
Lower Snowy River Wetlands System	VIC
Mallacoota Inlet Wetlands	VIC
Merimbula Lake	NSW
Moruya River Estuary Saltmarshes	NSW
Mud Islands	VIC
Nadgee Lake and tributary wetlands	NSW
Nargal Lake	NSW
Nelson Lagoon	NSW
Pambula Estuarine Wetlands	NSW
Pearshape Lagoon 1	TAS
Pearshape Lagoon 2	TAS
Pearshape Lagoon 3	TAS

Wetland Name	State
Pearshape Lagoon 4	TAS
Piccaninnie Ponds	SA
Powlett River Mouth	VIC
Princetown Wetlands	VIC
Shallow Inlet Marine & Coastal Park	VIC
Snowy River	VIC
South East Coastal Salt Lakes	SA
Swan Bay & Swan Island	VIC
Sydenham Inlet Wetlands	VIC
Tamboon Inlet Wetlands	VIC
Thurra River	VIC
Tower Hill	VIC
Tuross River Estuary	NSW
Unnamed Wetland	TAS
Waldrons Swamp	NSW
Wallaga Lake	NSW
Wallagoot Lagoon (Wallagoot Lake)	NSW
Werribee-Avalon Area	VIC
Western Port	VIC
Yambuk Wetlands	VIC

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Apollo Bay to Skenes Creek Coastal Trail	2022/09274		Assessment
Bermagui Golf Club Proposed Subdivision (Stages 3-8)	2022/09242		Post-Approval
Broulee Beach Estate residential development subdivision	2023/09551		Referral Decision
Eurobodalla Regional Hospital	2023/09506		Referral Decision

Title of referral	Reference	Referral Outcome	Assessment Status
Greater Gippsland Offshore Wind Project	2022/09379		Assessment
Greater Gippsland Offshore Wind Project Initial Marine Field Investigations	2022/09374		Completed
Nora Creina integrated golf course and tourism development, SA	2014/7249		Assessment
Otway Astrolabe 3D Marine Seismic Survey, Otway Basin	2012/6421		Completed
Robbins Island Renewable Energy Park, Robbins Island, Tasmania	2017/8096		Approval
Seadragon Offshore Wind Farm	2022/9163		Assessment
Southern Winds Offshore Wind Project	2022/09435		Assessment
Southern Winds Offshore Wind Project Initial Marine Field Investigations	2022/09436		Completed
Spinifex Offshore Surveys	2022/09359		Completed
Vopak Victoria Energy Terminal	2023/09507		Referral Decision
Controlled action			
Alberton Wind Farm, Sth Gippsland, Vic	2017/7854	Controlled Action	Post-Approval
Alston-1 petroleum exploration well, permit VIC/P44	2003/1315	Controlled Action	Post-Approval
Bald Hills Wind Farm 80 Turbines	2002/730	Controlled Action	Post-Approval
Basalt Quarry Extension (Mountainview Quarry)	2004/1329	Controlled Action	Completed
Boundary Road Quarry extension, Dromana, Vic	2018/8221	Controlled Action	Assessment Approach
Casino Gas Field Development	2003/1295	Controlled Action	Post-Approval
City Of Greater Geelong Mosquito Control Program 2021-2030, Vic	2020/8782	Controlled Action	Further Information Request
Construction of a factory for the production of ACV's	2007/3842	Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Crib Point to Pakenham Gas Pipeline, Vic	2018/8297	Controlled Action	Completed
Dairy Farm expansion on the Woolnorth property	2013/6710	Controlled Action	Completed
DPIPWE - Arthur-Pieman Conservation Area - off-road vehicle mitigation actions	2017/8038	Controlled Action	Completed
Establishment of plantation for use of effluent water	2003/1063	Controlled Action	Completed
Extension of Mountain View basalt quarry by 490 hectares (Stage 2)	2004/1590	Controlled Action	Post-Approval
Gas Import Facility, Crib Point, Vic	2018/8298	Controlled Action	Completed
Geelong Salt Fields Urban Renewal Project	2012/6630	Controlled Action	Assessment Approach
Gippsland Regional Port Project	2020/8667	Controlled Action	Assessment Approach
Glenelg Dolomite Quarry	2017/8021	Controlled Action	Post-Approval
Golden Beach Gas Project	2019/8513	Controlled Action	Post-Approval
Green Point Wind Farm	2001/529	Controlled Action	Post-Approval
Heemskirk Windfarm Development	2002/678	Controlled Action	Completed
Installation of replacement crude-condensate pipeline, Vic	2014/7202	Controlled Action	Post-Approval
Kentbruck Green Power Hub, Vic	2019/8510	Controlled Action	Assessment Approach
Lonsdale Golf Club Redevelopment	2003/969	Controlled Action	Post-Approval
Lorne Golf Course redevelopment	2004/1513	Controlled Action	Post-Approval
Maintenance Dredging of Toora Boat Ramp Channel	2008/4376	Controlled Action	Completed
Mosquito Control	2005/2132	Controlled Action	Post-Approval
Otway Development	2002/621	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Pacific Hydro (Portland) Wind Farm SW Victoria	2000/18	Controlled Action	Post-Approval
Pelican Point residential subdivision	2006/2529	Controlled Action	Completed
Port Phillip Bay Channel Deepening	2002/576	Controlled Action	Post-Approval
Redevelopment of post office and construction of dwellings	2007/3639	Controlled Action	Completed
Replacement of Existing Bayles Bridges 1 and 2 on Koo Wee Rup - Longwarry Road over Yallock Creek	2005/1990	Controlled Action	Post-Approval
Residential and Golf Course Development Project	2003/1144	Controlled Action	Post-Approval
Residential Estate, 251-319 Melaluka Rd	2007/3308	Controlled Action	Post-Approval
Residential Subdivision & Infrastructure Parish of Belfast	2005/1954	Controlled Action	Completed
Residential Subdivision and Stormwater Enhancements for land west of Ash Road	2012/6544	Controlled Action	Completed
SA Offshore Windfarm	2021/9028	Controlled Action	Assessment Approach
Schomberg 3D Marine Seismic Survey	2007/3754	Controlled Action	Completed
Star of the South Offshore Wind Farm Project	2020/8650	Controlled Action	Guidelines Issued
Strike Oil Gas Exploration Well, Otway Basin (VIC/P44)	2000/97	Controlled Action	Completed
Tarkine Forest Drive Road Upgrade	2011/6210	Controlled Action	Post-Approval
The Tarkine Road Project	2009/5169	Controlled Action	Completed
Thomson River Mercury Recovery Project	2010/5734	Controlled Action	Completed
Twelve Apostles Saddle Lookout	2019/8571	Controlled Action	Post-Approval
Upgrade and expansion of existing Yaringa Boat Harbour	2011/6014	Controlled Action	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
VIC Offshore Windfarm	2021/8966	Controlled Action	Assessment Approach
VICP61 2D Marine Seismic Survey	2008/4075	Controlled Action	Completed
Victorian Desalination Project, Bass Coast	2008/3948	Controlled Action	Post-Approval
Viva Energy Gas Terminal Project	2020/8838	Controlled Action	Assessment Approach
White Rock Wind Farm	2003/986	Controlled Action	Completed
Windfarm	2003/1109	Controlled Action	Completed
Wind Farm Construction	2000/12	Controlled Action	Post-Approval
Wind Turbines	2001/439	Controlled Action	Completed
Wyndham Cove marina and residential development	2004/1331	Controlled Action	Post-Approval
Yolla Gas Field (TRL1) Development	2001/321	Controlled Action	Post-Approval
Not controlled action			
2004/2005 drilling program for exploration and production (VIC 01-06, 09-11, 16, 18 & 19 and VIC/RL	2003/1282	Not Controlled Action	Completed
2D seismic survey, Petroleum Exploration Permit Area T/36P	2004/1787	Not Controlled Action	Completed
2D seismic Survey in VIC/P55, VIC/RL2 and VIC/P41	2004/1876	Not Controlled Action	Completed
55m lattice tower & infrastructure	2003/1159	Not Controlled Action	Completed
accomodation units and associatedadministration and recreational facilities	2001/430	Not Controlled Action	Completed
Acquistion of 2D seismic data in State Waters adjacent to Ninety Mile Beach-VIC/P39(V)	2004/1889	Not Controlled Action	Completed
Airey Inlet water reclamation plant to Anglesea sewerage system	2006/2539	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Allendale wind farm	2007/3549	Not Controlled Action	Completed
Alteration of Grass Maintenance Regime within Powling St Wetlands	2012/6527	Not Controlled Action	Completed
Amrit-1 exploration well	2004/1572	Not Controlled Action	Completed
Angas and Galloway Exploration Wells VIC/P39(v)	2005/2330	Not Controlled Action	Completed
Anglesea Mine South Wall Vegetation removal, Anglesea, Vic	2017/8060	Not Controlled Action	Completed
Apollo Bay Water Storage Basin, VIC	2012/6484	Not Controlled Action	Completed
Aquacullture facility for rainbow trout and yabbies and recreational facilities	2002/822	Not Controlled Action	Completed
Barwon Heads Rd gas pipeline installation	2006/2769	Not Controlled Action	Completed
Barwon Heads Stormwater Outfall upgrade, Victoria	2016/7650	Not Controlled Action	Completed
Barwon River Parkland Initiative, Taits Point, Stages 1 and 2	2010/5437	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Development	2011/6052	Not Controlled Action	Completed
Basker-Manta-Gummy Oil Field Development	2007/3402	Not Controlled Action	Completed
Basker-Manta Oil Field Development	2005/2026	Not Controlled Action	Completed
Beardie-1 Field wildcat oil well	2001/505	Not Controlled Action	Completed
Biodiversity Impacts Audit	2011/6191	Not Controlled Action	Completed
Bluff Heights Estate Stages 2 to 4	2003/1047	Not Controlled Action	Completed
Boneo Park Equestrian Centre	2008/4639	Not Controlled Action	Completed
Cape Jaffa anchorage marina and residences	2004/1816	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Capture of Juvenile Tasmanian Devils for Conservation Purposes	2007/3261	Not Controlled Action	Completed
Capture of Tasmanian Devils from Disease-Free Areas	2007/3883	Not Controlled Action	Completed
Caswell Street - Moruya East	2020/8781	Not Controlled Action	Completed
CO2 geosequestration - Otway Basin Pilot Project	2006/2699	Not Controlled Action	Completed
Communications tower extension	2003/1099	Not Controlled Action	Completed
Construct a Recycled Water Pipeline from Somers Treatment Plant to Blue Scope S	2009/4982	Not Controlled Action	Completed
Construction and operation of Barwon Water biosolids treatment facility	2008/4345	Not Controlled Action	Completed
Construction of a Dwelling	2011/6160	Not Controlled Action	Completed
Construction of a flexi mat boat ramp	2011/5838	Not Controlled Action	Completed
Construction of an ocean access boat ramp at Bastion Point	2004/1407	Not Controlled Action	Completed
Construction of Barwon Heads Bridge	2005/2375	Not Controlled Action	Completed
Construction of Infrastructure to Extract, Treat & Transfer Groundwater to Wurde	2008/4104	Not Controlled Action	Completed
Construction of Overtaking Lanes on Great Ocean Rd	2008/4044	Not Controlled Action	Completed
construction of pump station for pump diversion from the Barham River	2003/1242	Not Controlled Action	Completed
Construction of the Edgars Road Extension, from Childs Road, Lalor to Cooper Street, Epping	2003/1135	Not Controlled Action	Completed
Cowes Primary School Gymnasium	2020/8683	Not Controlled Action	Completed
Cunninghame Arm Redevelopment (Stage 3)	2002/618	Not Controlled Action	Completed
Development of Kipper gas field within Vic/L3, Vic/L4 Vic/RL2	2005/2484	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Development of Pt Nepean Quarantine Station (former) National Centre for Coasts and Climate	2008/4653	Not Controlled Action	Completed
development of retirement resort	2004/1828	Not Controlled Action	Completed
Development of Turrum Oil Field and associated infrastructure	2003/1204	Not Controlled Action	Completed
Divestment of Norris Barracks	2003/963	Not Controlled Action	Completed
DOFA weed eradication program at Goorooyaroo NSW	2003/1270	Not Controlled Action	Completed
Dredging of Tuross Lake channel and depositon of spoil in lake	2004/1554	Not Controlled Action	Completed
Drilling and side track completion at Baleen gas production well in Production Licence area VIC/L21	2004/1535	Not Controlled Action	Completed
Drilling of 'Culverin' oil exploration well, permit VIC/P56	2005/2279	Not Controlled Action	Completed
Drilling of Callister-1 exploration well in VIC/P51	2004/1633	Not Controlled Action	Completed
Drilling of Scallop-1 Exploration Well	2003/917	Not Controlled Action	Completed
East Pilchard exploration well	2001/137	Not Controlled Action	Completed
Eden Wind Farm	2011/6037	Not Controlled Action	Completed
Eight Mile Creek Drainage Works, Peacocks Road, Eight Mile Creek, SA	2014/7170	Not Controlled Action	Completed
Enterprise 1 Exploration Drilling Program, near Port Campbell, Vic	2019/8438	Not Controlled Action	Completed
Erosion Trials - planting and pile program of >300 mangroves	2006/2856	Not Controlled Action	Completed
Establishment of a 6 turbine windfarm near Wonthaggi	2002/820	Not Controlled Action	Completed
Expansion of the Candowie Reservoir and associated revegetation works	2012/6317	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Exploration drilling for liquid/gaseous hydrocarbons	2004/1681	Not Controlled Action	Completed
Exploration Drilling Well Trefoil-1	2003/1058	Not Controlled Action	Completed
Extension of Mountain View basalt quarry by 113 hectares (stage one)	2004/1591	Not Controlled Action	Completed
Fabrication and Spooling of Pipe Strings at Crib Point	2008/4127	Not Controlled Action	Completed
Ferry Service Infrastructure Development	2001/269	Not Controlled Action	Completed
Flinders Backlog Sewer Project	2005/2275	Not Controlled Action	Completed
Floating Observation Platform, Tooradin Channel	2006/2766	Not Controlled Action	Completed
Gas Field Development	2006/2635	Not Controlled Action	Completed
Gas Fields Development	2011/5879	Not Controlled Action	Completed
Gas Pipeline Installation	2005/2495	Not Controlled Action	Completed
Geelong Bypass Sections 1 & 2	2005/2097	Not Controlled Action	Completed
George Bass Drive Lilli Pilli Road Realignment	2021/8876	Not Controlled Action	Completed
Gippsland Basin Seismic Programme	2004/1866	Not Controlled Action	Completed
Gippsland Lakes Composting Toilet Program	2000/66	Not Controlled Action	Completed
Gleneig Spiny Crayfish Habitat Rehabilitation	2011/6164	Not Controlled Action	Completed
Golflinks Road Residential Development & Water Storage Facility at Barwon Heads	2004/1793	Not Controlled Action	Completed
Grevillea infecunda tip cuttings and soil samples	2005/1979	Not Controlled Action	Completed
Halladale and Speculant Gas Pipeline Project, North of Port Campbell, Vic	2015/7551	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Hemingway1/Oil Exploration	2001/177	Not Controlled Action	Completed
Henry-1 Exploration Well, Petroleum Permit Area VIC/P44	2005/2147	Not Controlled Action	Completed
Huxley Hill Wind Farm expansion	2005/2499	Not Controlled Action	Completed
Huxley Hill Wind Farm Expansion	2002/570	Not Controlled Action	Completed
Illuka Residential Estate	2007/3224	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Installation of a 35 metre telecommunications facility at Jirrahlinga Animal San	2003/1151	Not Controlled Action	Completed
Installation of optic fibre cable from Inverloch, Victoria to Stanley, Tasmania	2002/906	Not Controlled Action	Completed
Kelly Swamp Boardwalk Construction	2010/5371	Not Controlled Action	Completed
Kipper Tuna Turrum Project Maintenance Dredging	2010/5430	Not Controlled Action	Completed
Kongorong Wind Farm	2002/568	Not Controlled Action	Completed
Laslett Wind Farm	2007/3550	Not Controlled Action	Completed
Longtom-3 Gas Appraisal Well, VIC/P54	2005/2494	Not Controlled Action	Completed
Longtom Gas Pipeline Development, VIC/P54	2006/3072	Not Controlled Action	Completed
Lot 5 Pelican Point Road, Pelican Point SA - Proposed New Dwelling	2021/9011	Not Controlled Action	Completed
Maintenance and priority works to heritage buildings at Point Nepean Quarantine	2006/3151	Not Controlled Action	Completed
Maintenance dredging of Yaringa Channel	2004/1360	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Maintenance Dredging South Channel 2012	2011/6198	Not Controlled Action	Completed
Maintenance of Access Track and Weed Removal	2009/4973	Not Controlled Action	Completed
Maintenance works at Barwon Heads Bridge	2003/1199	Not Controlled Action	Completed
Marine and Freshwater Resources Institute (MAFRI) Facility	2000/121	Not Controlled Action	Completed
Marlin-Snapper Gas Pipeline Project	2006/3197	Not Controlled Action	Completed
Melville 1 Oil Exploration Well	2001/167	Not Controlled Action	Completed
Merricks Beach Backlog Sewer Project	2010/5300	Not Controlled Action	Completed
Millwood Road Gravel Quarry	2002/602	Not Controlled Action	Completed
Milton/Ulladulla Sewerage Scheme	2001/251	Not Controlled Action	Completed
Minerva Cut Back Project, Vic	2017/8036	Not Controlled Action	Completed
Multi-species Aquaculture Enterprise	2001/404	Not Controlled Action	Completed
Newfield wind farm	2007/3226	Not Controlled Action	Completed
Newhaven Yacht Squadron marina extension	2004/1450	Not Controlled Action	Completed
New Water Infrastructure Upgrade, Grassy Dam, King Island	2013/6882	Not Controlled Action	Completed
Nirranda South Wind Farm Pty Ltd	2002/763	Not Controlled Action	Completed
Northright-1 Exploration Well	2001/209	Not Controlled Action	Completed
Ocean Grove rising main 2 upgrade	2009/4978	Not Controlled Action	Completed
Ocean Grove Rising Main 2 Upgrade (OGRM2) - East Section & River Crossing	2010/5508	Not Controlled Action	Completed
Oceanlinx South Australia 1mW Greenwave Project	2012/6528	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Offshore exploration drilling within permit area VIC/P 37(v)	2004/1466	Not Controlled Action	Completed
Offshore Petroleum Exploration	2001/289	Not Controlled Action	Completed
Offshore Seismic Survey	2001/498	Not Controlled Action	Completed
Optic fibre cable installation - San Remo to Cowes	2005/2386	Not Controlled Action	Completed
Piccaninnie Ponds flow path restoration project, SA	2013/6711	Not Controlled Action	Completed
Pipeline easement regrowth removal	2011/5817	Not Controlled Action	Completed
Point Cooke Coastal Trail	2001/324	Not Controlled Action	Completed
Point Nepean Quarantine Station (former)/Restoration of Medical Superintendent's	2006/3149	Not Controlled Action	Completed
Port Campbell Headland Walking Trail Realignment	2012/6676	Not Controlled Action	Completed
Portland Landfill Borehole Installation, Vic	2017/7886	Not Controlled Action	Completed
Port Phillip Channel Deepening Project - Trial Dredge Program	2005/2164	Not Controlled Action	Completed
Port Welshpool Harbour Dredging	2007/3521	Not Controlled Action	Completed
Proposed replacement of existing road culvert	2013/7077	Not Controlled Action	Completed
Pump station upgrades and rising main construction, Lakes Entrance, Victoria	2016/7646	Not Controlled Action	Completed
Queenscliff Harbour Redevelopment	2004/1352	Not Controlled Action	Completed
Railway Bridge (H0151) Partial Demolition, Merri River	2010/5534	Not Controlled Action	Completed
Redevelopment Project to Upgrade and Extend the Portland Trawler Wharf	2008/4317	Not Controlled Action	Completed
refurbishment works to Badcoe Hall, Pt Neapean Quarantine Station (former)	2006/3152	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Rehabilitation of Lake Connewarre State Game Reserve	2002/708	Not Controlled Action	Completed
Remedial Works to the Swan Island Bridge	2003/1129	Not Controlled Action	Completed
Remote power generation project	2005/2287	Not Controlled Action	Completed
Removal of AMSA Structure	2003/1131	Not Controlled Action	Completed
Removal of Strzelecki Gum as part of the Regional Fast Rail Project	2006/2936	Not Controlled Action	Completed
Replacement of sewer pipelines	2002/623	Not Controlled Action	Completed
Residential/Resort/Golf Course development	2002/907	Not Controlled Action	Completed
Residential Development, 409 The Esplanade, St Leonards	2006/2950	Not Controlled Action	Completed
Residential Dwelling	2004/1896	Not Controlled Action	Completed
Restricted Recreation Facility - soccer pich, stadium and associated parking	2006/3034	Not Controlled Action	Completed
Robe Golf Club - Golf Course Extension, SA	2017/7928	Not Controlled Action	Completed
Robe Golf Course, Allotment 2, Davenport Street, Robe, SA	2014/7178	Not Controlled Action	Completed
Ryan Corner Wind Farm	2005/2142	Not Controlled Action	Completed
Ship to Ship Crude Oil Lightering	2001/271	Not Controlled Action	Completed
Sole-2 appraisal gas well, VIC/RL3	2002/636	Not Controlled Action	Completed
Sole gas field development	2003/937	Not Controlled Action	Completed
Sparrovale Wetland stormwater management, Armstrong Creek and Charlemont, VIC	2018/8375	Not Controlled Action	Completed
Spikey Beach 1, West Triton Drilling Program, Bass Basin Permit T/38P	2007/3914	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Stage 1 residential subdivision, Anna Catherine Drive	2005/1992	Not Controlled Action	Completed
St Quentin Consulting Pty Ltd /Residential development/305 Great Ocean Road, Jan Juc/VIC/Development	2014/7184	Not Controlled Action	Completed
Telstra optic fibre cable across Bass Strait - Sub bottom profiler Surve	2002/779	Not Controlled Action	Completed
Tenby Point Sewerage Pipeline	2001/406	Not Controlled Action	Completed
To construct a shared trail within the Arthurs Seat Road, road reserve south side from Mornington Fl	2004/1565	Not Controlled Action	Completed
Torquay Sewerage Strategy - pipe replacement between Torquay and the Black Rock	2004/1704	Not Controlled Action	Completed
To undertake maintenance dredging of the Toora Boat Ramp Channel, VIC	2014/7225	Not Controlled Action	Completed
Track construction - Great Ocean Walk	2002/793	Not Controlled Action	Completed
Transfer of 90ha Point Nepean Quarantine Station from Commonwealth to Victorian	2008/4521	Not Controlled Action	Completed
Turrum Phase 2 Development Project	2008/4191	Not Controlled Action	Completed
Upgrade and Repairs to Flinders Pier	2008/4331	Not Controlled Action	Completed
Upgrade of existing access track	2011/5933	Not Controlled Action	Completed
Upgrade of the existing Thornhill St Sewer Pump Station	2010/5618	Not Controlled Action	Completed
Venus Bay Outfall Extension	2004/1555	Not Controlled Action	Completed
VIC-P44 Stage 2 Gas Field Development	2007/3767	Not Controlled Action	Completed
Victorian Generator Project	2005/1984	Not Controlled Action	Completed
Wastewater Treatment System Upgrade	2004/1420	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Water capture to restore wetlands	2007/3223	Not Controlled Action	Completed
West Triton Drilling Program - Gippsland Basin	2007/3915	Not Controlled Action	Completed
West Triton Drilling Program - Otway Basin	2007/3909	Not Controlled Action	Completed
Wind Farm	2002/691	Not Controlled Action	Completed
Wind Farm Construction and Operation	2001/471	Not Controlled Action	Completed
Woakwine Wind Farm, SA	2011/6070	Not Controlled Action	Completed
Wooralla Drive pump station, pipeline and associated works	2005/2450	Not Controlled Action	Completed
Not controlled action (particular manner)			
'Moonlight Head' 3D seismic survey, VIC/P38(V), VIC/P43 and VIC/RL8	2005/2236	Not Controlled Action (Particular Manner)	Post-Approval
2D & 3D seismic survey T/39P	2005/2237	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey	2005/2295	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey, EPP33	2004/1794	Not Controlled Action (Particular Manner)	Post-Approval
2D Marine Seismic Survey in Permit Areas T/32P and T/33P	2002/845	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Aquisition Survey	2008/4041	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2003/1214	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
2D Seismic Survey	2008/4131	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/3962	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey	2008/4066	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey, Petroleum Exploration Permit Area EPP27	2006/2776	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey in the Sole gas field and adjacent acreage in the Gippsland Basin (VIC RL/3 & VIC/	2002/871	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey in VIC/P50 and VIC/P46	2004/1810	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey Permit Area VIC/P49	2006/2943	Not Controlled Action (Particular Manner)	Post-Approval
2D Seismic Survey Program in Bass Strait	2008/4040	Not Controlled Action (Particular Manner)	Post-Approval
2D seismic survey VIC/P50	2005/2313	Not Controlled Action (Particular Manner)	Post-Approval
2D Siesmic Marine Survey	2008/4074	Not Controlled Action (Particular Manner)	Post-Approval
3D marine seismic survey near King Island	2004/1461	Not Controlled Action (Particular Manner)	Post-Approval
3D Marine Seismic Survey within Torquay Sub-basin off sthn Victoria	2012/6256	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
3D seismic program VIC/P38(v), VIC/P43 and VIC/RL8	2003/1137	Not Controlled Action (Particular Manner)	Post-Approval
3D Seismic Survey	2008/4528	Not Controlled Action (Particular Manner)	Post-Approval
Apache 3D seismic exploration survey	2006/3146	Not Controlled Action (Particular Manner)	Post-Approval
Aroo Chappell 3D seismic survey	2010/5701	Not Controlled Action (Particular Manner)	Post-Approval
Astrolabe 3D Marine Seismic Survey	2011/6048	Not Controlled Action (Particular Manner)	Post-Approval
Barwon Heads Rising Main No.11 Sewerage Pipe Upgrade	2008/4091	Not Controlled Action (Particular Manner)	Post-Approval
Bass Basin 2D and 3D seismic surveys (T/38P & T/37P)	2007/3650	Not Controlled Action (Particular Manner)	Post-Approval
Bass Coast, South Gippsland and Cardinia Shires, Gas Pipeline and Lang Lang Offtake and City Gate St	2006/2867	Not Controlled Action (Particular Manner)	Post-Approval
Benbows Paddock residential development, Cape Bridgewater	2007/3247	Not Controlled Action (Particular Manner)	Post-Approval
Bernoulli 3D Seismic Survey	2006/3053	Not Controlled Action (Particular Manner)	Post-Approval
BHPBilliton Otway 3D Seismic Survey	2007/3443	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Bitumen Storage Facility	2007/3676	Not Controlled Action (Particular Manner)	Post-Approval
Bream 3D seismic survey	2006/2556	Not Controlled Action (Particular Manner)	Post-Approval
Collection of cast bull kelp	2002/813	Not Controlled Action (Particular Manner)	Post-Approval
construction of a 14km , 33kV distribution line, including connection to the Lake Bonney Central win	2003/1108	Not Controlled Action (Particular Manner)	Post-Approval
Construction of bridge across Barwon River	2006/2947	Not Controlled Action (Particular Manner)	Post-Approval
Construction of wharf	2003/1050	Not Controlled Action (Particular Manner)	Post-Approval
Construct private dwelling	2008/4234	Not Controlled Action (Particular Manner)	Post-Approval
Construct single dwelling	2008/4504	Not Controlled Action (Particular Manner)	Post-Approval
Controlled Burn, Understorey Clearance and Removal of UXO	2003/1030	Not Controlled Action (Particular Manner)	Post-Approval
Corio Bay Channel Safety Adjustment Program	2011/6208	Not Controlled Action (Particular Manner)	Post-Approval
Dalrymple 3D Seismic Survey	2010/5680	Not Controlled Action (Particular Manner)	Post-Approval
Deepwater Sorell Basin 2001 Non-Exclusive 2D Seismic Survey	2001/156	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
development of retirement village, Bellarine Lakes Golf Course, Bellarine Hwy	2006/3015	Not Controlled Action (Particular Manner)	Post-Approval
Drainage, Trenching & Cable Laying as Part of the Regional Fast Rail Project	2003/1133	Not Controlled Action (Particular Manner)	Post-Approval
Drill and Profile Exploration Well Somerset 1, License Area T34P	2009/5037	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf extension, NSW	2015/7582	Not Controlled Action (Particular Manner)	Post-Approval
Eden Breakwater Wharf Extension, NSW	2016/7828	Not Controlled Action (Particular Manner)	Completed
Enterprise Three-dimensional Transition Zone Seismic Survey, Victoria	2016/7800	Not Controlled Action (Particular Manner)	Post-Approval
Exploration drilling of the Craigow-1 and Tolpuddle-1 wells	2010/5725	Not Controlled Action (Particular Manner)	Post-Approval
Fuelbreak construction	2009/4915	Not Controlled Action (Particular Manner)	Post-Approval
Gas Pipeline	2000/20	Not Controlled Action (Particular Manner)	Post-Approval
Geelong Bypass Section 3	2005/2099	Not Controlled Action (Particular Manner)	Post-Approval
Geographe-A gas exploration well	2000/82	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Gippsland 2D Marine Seismic Survey - VIC/P-63, VIC/P-64 and T/46P	2009/5241	Not Controlled Action (Particular Manner)	Post-Approval
Golden Beach gas field development	2003/1031	Not Controlled Action (Particular Manner)	Post-Approval
Granville Wind Farm, TAS	2012/6585	Not Controlled Action (Particular Manner)	Post-Approval
Hydrocarbon exploration wells	2003/1062	Not Controlled Action (Particular Manner)	Post-Approval
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval
Inspection of project vessels for presence of invasive marine pests in Commonwealth waters off Victo	2012/6362	Not Controlled Action (Particular Manner)	Post-Approval
Installation of a 17x6m floating pontoon adjacent to existing boat ramp	2009/4842	Not Controlled Action (Particular Manner)	Post-Approval
Labatt 3D Seismic Survey T/47P Bass Strait	2007/3759	Not Controlled Action (Particular Manner)	Post-Approval
La Bella 3D Marine Seismic Survey, Otway Basin, VIC	2012/6683	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Entrance Sand Management Program Trial Dredging	2007/3694	Not Controlled Action (Particular Manner)	Completed
Lakes Entrance Sand Management Program Trial Dredging	2007/3852	Not Controlled Action (Particular Manner)	Post-Approval
Lakes Oil 3D Seismic Survey	2002/768	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Longtom-5 Offshore Production Drilling (Vic/L29), VIC	2012/6498	Not Controlled Action (Particular Manner)	Post-Approval
Longtom South -1 Exploration Drilling	2011/6217	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness PT 2	2006/3044	Not Controlled Action (Particular Manner)	Post-Approval
Luxury Cruise on the Gordon River, Tasmanian Wilderness WHA	2004/1846	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging of Oceanic Sand	2011/5932	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program	2009/4953	Not Controlled Action (Particular Manner)	Post-Approval
Maintenance Dredging Program 2012-21 in Port of Melbourne	2012/6332	Not Controlled Action (Particular Manner)	Post-Approval
Marine Farming Expansion, Macquarie Harbour, TAS		Manner)	
Non-exclusive 3-D Marine Seismic Survey, Bass Strait	2002/775	Not Controlled Action (Particular Manner)	Post-Approval
Northern Fields 3D Seismic Survey	2001/140	Not Controlled Action (Particular Manner)	Post-Approval
Origin Energy Silvereye-1 Exploration Drilling Programme	2010/5702	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
OTE10 2D Marine Seismic Survey	2009/5223	Not Controlled Action (Particular Manner)	Post-Approval
Otway Basin Exploration Drilling Campaign, Vic	2011/6125	Not Controlled Action (Particular Manner)	Post-Approval
Pelican 3D Marine Seismic Survey, Gippsland Basin, Vic	2017/8097	Not Controlled Action (Particular Manner)	Post-Approval
Point Wilson Explosives Area Waterside Infrastructure Remediation	2012/6376	Not Controlled Action (Particular Manner)	Post-Approval
Remove silt build up on existing swales around the perimeter of the Three Hummo	2010/5676	Not Controlled Action (Particular Manner)	Post-Approval
Residential Development and Associated Infrastructure at Port Fairy	2012/6687	Not Controlled Action (Particular Manner)	Post-Approval
Rockhopper-1 and Trefoil-2 Exploration Drilling in Permit Area T/18P	2009/4776	Not Controlled Action (Particular Manner)	Post-Approval
Santos 2D Seismic Survey VIC/P44 & VIC/P51	2003/1213	Not Controlled Action (Particular Manner)	Post-Approval
Santos Otway 3d Seismic VIC/P44	2007/3367	Not Controlled Action (Particular Manner)	Post-Approval
Schomberg 3D Marine Seismic survey	2007/3868	Not Controlled Action (Particular Manner)	Post-Approval
SEA Gas Project transmission pipeline	2001/513	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Exploration in Permit VIC/P41	2001/267	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Seismic Survey	2001/206	Not Controlled Action (Particular Manner)	Post-Approval
Seismic survey, Gippsland Basin	2001/525	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey in Petroleum Permit Area EPP27	2002/648	Not Controlled Action (Particular Manner)	Post-Approval
Seismic Survey VIC-P46	2002/826	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station construct gas pipeline and associated infrastructure	2009/5089	Not Controlled Action (Particular Manner)	Post-Approval
Shaw River Power Station Project - Water Supply Pipeline	2009/5091	Not Controlled Action (Particular Manner)	Post-Approval
Shearwater 2D and 3D marine seismic survey	2005/2180	Not Controlled Action (Particular Manner)	Post-Approval
Silvereye 3D Seismic Survey	2007/3551	Not Controlled Action (Particular Manner)	Post-Approval
Soil and Organic Recycling Facility	2005/2216	Not Controlled Action (Particular Manner)	Post-Approval
Southern Flanks 2D Marine Seismic Survey	2010/5288	Not Controlled Action (Particular Manner)	Post-Approval
Southern Gas Pipeline Project	2002/619	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
Southern Margins 3D Seismic Survey VIC/P55	2007/3780	Not Controlled Action (Particular Manner)	Post-Approval
Southern Margins T/35P and T/36P 3D Seismic Surveys	2007/3817	Not Controlled Action (Particular Manner)	Post-Approval
Speculant 3D Transition Zone Seismic Survey	2010/5558	Not Controlled Action (Particular Manner)	Post-Approval
Strike Oil NL Seismic Surveys	2000/107	Not Controlled Action (Particular Manner)	Post-Approval
supersonic missile launch facility	2000/120	Not Controlled Action (Particular Manner)	Post-Approval
Surface Geochemical Exploration Program, TAS	2010/5780	Not Controlled Action (Particular Manner)	Post-Approval
Tap Oil Ltd Molson 2D Seismic Survey T47P	2008/3967	Not Controlled Action (Particular Manner)	Post-Approval
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, Vic	2012/6565	Not Controlled Action (Particular Manner)	Post-Approval
Thylacine-A Exploration Well	2000/81	Not Controlled Action (Particular Manner)	Post-Approval
Torquay Sub-basin (VIC/P62) OTE12-3D Seismic Survey	2012/6655	Not Controlled Action (Particular Manner)	Post-Approval
Tuskfish 3D Seismic Survey, Bass Strait	2002/864	Not Controlled Action (Particular Manner)	Post-Approval
Undertake a three dimensional marine seismic survey	2010/5700	Not Controlled Action (Particular	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action (particular manner)			
		Manner)	
Upgrade of Arthur River Road	2003/930	Not Controlled Action (Particular Manner)	Post-Approval
Vegetation clearance and residential subdivision near Mt Gambier	2004/1370	Not Controlled Action (Particular Manner)	Post-Approval
Vic/P37(v) and Vic/P44 3D marine seismic survey	2003/1102	Not Controlled Action (Particular Manner)	Post-Approval
VIC P44 Gas Exploration Wells	2002/662	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 2D seismic survey	2002/811	Not Controlled Action (Particular Manner)	Post-Approval
Vic-P51 and Vic-P52 3D seismic survey	2002/799	Not Controlled Action (Particular Manner)	Post-Approval
West Seahorse Oil Development Project, Commonwealth waters offshore Victoria	2013/6973	Not Controlled Action (Particular Manner)	Post-Approval
Wolseley 3D seismic acquisition survey	2010/5703	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
2D & 3D Seismic Surveys - Permit Area - VIC/P50	2008/4517	Referral Decision	Completed
2D Seismic Survey	2008/3978	Referral Decision	Completed
3D Marine Seismic Survey	2011/6156	Referral Decision	Completed
3D Seismic Survey	2008/4014	Referral Decision	Completed
8 Lot Industrial Subdivision	2008/4527	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed
Alteration Reconstruction Restoration and Repairs to Buildings	2008/4179	Referral Decision	Completed
Beardie-1 Field wildcat oil well	2001/469	Referral Decision	Completed
Breeding program for Grey Nurse Sharks	2007/3245	Referral Decision	Completed
Darymple 3D Seismic Survey, Petroleum Exploration Permit T/41P	2010/5322	Referral Decision	Completed
Holloman 2010 Vic/P60 3D Seismic Acquisition Survey Program	2009/5251	Referral Decision	Completed
Kelly Channel Discharge, Macquarie Harbour, Tasmania	2017/8057	Referral Decision	Completed
Land clearing for stock grazing	2005/2176	Referral Decision	Completed
Longtom 5 Offshore Production Drilling (VIC/L29)	2012/6404	Referral Decision	Completed
Longtom-5 Offshore Production Drilling (Vic/L29)	2012/6413	Referral Decision	Completed
Offshore Tidal Energy Facility and Submarine Cable	2008/4480	Referral Decision	Referral Publication
Portland Wave Energy Project	2008/3946	Referral Decision	Completed
Residential Development Elizabeth Avenue, Rosebud West, VIC	2015/7603	Referral Decision	Completed
Shark 3D Seismic Survey	2007/3294	Referral Decision	Completed
Stanton 3D Marine Seismic Survey	2013/6764	Referral Decision	Completed
The Enterprise 3D Seismic Acquisition Survey, Otway Basin, VIC	2012/6545	Referral Decision	Completed
Upgrade of Corringle Road	2009/4825	Referral Decision	Completed
Upgrade of Services Infrastructure Point Nepean Quarantine Station	2008/4591	Referral Decision	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
VICP61 2D Marine Seismic Survey	2008/3975	Referral Decision	Completed
Wind Farm	2001/139	Referral Decision	Completed
Wolseley 3D Seismic Acquisition Survey in Permit T/32P	2010/5291	Referral Decision	Completed
Works to the buildings and surrounds at the former Point Nepean Quarantine Stati	2008/4156	Referral Decision	Completed

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region
Ancient coastline at 90-120m depth	South-west
Big Horseshoe Canyon	South-east
Bonney Coast Upwelling	South-east
Canyons on the eastern continental slope	Temperate east
Kangaroo Island Pool, canyons and adjacent shelf break, and Eyre Peninsula upwellings	South-west
Shelf rocky reefs	Temperate east
Upwelling East of Eden	South-east
West Tasmania Canyons	South-east

Biologically Important Areas

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus		
Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Seabirds		
Ardenna carneipes		
Flesh-footed Shearwater [82404]	Foraging	Known to occur
Ardenna grisea		
Sooty Shearwater [82651]	Breeding	Known to occur

Scientific Name	Behaviour	Presence
Ardenna grisea Sooty Shearwater [82651]	Foraging	Likely to occur
Ardenna grisea Sooty Shearwater [82651]	Foraging	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Breeding	Known to occur
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Breeding	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Likely to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging	Known to occur
Ardenna tenuirostris Short-tailed Shearwater [82652]	Foraging (in high numbers)	Known to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Likely to occur
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Foraging	Known to occur
Diomedea exulans antipodensis Antipodean Albatross [82269]	Foraging	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Known to occur
Eudyptula minor Little Penguin [1085]	Breeding	Likely to occur
Eudyptula minor Little Penguin [1085]	Foraging	Known to occur
Hydroprogne caspia Caspian Tern [808]	Foraging (provisioning young)	Known to occur

Scientific Name	Behaviour	Presence
Larus pacificus Pacific Gull [811]	Foraging	Known to occur
Macronectes giganteus Southern Giant Petrel [1060]	Foraging	Known to occur
Macronectes halli Northern Giant Petrel [1061]	Foraging	Known to occur
Morus serrator Australasian Gannet [1020]	Aggregation	Known to occur
Morus serrator Australasian Gannet [1020]	Foraging	Known to occur
Oceanites oceanites Wilsons Storm Petrel [1034]	Migration	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Breeding	Known to occur
Pelagodroma marina White-faced Storm-petrel [1016]	Foraging	Known to occur
Pelagodroma marina White-faced Storm petrel [1016]	Foraging (in high numbers)	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Breeding	Known to occur
Pelecanoides urinatrix Common Diving-petrel [1018]	Foraging	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Breeding	Known to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Likely to occur
Phalacrocorax fuscescens Black-faced Cormorant [59660]	Foraging	Known to occur

Scientific Name	Behaviour	Presence
Procellaria parkinsoni Black Petrel [1048]	Foraging	Likely to occur
Pterodroma macroptera Great-winged Petrel [1035]	Foraging	Likely to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Breeding	Known to occur
Pterodroma mollis Soft-plumaged Petrel [1036]	Foraging	Known to occur
Sternula nereis Fairy Tern [82949]	Foraging	Known to occur
Thalassarche bulleri Bullers Albatross [64460]	Foraging	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Breeding	Known to occur
Thalassarche cauta cauta Shy Albatross [82345]	Foraging likely	Likely to occur
Thalassarche cauta steadi White-capped Albatross [82344]	Foraging	Known to occur
Thalassarche chlororhynchos bassi Indian Yellow-nosed Albatross [85249]	Foraging	Known to occur
Thalassarche melanophris Black-browed Albatross [66472]	Foraging	Known to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Likely to occur
Thalassarche melanophris impavida Campbell Albatross [82449]	Foraging	Known to occur
Thalasseus bergii Crested Tern [83000]	Breeding	Known to occur
Thalasseus bergii Crested Tern [83000]	Foraging	Likely to occur

Scientific Name	Behaviour	Presence
Seals		
Neophoca cinerea Australian Sea Lion [22]	Foraging (male)	Known to occur
Neophoca cinerea Australian Sea Lion [22]	Foraging (male and female)	Known to occur
Sharks		
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur
Carcharias taurus Grey Nurse Shark [64469]	Migration	Known to occur
Carcharodon carcharias White Shark [64470]	Breeding (nursery area)	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution	Likely to occur
Carcharodon carcharias White Shark [64470]	Distribution	Known to occur
Carcharodon carcharias White Shark [64470]	Distribution (low density)	Likely to occur
Carcharodon carcharias White Shark [64470]	Foraging	Known to occur
Carcharodon carcharias White Shark [64470]	Known distribution	Known to occur
Whales		
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging	Likely to be present
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (abundant food source)	Known to occur

Scientific Name	Behaviour	Presence
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Foraging (annual high use area)	Known to occur
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Known Foraging Area	Known to occur
Megaptera novaeangliae Humpback Whale [38]	Foraging	Known to occur
Physeter macrocephalus Sperm Whale [59]	Foraging likely (abundant food source)	Known to occur

Bioregional Assessments

SubRegion	BioRegion	Website
Gippsland	Gippsland Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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APPENDIX C CONSULTATION ARTIFACTS

Appendix C1: Consultation Report

- The relevant person/organisation ID
- Their functions, interests, or activities
- Communications
- Summary of each response

Appendix C2: Objections or claims under section 24

- Relevant person ID (Stakeholder ID)
- Objection/claim
- Assessment of merit
- Response and measures adopted

Appendix C3: Supplementary Evidence

- In further support of the regulatory requirements, ConocoPhillips Australia has undertaken additional efforts and methods to reach relevant person in the community and raise awareness of the ability to self-identify through various mediums.
- Evidence that is associated with multiple people such as project updates.

Appendix C4: First Nations Consultation Report

- Communal interest facilitated a tailored, fit-for-purpose method of consultation. Which was adopted to reasonably reflect the characteristics of the interests affected by the proposed activity.

Appendix C5: Commercial Fishers Consultation Report

- Communal interest facilitated a tailored, fit-for-purpose method of consultation. Which was adopted to reasonably reflect the characteristics of the interests affected by the proposed activity.

ConocoPhillips

Appendix C

ConocoPhillips

C1: Consultation Report

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1085	Community Session	15/03/2023 15:41	Community drop-in session held at King Island. Wednesday 15 March, 11.30-2.30 3-7pm.
2843	Community Session	16/03/2023 8:59	Community drop-in sessions held at Burnie Tas. Thursday 16 March, 11.30-5pm.
1087	Community Session	17/04/2023 16:18	Community Information Session held at Warrnambool, Monday 17 April, 6-8pm. Collaborative Session held with Regia 3D MSS.
1089	Community Session	18/04/2023 8:32	Community Information Session held at Portland Tuesday 18th April, 12 - 2pm. Collaborative session held with Regia 3D MSS.
1091	Community Session	19/04/2023 9:46	Community Information Session held at Peterborough, Wednesday 19 April, 12-2pm. Collaborative session held with Regia 3D MSS.
1095	Community Session	19/04/2023 9:55	Community Information Session held at Port Campbell, Wednesday 19 April, 6-8pm. Collaborative session held with Regia 3D MSS.
1096	Community Session	20/04/2023 9:59	Community Information Session held at Apollo Bay, Thursday 19 April, 6-8pm. Collaborative session held with Regia 3D MSS.
1180	Community Session	2/05/2023 10:03	Community Information session held at Port Fairy, Tuesday 2 May, 6-8pm. Collaborative session held with Regia MSS.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1197	Campaign Email	15/05/2023 15:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1304	Community Session	17/05/2023 9:19	Community Information Session held at King Island, Wednesday 17 May, 6-8pm.
1220	Campaign Email	17/05/2023 13:16	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1221	Campaign Email	18/05/2023 13:46	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program

Id	Event Type	Start Date	Summary
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1238	Campaign Email	19/05/2023 14:45	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1266	Campaign Email	22/05/2023 15:59	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1329	Webinar	23/05/2023 9:58	Webinar hosted by ConocoPhillips Australia. Provided Overview of proposed Otway Exploration Drilling Program, Regulatory Framework, the drilling process and the Preliminary Environmental Risk and Impact Assessment.
1309	Campaign Email	23/05/2023 9:59	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1364	Community Session	29/05/2023 10:20	Community information session held at Warrnambool. Monday 29 May 6-8pm. Collaborative Session held with Regia 3D MSS.
2527	Community Session	29/05/2023 15:40	Warrnambool Fishers Information Session. Warrnambool, Monday 29 May 3-5pm. Collaborative session with Regia 3D MSS.
1633	Community Session	30/05/2023 16:21	Community information session held at Port Fairy, Tuesday 30 May 6-8pm. Collaborative session held with Regia 3D MSS.
1635	Community Session	31/05/2023 8:07	Portland Fishers Information Session held at Portland, Wednesday 31 May, 3pm-5pm. Collaborative session with Regia 3D MSS.
1636	Community Session	31/05/2023 8:13	Community Information Session held at Portland, Wednesday 31 May 6-8pm. Collaborative session held with Regia 3D MSS.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1650	Campaign Email	12/06/2023 14:54	OUTGOING EMAIL: Project Update - June 2024 PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023 15:13	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023 16:52	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program

Id	Event Type	Start Date	Summary
1792	Community Session	19/06/2023 11:15	Community Information Session held at Peterborough, Monday 19 June, 12-2pm. Collaborative session held with Regia 3D MSS.
1793	Community Session	19/06/2023 18:00	Community Information Session held at Port Campbell, Monday 19 June, 6-8pm. Collaborative session held with Regia 3D MSS.
1791	Community Session	20/06/2023 10:40	Community Information Session held at the Apollo Bay, Tuesday 20 June 6-8pm.
1829	Campaign Email	30/06/2023 16:03	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2642	Community Session	13/07/2023 9:45	Community Information Session held at King Island, Thursday 13 July 6-8pm.
2641	Community Session	13/07/2023 9:45	Community Information Session held at King Island. Thursday 13 July 11am-1pm.
2643	Community Session	13/07/2023 10:01	King Island Fishers Information Session held at King Island, Thursday 13 July, 3-5pm.
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2844	Webinar	26/07/2023 9:10	WEBINAR hosted by ConocoPhillips Australia. Provided overview of proposed Otway Exploration Drilling Program, Regulatory Framework, and overview of consultation feedback to-date, and answered questions.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation

Id	Event Type	Start Date	Summary
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3481	Webinar	20/09/2023 8:15	WEBINAR to cover assessments covered in the EP.
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4832	Webinar	15/11/2023 8:21	WEBINAR: The fourth Webinar as part of the ConocoPhillips Australia Otway Exploration Drilling Program consultation process. It covered the proposed exploration drilling program, an overview of on consultation approach and consultation milestones to-date and an overview of next steps as the Environment Plan is submitted for public comment.
4830	Campaign Email	15/11/2023 12:58	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**5**
Name of Organisation	Colac Otway Shire Council
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Local Council located within planning area. The council opposes seismic testing for oil and gas in the Otway Basin.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 5 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
823	Email	9/02/2023	OUTGOING EMAIL to stakeholder advising of ConocoPhillips Australia Otway Exploration Drilling Program
803	Email	9/02/2023	OUTGOING EMAIL: to stakeholder with notification of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
2572	Email	9/02/2023	OUTGOING EMAIL to stakeholder as initial contact regarding Otway exploration drilling program and environmental plan information with attached documents.
2573	Email	16/02/2023	INCOMING EMAIL from stakeholder's support staff to confirm information has been received and requesting meeting regarding the exploration.
1520	Telephone call	16/02/2023	OUTGOING TELEPHONE CALL: Team member called to speak with Executive Assistant in response for request for meeting. Spoke with receptionist who put the call through to EA. No answer so team member left a message about setting up meeting and requested a call back.
2588	Email	16/02/2023	INCOMING EMAIL from stakeholder's EA providing availability for meeting.
40	Email	16/02/2023	OUTGOING EMAIL in response to request for briefing.
41	Email	16/02/2023	OUTGOING EMAIL in response to stakeholders meeting confirmation.
42	Email	20/02/2023	OUTGOING EMAIL to stakeholder confirming meeting date and time.
582	Meeting - Virtual	3/03/2023	MEETING VIRTUAL: Briefing to government organisation on proposed Otway Exploration Drilling Program and discussion about consultation approach for EP development. -
559	Email	6/03/2023	OUTGOING EMAIL to stakeholder following a meeting and confirming preferred approach to sharing documents for governance reasons.
4585	Email	6/03/2023	INCOMING EMAIL: from stakeholder re who manages the inbox and email address
573	Email	8/03/2023	OUTGOING EMAIL with attachments for review: Meeting Notes ConocoPhillips Australia Otway Exploration Drilling Briefing
4586	Email	9/03/2023	INCOMING EMAIL: from stakeholder who confirms receipt of meeting notes and that they have shared with councillors
2577	Email	14/03/2023	OUTGOING EMAIL to stakeholder regarding follow-up briefing for Otway exploration program.
2578	Email	23/03/2023	INCOMING EMAIL: from Stakeholder with apology for delayed response and availability for a meeting
2579	Email	24/03/2023	OUTGOING EMAIL: Responded to stakeholders availability for briefing.
2580	Email	28/03/2023	INCOMING EMAIL: Stakeholder responded with a preferred time for briefing.
2571	Email	28/03/2023	OUTGOING EMAIL: Responded to stakeholders preferred time for briefing.
2537	Meeting - Virtual	28/04/2023	MEETING VIRTUAL: Briefing to local government organisation to provide update on environmental planning and community consultation.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1363	Email	30/05/2023	OUTGOING EMAIL: to stakeholder with Draft meeting notes for review
4587	Email	30/05/2023	INCOMING EMAIL: from stakeholder requesting written update re predictions of impact and risk assessment and feedback
1398	Email	31/05/2023	OUTGOING EMAIL: Response to stakeholder's request for a written update regarding the predictions of the impact and risk assessment and feedback from the ongoing consultation.
1521	Telephone call	5/06/2023	OUTGOING TELEPHONE CALL to organisation; call transferred to executive office, but no answer, so left a voice message asking to contact us via phone call.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1705	Email	16/06/2023	OUTGOING EMAIL: to stakeholder re Upcoming community information session
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
2297	Email	10/07/2023	Outgoing email - Follow up on offer to brief prior to release of the EP chapters.
4588	Email	12/07/2023	INCOMING EMAIL: from stakeholder with follow up on offer to brief Council prior to release of the EP chapters
2360	Email	12/07/2023	OUTGOING EMAIL: to stakeholder with follow up on offer to brief prior to release of the EP chapters
2501	Email	19/07/2023	OUTGOING EMAIL: to stakeholder to confirm arrangements for next brieifing.
3896	Email	19/07/2023	INCOMING EMAIL: stakeholder asked if meeting can be slightly shorter.
4589	Email	19/07/2023	OUTGOING EMAIL: to stakeholder with note that the meeting invitation will be updated to accommodate request for shorter meeting
2665	Meeting - Virtual	24/07/2023	MEETING VIRTUAL to provide a project update briefing to organisation.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2667	Email	1/08/2023	OUTGOING EMAIL: to stakeholder with meeting notes for review and contribution
2698	Email	1/08/2023	INCOMING EMAIL: Individual acknowledged receipt of notes from meeting.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3407	Email	24/08/2023	INCOMING EMAIL: Received auto reply
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3299	Email	31/08/2023	INCOMING EMAIL: Auto Reply
3368	Email	14/09/2023	OUTGOING EMAIL: to stakeholder with response to objections and claims
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**6**
Name of Organisation	Tuna Australia
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Tuna Australia works with commercial tuna fishers and processors to ensure a sustainable and profitable industry. Also representing the interests of various members through consultation.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 6 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
106	Email	25/11/2022	INCOMING EMAIL: from stakeholder with acknowledgement of email and wanting to work with us and attached service agreement
4251	Email	8/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program
1719	Email	8/02/2023	INCOMING EMAIL: from stakeholder re reviewing EP submissions and providing up to date industry commentary
1497	Telephone call	16/02/2023	OUTGOING TELEPHONE CALL to stakeholder. Left a voice message to contact us via phone call or email.
76	Telephone call	22/02/2023	OUTGOING TELEPHONE CALL to stakeholder. No answer so left message about response to initial correspondence requesting fee-for-service arrangement.
108	Telephone call	23/02/2023	INCOMING TELEPHONE CALL from stakeholder. Received return call regarding their request for a fee-for-service arrangement.
109	Email	23/02/2023	OUTGOING EMAIL: to stakeholder with follow up re call and link to commonwealth fishery data
4435	Email	27/02/2023	INCOMING EMAIL: from individual with thanks for notifications and request that all proposals be directed to another org
479	Email	28/02/2023	OUTGOING EMAIL: to stakeholder with response to request to contact an organisation based on initial provision of information.
480	Email	28/02/2023	OUTGOING EMAIL: to stakeholder confirming that an org will be contacted as relevant person
482	Email	28/02/2023	INCOMING EMAIL: Response from stakeholder confirming they will be represented by fishing representative.
483	Email	28/02/2023	OUTGOING EMAIL: Individual will be represented by fishing representatives.
504	Email	28/02/2023	INCOMING EMAIL: To be consulted by fishing representative.
4433	Email	28/02/2023	INCOMING EMAIL: from individual requesting all correspondence be directed through another stakeholder
511	Email	28/02/2023	OUTGOING EMAIL: Response to stakeholders request to engage directly through another fishing representative
512	Email	28/02/2023	OUTGOING EMAIL: to individual noting response to opt out and have another stakeholder represent interests.
513	Telephone call	28/02/2023	OUTGOING TELEPHONE CALL: to stakeholder to discuss concession holders requests to engage through organisation for EP consultation.
4436	Email	2/03/2023	INCOMING EMAIL: from individual requesting information be received via industry body
531	Email	2/03/2023	OUTGOING EMAIL: Attempt to confirm stakeholder interests and information updates regarding the EP
4327	Email	3/03/2023	INCOMING EMAIL: from stakeholder re rescheduling meeting time
546	Email	3/03/2023	OUTGOING EMAIL: to stakeholder with response to request to change scheduled meeting time.
514	Email	3/03/2023	OUTGOING EMAIL: to stakeholder with meeting link to Discuss fee-for-service arrangement to represent the interests of concession holders
557	Email	6/03/2023	OUTGOING EMAIL: to stakeholder with follow up re meeting with attached meeting notes for review
685	Email	23/03/2023	INCOMING EMAIL: from stakeholder with industry position statement attached
686	Email	23/03/2023	OUTGOING EMAIL: to stakeholder to confirm they only sent the position statement. Cannot locate proposal for consultation pages
4328	Email	23/03/2023	INCOMING EMAIL: from stakeholder re providing service agreement
4329	Email	23/03/2023	OUTGOING EMAIL: to stakeholder re service agreement
697	Email	27/03/2023	OUTGOING EMAIL: Follow-up email sent to confirm meeting notes.
703	Email	28/03/2023	INCOMING EMAIL: Meeting notes agreed by stakeholder
702	Email	28/03/2023	OUTGOING EMAIL: to stakeholder with accepted copy of meeting minutes
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1185	Email	11/05/2023	INCOMING EMAIL: Correspondence with organisation around representation by Tuna Australia.
4491	Email	11/05/2023	INCOMING EMAIL from relevant stakeholder confirming who is representing tina fisheries.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1966	Email	8/06/2023	INCOMING EMAIL: Stakeholder requested to be removed from contact list and instead hold consultation through parent stakeholder. Provided stakeholder with links and attached information documents as well as advised that all updates are posted to consultation hub.
1930	Email	27/06/2023	INCOMING EMAIL: Energy company requesting information about other companies that have contact fee-for-service with.
1931	Email	4/07/2023	OUTGOING EMAIL: Team has no issue of disclosing we have a fee-for-service arrangement to other energy company.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2631	Email	30/07/2023	INCOMING EMAIL: Individual requested removal from mailing list and consult another stakeholder instead
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3173	Email	29/08/2023	INCOMING EMAIL: Individual advised to consult with another entity and remove them from mailing lists.

3176	Email	30/08/2023	INCOMING EMAIL: Individual advised representative organisation would be representing them in consultation
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3271	Email	11/09/2023	OUTGOING EMAIL: to stakeholder regarding feedback on EP chapters
3812	Email	26/09/2023	INCOMING EMAIL: Stakeholder replied to registered post with email confirming being represented by Tuna Australia
3890	Email	26/09/2023	INCOMING EMAIL: Individual asked to be taken off mailing list and to consult other stakeholder.
4330	Email	26/09/2023	OUTGOING EMAIL: to stakeholder with follow up re EP chapters and offering meeting to discuss feedback
4254	Email	27/09/2023	INCOMING EMAIL: from stakeholder re arranging a meeting to clarify requirements
3825	Email	27/09/2023	OUTGOING EMAIL: to stakeholder confirming availability of meeting will be disclosed as soon as possible.
3849	Email	28/09/2023	OUTGOING EMAIL: to stakeholder re organising the meeting.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4174	Meeting - Virtual	4/10/2023	Virtual meeting with organisation to provide a high level briefing about the draft EP chapters
3900	Email	4/10/2023	INCOMING EMAIL: Individual asking four business to be taken off and correspond with other stakeholder.
3895	Email	4/10/2023	OUTGOING EMAIL: Clarifying if the four companies wish to be taken off relevant stakeholder.
3989	Email	6/10/2023	OUTGOING: Email sent to stakeholder draft meeting notes attached for individuals response.
4255	Email	6/10/2023	OUTGOING EMAIL: to stakeholder with draft meeting notes and slides attached. --- MERGED --- OUTGOING EMAIL: to stakeholder confirming receipt of amending meeting notes, discussion of commitment to keeping commercial fishers informed and note that looking forward to receiving members' feedback
4256	Email	9/10/2023	INCOMING EMAIL: from stakeholder with amendments to draft meeting notes
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4526	Email	31/10/2023	INCOMING EMAIL: sent from stakeholder with consultation report from representative organisation regarding the otway exploration drilling program. Stakeholder commented that the support materials provided by the team as well as website are exceptional.
4636	Email	7/11/2023	OUTGOING EMAIL: Email sent to stakeholder with formal letter with response to objections and claims raised.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**7**
Name of Organisation	Director Of National Parks (DNP)
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	The Director of National Parks is the statutory authority responsible for administration, management and control of Australian marine parks. Under the EPBC Act and subordinate regulations, a range of activities undertaken in an Australian marine park requires approval from the Director of National Parks.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 7 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1683	Email	17/01/2023	INCOMING EMAIL: Received the stakeholder's 2022 activities report.
2495	Email	25/01/2023	OUTGOING EMAIL: Emailed stakeholder requesting a meeting and providing availability.
1687	Email	30/01/2023	INCOMING EMAIL: Stakeholder responded confirming meeting availability.
1264	Email	30/01/2023	INCOMING EMAIL: from stakeholder advising on meeting availability.
758	Email	3/02/2023	OUTGOING EMAIL: Advice of start of ConocoPhillips Australia Otway Exploration Drilling Program with attached documents.
1265	Email	6/02/2023	OUTGOING EMAIL to stakeholder re meeting arrangements.
1715	Email	6/02/2023	INCOMING EMAIL from stakeholder accepting reschedule and selected new meeting time.
1721	Email	9/02/2023	INCOMING EMAIL from Stakeholder requesting shapefiles or mapping for feedback.
1457	Telephone call	14/02/2023	INCOMING PHONE CALL: Stakeholder has responded to email sent.
485	Email	24/02/2023	INCOMING EMAIL: seeking input on the draft Petroleum Activities - Australian Marine Parks guidance note
1757	Email	24/02/2023	INCOMING EMAIL: Stakeholder follow up on request for shapefiles or mapping.
486	Email	28/02/2023	OUTGOING EMAIL: Response to follow up request from stakeholder requesting shapefiles or mapping indicating timeline.
572	Email	7/03/2023	OUTGOING EMAIL: To stakeholder providing meeting notes for review. Acknowledged further information that stakeholder requested will be delivered in a week.
2496	Email	9/03/2023	INCOMING EMAIL: Stakeholder responded and approved of meeting notes. Stakeholder did provide consultation guidance.
586	Email	9/03/2023	OUTGOING EMAIL to stakeholder responding to comments on agreed meeting notes and attaching documents.
641	Email	13/03/2023	INCOMING EMAIL: from stakeholder following information about project and outlining issues to do with underwater cultural heritage. Documents attached.
654	Email	20/03/2023	OUTGOING EMAIL - Contacted stakeholder regarding consultation on Offshore Environment Plan: ConocoPhillips Australia Proposed Otway Exploration Drilling Program
2498	Email	20/03/2023	INCOMING EMAIL: Stakeholder responded positively to the attachments sent, requested for cloud-based information to be sent via zip file.
657	Email	20/03/2023	OUTGOING EMAIL: to stakeholder, providing requested zip file information: Consultation on Offshore Environment Plan: ConocoPhillips Australia Proposed Otway Exploration Drilling Program. Including attachments of associated maps which were provided in multiple subsequent emails.
2479	Email	21/04/2023	INCOMING EMAIL - Stakeholder sent updated information regarding positioning and committed actions.
2480	Email	21/04/2023	INCOMING EMAIL: Response from Stakeholder regarding operational area.
2470	Email	21/04/2023	INCOMING EMAIL from stakeholder providing Initial feedback including objections and claims received.
1025	Telephone call	26/04/2023	INCOMING TELEPHONE CALL. Spoke with stakeholder regarding the close out of the Sequoia EP and Drilling EP.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2338	Email	11/07/2023	OUTGOING EMAIL responding to stakeholder sharing updated information regarding Otway Exploration Drilling Program
2621	Email	27/07/2023	INCOMING EMAIL - Response from stakeolder suggesting a meeting the week commencing 7 August.

2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3055	Email	24/08/2023	OUTGOING EMAIL - Correspondence with stakeholder around meeting notes, including sending agreed notes as attachment.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3824	Email	27/09/2023	OUTGOING EMAIL: sent to stakeholder responding to feedback received with formal letter detailing ConocoPhillips response to objections and claims raised. Attached letter and accompanying documents.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**8**
Name of Organisation	Australian Maritime Safety Authority (AMSA)
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	AMSA is the statutory and control authority for maritime safety and vessel emergencies in Commonwealth Waters. The proposed activity is in commonwealth waters.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 8 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
105	Email	25/11/2022	INCOMING EMAIL: Acknowledging email received.
750	Email	3/02/2023	OUTGOING EMAIL to stakeholder with attached correspondence and information re ConocoPhillips Australia Otway Exploration Drilling Program
748	Email	3/02/2023	OUTGOING EMAIL to stakeholder with attached correspondence and information
747	Email	3/02/2023	OUTGOING EMAIL - Notice to Stakeholder re ConocoPhillips Australia Otway Exploration Drilling Program
4865	Email	3/02/2023	OUTGOING EMAIL: Sent to stakeholder regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included personalised letter and attached relevant information documents.
1273	Email	3/02/2023	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1447	Telephone call	13/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1448	Telephone call	14/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1452	Telephone call	14/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1453	Telephone call	14/02/2023	OUTGOING CALL: To organisation to confirm contact details.
1466	Telephone call	14/02/2023	OUTGOING CALL: To confirm receipt of initial correspondence.
830	Email	14/02/2023	OUTGOING EMAIL - Resent initial notice re : ConocoPhillips Australia Otway Exploration Drilling Program with attachments
1736	Email	15/02/2023	INCOMING EMAIL acknowledging receipt of information and requesting ESRI shapefile information.
1739	Email	15/02/2023	INCOMING AND OUTGOING EMAIL: providing information requested by stakeholder following initial notice of ConocoPhillips Australia Otway Exploration Drilling Program [SEC=OFFICIAL]
36	Email	15/02/2023	OUTGOING EMAIL - Response to request for mapping with requested material attached.
484	Email	21/02/2023	INCOMING EMAIL providing vessel traffic plot through permits for consideration in EP, together with other issues for following through.
538	Email	2/03/2023	INCOMING EMAIL: from organisation with cc to stakeholder
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2602	Email	26/07/2023	OUTGOING EMAIL: Responding to stakeholder re initial objections, claims and requests.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3089	Email	29/08/2023	OUTGOING EMAIL with project update and information about further opportunities to give feedback.
3091	Email	29/08/2023	OUTGOING EMAIL with project update and information as to how to provide further feedback.
4866	Email	29/08/2023	OUTGOING EMAIL: Sent to stakeholder with project update for August.
3147	Email	29/08/2023	OUTGOING EMAIL - Project Update with information as to how to make further comment - ConocoPhillips Australia Otway Exploration Drilling Program.
3149	Telephone call	29/08/2023	OUTGOING TELEPHONE CALL: Attempted to verify correct email address.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3402	Email	4/09/2023	INCOMING EMAIL outlining request to adhere to rules and contacts for vessels.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4875	Email	28/11/2023	INCOMING EMAIL: Sent from stakeholder replying to notice of public comment. Stakeholder confirmed their previous advice remains unchanged and attached the previous consultation.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4903	Email	20/12/2023	INCOMING EMAIL: Sent from stakeholder regarding vessel traffic plot showing heavy vessel traffic encountered within both VIC/P79 and T/49P permits. stakeholder provided details for who needs to be provided notifications and at what time.

Organisation Id	**9**
Name of Organisation	University of Tasmania (UTAS)
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	University that has historically undertaken marine conservation research pertaining to offshore petroleum exploration activities.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Research and Academic Institutions
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 9 - Consultation Summary

Id	Event Type	Start Date	Summary
4629	Meeting - In-person	28/07/2022	Attended in-person presentation at University to understand ongoing research focuses and share information about future plans in Otway Basin.
2692	Email	29/07/2022	INCOMING EMAIL: Email from individual connecting ConocoPhillips to presenters from previous days presentation.
2696	Email	29/07/2022	INCOMING EMAIL: Individual provided presentation
2693	Email	29/07/2022	OUTGOING EMAIL: Email to individual thanking University for previous days presentation.
2694	Email	29/07/2022	INCOMING EMAIL: Received slide deck and research papers from presenter
2695	Email	4/08/2022	OUTGOING EMAIL: Responded to presenter thanking them for information provided.
2700	Email	22/08/2022	OUTGOING EMAIL: Emailed individual to follow-up on release of research.
2701	Email	22/08/2022	INCOMING EMAIL: Individual responded and advised research was not yet able to be released and provided guidance on realistic timeline for availability.
2704	Email	23/08/2022	OUTGOING EMAIL: Responded to individual regarding release of research.
4458	Email	22/11/2022	OUTGOING EMAIL: Request sent to individual regarding Tasmanian fishery data for use in future exploration drilling EP, including possibility of fee-for-service arrangement for data provision.
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4462	Email	29/11/2022	INCOMING EMAIL: Received from individual regarding data request advising they had been ill but confirmed they would make enquiries.
4464	Email	30/11/2022	OUTGOING EMAIL: Sent to individual wishing them speedy recovery and requesting to keep us updated on the fisheries data.
4466	Email	12/12/2022	INCOMING EMAIL: Received from individual requesting previously scheduled meeting be postponed and providing update on data request.
4469	Email	5/02/2023	INCOMING EMAIL: received from individual requesting that meeting be rescheduled.
7	Email	6/02/2023	OUTGOING EMAIL: Responding to individual request to reschedule meeting providing alternative new dates.
805	Email	9/02/2023	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1410	Email	9/02/2023	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1727	Email	9/02/2023	INCOMING EMAIL: sent from stakeholder regarding commenced preparation of an environment plan. Stakeholder requested to hear from us and discuss potential engagement in the environmental assessments.
43	Meeting - Virtual	20/02/2023	VIRTUAL MEETING with individual. Confirmed they have received notice of Drilling EP.
1534	Telephone call	20/02/2023	OUTGOING TELEPHONE CALL. no answer. Left voice message to call back.

1535	Telephone call	20/02/2023	OUTGOING TELEPHONE CALL. Stakeholder is keen to help but also to find out more information. Sent through a request to stakeholder team for return call.
44	Telephone call	20/02/2023	OUTGOING TELEPHONE CALL to stakeholder. NO answer so left message in response to action from verification calls.
45	Email	20/02/2023	OUTGOING EMAIL: sent to stakeholder as they were commented as likely having a range of questions. Provided contact details for a discussion, Also flagged that the team would be in their area at the start of march if they wanted an in person meeting.
83	Email	20/02/2023	INCOMING EMAIL: Individual acknowledged receiving email about company commenced preparation of an EP
4472	Email	21/02/2023	INCOMING EMAIL: sent from stakeholder acknowledging missed call, requested information as to the extent of planning progression regarding environmental plan. Stakeholder also interested in mapping information. Stakeholder noted availability for meeting.
48	Email	21/02/2023	OUTGOING EMAIL: sent to stakeholder regarding an answer to correspondence in previous emails. Drilling targets are unchosen as of yet. A meeting can definitely occur in person regarding the drilling program.
71	Email	22/02/2023	OUTGOING EMAIL: sent to stakeholder thanking them for catch up. Followed up about accessing fishing data or at least providing guidance on gaining access/making the request.
517	Email	28/02/2023	OUTGOING EMAIL: sent to stakeholder requesting meeting, asked if stakeholders had a preferred meeting time.
4476	Email	1/03/2023	INCOMING EMAIL: sent from stakeholder noting that they would be free and would be available based around what works for our team in response to previous correspondence.
528	Email	2/03/2023	OUTGOING EMAIL: sent to stakeholder following up on meeting request correspondence providing exact date and time availability for meeting.
560	Telephone call	6/03/2023	OUTGOING TELEPHONE CALL to stakeholder. No answer. Left message following up on request for meetings.
4477	Email	7/03/2023	INCOMING EMAIL: sent from stakeholder noting they have quite a few meetings during requested time but that they may be able to move things around to suite if it is the only available time.
4485	Email	7/03/2023	OUTGOING EMAIL: sent to stakeholder clarifying exact availability for a meeting responding to previous correspondence from stakeholder being unsure of being able to make a meeting time work.
579	Email	8/03/2023	OUTGOING EMAIL: sent to stakeholder attempting to reclarify meeting time. Provided an overview of what the team wishes to discuss with the stakeholder.
4487	Email	9/03/2023	INCOMING EMAIL: sent from stakeholder providing another available time for meeting in response to previous correspondence about scheduling an in person meeting.
4488	Email	9/03/2023	OUTGOING EMAIL: sent to stakeholder confirming meeting time and promised to send through an invite.
587	Email	21/03/2023	OUTGOING EMAIL: sent to stakeholder with meeting request and agenda.
680	Email	21/03/2023	OUTGOING EMAIL: Sent meeting notes for review and contribution
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

1209	Social Pinpoint Webinar Registration	15/05/2023	SOCIAL PINPOINT WEBINAR REGISTRATION Stakeholder registered for future webinars
1221	Campaign Email	18/05/2023	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1237	Social Pinpoint Webinar Registration	18/05/2023	SOCIAL PINPOINT WEBINAR REGISTRATION Stakeholder registered for future webinars
1238	Campaign Email	19/05/2023	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1329	Webinar	23/05/2023	Webinar hosted by ConocoPhillips Australia. Provided Overview of proposed Otway Exploration Drilling Program, Regulatory Framework, the drilling process and the Preliminary Environmental Risk and Impact Assessment.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1714	Meeting - Virtual	16/06/2023	Meeting: ConocoPhillips Australia, required rescheduling.
1927	Campaign Email	4/07/2023	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3415	Email	24/08/2023	INCOMING EMAIL: Received out of office automated reply from individual.
3403	Email	24/08/2023	INCOMING EMAIL: Received Out of Office automated reply.
3344	Email	29/08/2023	INCOMING EMAIL: Individual sharing poster that was made for 2008 APPEA conference
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3341	Email	12/09/2023	OUTGOING EMAIL: Emailed individuals enquiring about feedback/ objections and claims on draft EP chapter
3352	Email	12/09/2023	OUTGOING EMAIL: Provided response to objections and claims made throughout consultation.
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
4647	Email	14/09/2023	INCOMING EMAIL: Individual responded regarding request for meeting.
4648	Email	14/09/2023	OUTGOING EMAIL: To individual proposing times for meeting.
4651	Email	14/09/2023	INCOMING EMAIL: Individual confirmed meeting time.
4650	Email	14/09/2023	OUTGOING EMAIL: To individual confirming time of meeting
4649	Email	14/09/2023	INCOMING EMAIL: From individual preference for meeting day.
3384	Email	18/09/2023	INCOMING EMAIL: Received Research Report from individual
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3488	Email	21/09/2023	INCOMING EMAIL: Individual declined meeting confirming other stakeholder would attend.
4646	Meeting - Virtual	21/09/2023	Virtual meeting with individuals to receive feedback on draft EP chapters
3404	Email	24/09/2023	INCOMING EMAIL: Received out of office automated reply.
3827	Email	27/09/2023	OUTGOING EMAIL: To stakeholders containing meeting notes for review and contribution.

3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4831	Email	15/11/2023	INCOMING EMAIL: Stakeholder enquiring if webinar 4 took place (confusion over AEST time zone).
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4890	Email	11/12/2023	INCOMING EMAIL: sent from stakeholder notifying the team of approval to release various reports and datasets from the work to date in the Zeehan and Franklin marine parks in shelf waters.
4891	Email	12/12/2023	OUTGOING EMAIL: Sent to stakeholder replying to previously received email thanking stakeholder for the provision of information and datasets. Confirmed drilling locations have not been chosen as of yet.

Organisation Id	**10**
Name of Organisation	Marine and Safety Tasmania (MAST)
Identification Method	Desktop Research
Function, Interest, Activities	Statutory authority responsible for the safe operation of vessels, provide and manage marine facilities and manage environmnetal issues relating to vessels within state waters.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 10 - Consultation Summary

Id	Event Type	Start Date	Summary
4144	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of EP to undertake exploration drilling programme (incl attachments)
509	Email	15/02/2023	INCOMING EMAIL: Confirmation stakeholder has no direct involvement in area.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2724	Email	3/08/2023	OUTGOING EMAIL: to stakeholder with formal response attached
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**11**
Name of Organisation	South East Trawl Fishing Industry Association (SETFIA)
Identification Method	Desktop Research
Function, Interest, Activities	A not-for-profit industry association representing quota owners, fisherman and sellers in the south east trawl fishery
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 11 - Consultation Summary

Id	Event Type	Start Date	Summary
2576	Meeting - In-person	25/07/2022	Meeting with individual to discuss potential drilling campaign and ongoing consultation.
2919	Telephone call	14/11/2022	OUTGOING CALL: To organisation regarding consultation.
4253	Email	8/02/2023	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1719	Email	8/02/2023	INCOMING EMAIL: from stakeholder re reviewing EP submissions and providing up to date industry commentary
23	Telephone call	13/02/2023	INCOMING CALL from individual about recent correspondence. Provided brief project overview (1 new permit 1 historic, seabed surveys and drilling up to 6 exploration wells) and shared that it was an exploration drilling campaign. General discussion around existing offshore energy projects and consultation requests for organisation.
1732	Email	13/02/2023	INCOMING EMAIL: sent from stakeholder noting stakeholders core interests and who they represent. Stakeholder suggested the team work with them in order to minimise risk and impact for fishing and drilling industries. Stakeholder noted widespread industry closures and structural adjustment.
24	Email	14/02/2023	OUTGOING EMAIL: sent to stakeholder responding to previously received email and telephone conversation. Confirmed updated implementation plan thanks to stakeholders suggestions and asked for value in further strategic decisions in cooperation with stakeholder regarding EP process.
1735	Email	14/02/2023	INCOMING EMAIL: sent from stakeholder in reply to recent email correspondence, stakeholder recommends over-communicating what is happening and where so that fishers understand. Stakeholder commented that the fishers likely won't make comments on the EP.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3051	Email	24/08/2023	INCOMING EMAIL: stakeholder responded to project update and requested someone contact him regarding his representation of trawl and shark fishery.
3067	Telephone call	25/08/2023	OUTGOING CALL - No answer. Left message.
3348	Email	12/09/2023	OUTGOING EMAIL: sent to stakeholder providing response to objections and claims made throughout consultation.

Organisation Id	**13**
Name of Organisation	King Island Marine Research
Identification Method	Email to project email
Function, Interest, Activities	Aquaculture research facility located on King Island.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 13 - Consultation Summary

Id	Event Type	Start Date	Summary
1767	Email	7/03/2023	INCOMING EMAIL: from stakeholder with attached letter about Lobster farming
574	Email	8/03/2023	INCOMING EMAIL: with Letter from stakeholder
575	Email	8/03/2023	OUTGOING EMAIL: email confirming stakeholder and main contact information
4314	Email	8/03/2023	INCOMING EMAIL: from individual stating they represent stakeholder and will be happy to discuss process
581	Email	8/03/2023	OUTGOING EMAIL: to stakeholder to arrange consultation meeting
684	Email	23/03/2023	OUTGOING EMAIL: to stakeholder with follow up for meeting
875	Email	6/04/2023	OUTGOING EMAIL: to stakeholder with another follow up for meeting.
1039	Email	2/05/2023	INCOMING EMAIL: from stakeholder re taking over discussions and arranging consultation meeting
1083	Email	3/05/2023	OUTGOING EMAIL: to stakeholder re arranging consultation meeting
4315	Email	3/05/2023	INCOMING EMAIL: from stakeholder who notes preference to meet in Sydney
1086	Email	3/05/2023	OUTGOING EMAIL: to stakeholder re arranging consultation meeting and points of discussion
1088	Email	3/05/2023	OUTGOING EMAIL: to stakeholder to organise consultation meeting
4316	Email	3/05/2023	INCOMING EMAIL: from stakeholder re meeting dates
4317	Email	4/05/2023	OUTGOING EMAIL: to stakeholder re confirming meeting time
4318	Email	4/05/2023	OUTGOING EMAIL: to stakeholder correction to previous email re meeting time
4319	Email	4/05/2023	INCOMING EMAIL: from stakeholder stating meeting time doesn't suit and suggesting new date
1119	Email	4/05/2023	OUTGOING EMAIL: to stakeholder organising meeting date
4320	Email	4/05/2023	INCOMING EMAIL: from stakeholder confirming meeting date but changing time
4321	Email	4/05/2023	OUTGOING EMAIL: response to confirmed meeting time
1181	Email	15/05/2023	INCOMING EMAIL: from stakeholder regarding seawater intake pipe.
1182	Email	15/05/2023	OUTGOING EMAIL: to stakeholder confirming meeting notes being compiled and shared for contribution.
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3970	Email	21/05/2023	INCOMING EMAIL: Individual requesting to attend webinar
1266	Campaign Email	22/05/2023	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
4154	Email	22/05/2023	INCOMING EMAIL: re webinar
4155	Email	22/05/2023	OUTGOING EMAIL: to stakeholder re webinar and outstanding email address
1329	Webinar	23/05/2023	Webinar hosted by ConocoPhillips Australia. Provided Overview of proposed Otway Exploration Drilling Program, Regulatory Framework, the drilling process and the Preliminary Environmental Risk and Impact Assessment.
4156	Email	23/05/2023	INCOMING EMAIL: from stakeholder re webinar attendance
4157	Email	23/05/2023	OUTGOING EMAIL: to stakeholder re webinar
4158	Email	23/05/2023	INCOMING EMAIL: from stakeholder re webinar Q&A function
1322	Email	23/05/2023	OUTGOING EMAIL: to stakeholder re webinar attendance and invitation to engage in consultation meeting for clarification
4323	Email	23/05/2023	INCOMING EMAIL: to stakeholder re setting a meeting to clarify issues
4322	Email	23/05/2023	OUTGOING EMAIL: to stakeholder re confirming follow up meeting time
1326	Email	24/05/2023	OUTGOING EMAIL: to stakeholders with meeting link for proposed Activity Clarification
1342	Meeting - Virtual	24/05/2023	OUTGOING - Revised meeting invitation
1341	Email	24/05/2023	OUTGOING Email - Re change of date for meeting
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4325	Email	9/06/2023	INCOMING EMAIL: from stakeholder re rescheduling meeting
1645	Email	9/06/2023	OUTGOING EMAIL: to stakeholder with response to request to cancel meeting.

1647	Email	12/06/2023	OUTGOING EMAIL: to stakeholder with meeting link to discuss Proposed Activity Clarification
1815	Email	28/06/2023	OUTGOING EMAIL: to stakeholder consultation scheduling and request for data
1829	Campaign Email	30/06/2023	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2441	Email	17/07/2023	INCOMING EMAIL: from stakeholder with questions regarding Otway Exploration's effect on King Island Lobster Hatcheries
2534	Campaign Email	24/07/2023	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
4160	Email	25/07/2023	OUTGOING EMAIL: to stakeholder acknowledging receipt of email and request to host meeting/provide written response
2844	Webinar	26/07/2023	WEBINAR hosted by ConocoPhillips Australia. Provided overview of proposed Otway Exploration Drilling Program, Regulatory Framework, and overview of consultation feedback to-date, and answered questions.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2657	Email	31/07/2023	OUTGOING EMAIL: to stakeholder with response to queries (documents attached)
2716	Email	1/08/2023	INCOMING EMAIL: from stakeholder received correspondence, stakeholder requested meeting.
4161	Email	2/08/2023	OUTGOING EMAIL: to stakeholder confirming receipt of letter and requesting meeting times
2722	Email	2/08/2023	INCOMING EMAIL: from stakeholder confirming meeting time
2734	Email	3/08/2023	OUTGOING EMAIL: to stakeholder with team invitation set for 15 August.
2721	Email	3/08/2023	OUTGOING EMAIL: to stakeholder with Meeting Invitation
2733	Email	4/08/2023	INCOMING EMAIL: from stakeholder request to add other stakeholders in teams meeting.
4162	Email	4/08/2023	OUTGOING EMAIL: To stakeholder confirming meeting invitation extension
2750	Email	4/08/2023	INCOMING AND OUTGOING EMAIL: from stakeholder Acknowledging team invitation.
3074	Email	11/08/2023	INCOMING EMAIL: Meeting cancelled by stakeholder
2866	Email	14/08/2023	INCOMING EMAIL: from stakeholder Canceled: Meeting Invitation
4326	Email	17/08/2023	INCOMING EMAIL: from stakeholder with letter and research report detailing concerns and background brochure, and 3 letters addressed to UN, World Health Org and World Food Org
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3075	Email	25/08/2023	INCOMING EMAIL: from stakeholder regarding response to objections and claims
3077	Email	28/08/2023	OUTGOING EMAIL: to stakeholder with response regarding objections and claims
3129	Email	28/08/2023	INCOMING EMAIL: from stakeholder providing previous correspondence (incl attachments)
3130	Email	29/08/2023	OUTGOING EMAIL: to stakeholder and acknowledging receipt and advising that previous correspondence had not been received and requesting electronic copy of sent email.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3390	Email	16/09/2023	INCOMING EMAIL: stakeholder responded to Webinar invitation and will be attending
3381	Email	17/09/2023	INCOMING EMAIL: from stakeholder requesting update of response

3382	Email	18/09/2023	OUTGOING EMAIL: to stakeholder providing expected timeframes for response
3481	Webinar	20/09/2023	WEBINAR to cover assessments covered in the EP.
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
4163	Email	29/09/2023	INCOMING EMAIL: from stakeholder with follow up re response to concerns about the Otway Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3863	Email	3/10/2023	OUTGOING EMAIL: to stakeholder with response to feedback (including attachments)
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4833	Email	15/11/2023	INCOMING EMAIL: sent from stakeholder replying to webinar invitation confused regarding webinar meeting time.
4836	Email	15/11/2023	OUTGOING EMAIL: sent to stakeholder clarifying webinar meeting time.
4835	Email	15/11/2023	INCOMING EMAIL: sent from stakeholder acknowledging teams previous response that clarified webinar meeting time confusion.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**14**
Name of Organisation	Department of Natural Resources and Environment Tasmania (NRE TAS)
Function, Interest, Activities	NRE Tas is responsible for supporting primary industry development, the protection of Tasmania's natural envrionment, effective land and water management and the protection against pests.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 14 - 2.Summary

Id	Event Type	Start Date	Summary
4532	Email	9/11/2022	OUTGOING EMAIL: to stakeholder with follow up from call and snip of original request
2928	Email	14/11/2022	INCOMING EMAIL: from stakeholder noting they are available for meeting and would like another stakeholder to join. Plus attached email trail.
4557	Email	21/11/2022	INCOMING EMAIL: from stakeholder who is unable to attend meeting due to a research trip
4534	Email	22/11/2022	INCOMING EMAIL: from stakeholder stating there is no one who will understand the request
4533	Email	22/11/2022	OUTGOING EMAIL: to stakeholder with request for availability for a call
4537	Email	22/11/2022	INCOMING EMAIL: from stakeholder re reporting and block info
4536	Email	22/11/2022	EMAIL EXCHANGE INGOING AND OUTGOING: to stakeholder with apology for missing call and info re data request
4539	Email	24/11/2022	INCOMING EMAIL: from stakeholder re rescheduling meeting
4538	Email	24/11/2022	OUTGOING EMAIL: to stakeholder re rescheduling meeting
4540	Email	24/11/2022	EMAIL EXCHANGE INGOING AND OUTGOING: with stakeholder re rescheduling teams meeting
4541	Email	24/11/2022	INCOMING EMAIL: from stakeholder re rescheduling teams meeting
95	Email	25/11/2022	INCOMING EMAIL from stakeholder advising of period of leave
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
80	Email	25/11/2022	INCOMING EMAIL (auto mail) from Relevant Organisation confirming change of main contact
4543	Email	28/11/2022	INCOMING EMAIL: from stakeholder containing maps
4544	Email	28/11/2022	INCOMING EMAIL: from stakeholder with Marine Plant map
4542	Email	28/11/2022	INCOMING EMAIL: from stakeholder with scallop area map
4607	Meeting - In-person	30/11/2022	MEETING IN-PERSON: Meeting with government departments to provide high level overview on upcoming Otway Exploration Drilling Program EP development.
1602	Email	2/12/2022	OUTGOING EMAIL: to stakeholder with attached meeting notes for review.
1612	Email	5/12/2022	OUTGOING EMAIL drawing attention to sperm whale sighting as a location anomaly.
1613	Email	7/12/2022	OUTGOING EMAIL to stakeholder requesting specific data on a range of issues to do with fisheries- ConocoPhillips Australia.
4545	Email	7/12/2022	OUTGOING EMAIL: to stakeholder re maps and data request
4546	Email	7/12/2022	INCOMING EMAIL: from stakeholder re data request
4550	Email	7/12/2022	INCOMING EMAIL: from stakeholder with maps
4548	Email	7/12/2022	INCOMING EMAIL: from stakeholder stating they forwarded maps
4549	Email	7/12/2022	INCOMING EMAIL: from stakeholder with Com Dive Map
4552	Email	7/12/2022	INCOMING EMAIL: from stakeholder wishing a good weekend
4547	Email	7/12/2022	EMAIL EXCHANGE INCOMING AND OUTGOING with stakeholder re sending maps not received.
4551	Email	7/12/2022	OUTGOING EMAIL: to stakeholder with thanks for maps
1624	Email	8/12/2022	OUTGOING EMAIL with Preliminary Report for Cetacean Surveys attached and a request for data.
1626	Email	9/12/2022	OUTGOING EMAIL to stakeholder regarding the Com Dive Map with attached spreadsheet.
4095	Email	12/12/2022	OUTGOING EMAIL: sent to stakeholder to confirm draft meeting notes and any required changes (incl attached meeting notes)
1631	Email	14/12/2022	INCOMING EMAIL: from Stakeholder to ConocoPhillips Agreeing Meeting Notes with query about OSRA notes.
4096	Email	15/12/2022	OUTGOING EMAIL: sent to stakeholder to confirm draft meeting notes and note that meeting was not recorded
1678	Email	15/12/2022	INCOMING EMAIL from stakeholder - Review of meeting notes ConocoPhillips Meeting Notes
4553	Email	15/12/2022	INCOMING EMAIL: from stakeholder re forwarding email and data request
1679	Email	15/12/2022	OUTGOING AND INCOMING EMAIL to relevant stakeholder thanking them and wishing them well.
1680	Email	5/01/2023	OUTGOING EMAILS confirming survey flight details and information about a marine survey.
4395	Email	25/01/2023	OUTGOING EMAIL to stakeholder re January survey.
4449	Email	25/01/2023	INCOMING EMAIL: from individual acknowledging update.
729	Email	3/02/2023	OUTGOING EMAIL with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
727	Email	3/02/2023	OUTGOING EMAIL with notice and attachments to stakeholder re ConocoPhillips Australia Otway Exploration Drilling Program

726	Email	3/02/2023	OUTGOING EMAIL with Notice and attached letter and information sheets re ConocoPhillips Australia Otway Exploration Drilling Program
1691	Email	3/02/2023	INCOMING EMAIL - Out of Office response to Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
728	Email	3/02/2023	OUTGOING EMAIL with notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1295	Email	3/02/2023	INCOMING EMAIL: email from relevant from stakeholder containing an automatic response
1693	Email	3/02/2023	INCOMING EMAIL from Relevant Stakeholder with Auto Response
730	Email	3/02/2023	OUTGOING EMAIL with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
731	Email	3/02/2023	OUTGOING EMAIL with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
4	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1718	Email	8/02/2023	OUTGOING EMAIL with flight details and short information on completed marine survey.
4584	Email	14/02/2023	EMAIL CHAIN INCOMING AND OUTGOING February 14-17 -Sensitive: 2021 Citizen Science images
1462	Telephone call	14/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
1463	Telephone call	14/02/2023	OUTGOING CALL: No answer. Left message.
1464	Telephone call	14/02/2023	OUTGOING CALL: No answer. Left Message.
1465	Telephone call	14/02/2023	OUTGOING CALL: To organisation to confirm contact details.
1467	Telephone call	14/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1468	Telephone call	14/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1469	Telephone call	14/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1470	Telephone call	15/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
1471	Telephone call	15/02/2023	OUTGOING CALL: To organisation to confirm correct contact details.
1472	Telephone call	15/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1475	Email	15/02/2023	INCOMING EMAIL from stakeholder confirming receipt of notice re the proposed Otway Exploration Drilling Program email.
1480	Telephone call	15/02/2023	INCOMING CALL: From individual confirming receipt of initial corresoondence.
1737	Email	15/02/2023	INCOMING EMAIL responding to Notice and stating it had been referred to another agency.
69	Email	15/02/2023	INCOMING EMAIL: from Stakeholder confirming receipt of email about 'Proposed Otway Exploration Drilling Program'.
1518	Telephone call	16/02/2023	INCOMING CALL: From individual confirming receipt of initial correspondence sent.
4610	Email	17/02/2023	OUTGOING EMAIL: Email sent to stakeholders with findings overview for second survey for February.
4232	Email	17/02/2023	INCOMING EMAIL: Email from stakeholder with summary of nearby seismic surveys in the surveillance area and asked for clarification on what it will be used for.
4231	Email	20/02/2023	OUTGOING EMAIL with stakeholder re involvement in other marine surveys.
4233	Email	21/02/2023	INCOMING EMAIL re sharing marine survey data from February.
72	Email	22/02/2023	OUTGOING EMAIL to stakeholder re enquiry about sharing data with other titleholders.
79	Email	22/02/2023	OUTGOING EMAIL to stakeholder with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program.
110	Email	23/02/2023	OUTGOING EMAIL - with stakeholder re approval to share provided fisheries data.
527	Email	2/03/2023	OUTGOING EMAIL - Request for meeting.
529	Email	2/03/2023	OUTGOING EMAIL: Exchange with stakeholder re Follow-up on fishing data request and Christmas wishes.
530	Email	2/03/2023	OUTGOING EMAIL to stakeholder requesting opportunity to begin consultation through meetings.
4554	Email	3/03/2023	INCOMING EMAIL: from stakeholder requesting years data is wanted for
548	Email	3/03/2023	EMAIL EXCHANGE INCOMING AND OUTGOING: to stakeholder with follow up requests for fishing data.
4555	Email	3/03/2023	INCOMING EMAIL: from stakeholder stating they will revert back re data request
563	Telephone call	6/03/2023	OUTGOING CALL: No answer. Left Message.
565	Telephone call	6/03/2023	INCOMING CALL from stakeholder regarding request for meeting - advised that he should have a response from tomorrow.
568	Email	6/03/2023	OUTGOING EMAIL to stakeholder providing examples of consultation guidelines.
4623	Email	8/03/2023	INCOMING EMAIL: from stakeholder with response to notice of preparation of EP noting they are reviewing two information sheets but require extension to provide feedback
577	Email	8/03/2023	EMAIL EXCHANGE INCOMING AND OUTGOING: to stakeholder nothing that consultation is in initial stages only but welcome initial feedback and offering meeting re consultation approach

580	Email	8/03/2023	OUTGOING EMAIL to stakeholder to confirm consultation details.
588	Email	9/03/2023	OUTGOING EMAIL to stakeholder with request for meeting time change.
1768	Email	10/03/2023	INCOMING EMAIL to stakeholder to move consultation time
1769	Email	10/03/2023	INCOMING EMAIL from stakeholder agreeing changed meeting arrangements.
1776	Email	16/03/2023	INCOMING EMAIL from stakeholder arranging ZOOM meeting
647	Email	16/03/2023	OUTGOING EMAIL: to stakeholder regarding ConocoPhillips: Aerial Survey summary 14 March 2023
683	Email	23/03/2023	OUTGOING EMAIL to stakeholder with attached meeting notes for review and contribution.
700	Email	27/03/2023	OUTGOING EMAIL to stakeholder sharing information on marine mammal sightings
4624	Email	30/03/2023	INCOMING EMAIL: from stakeholder with thanks for meeting notes and confirm there are no edits.
712	Email	31/03/2023	EMAIL EXCHANGE: with stakeholder, providing agreed meeting notes and acknowledging consultation approach with attached letter requesting authorization for IMAS to provide COP with outstanding fishing data.
713	Email	31/03/2023	INCOMING EMAIL: from stakeholder confirming receipt of agreed meeting notes
771	Email	4/04/2023	OUTGOING EMAIL to stakeholder re marine survey flights April with attached photos.
4145	Email	10/04/2023	INCOMING EMAIL providing feedback re the Otway Exploration Drilling Program
4625	Email	17/04/2023	INCOMING EMAIL: from stakeholder with comments for consideration to the EP
4626	Email	17/04/2023	OUTGOING EMAIL: requesting any further advice on the remaining data request
4627	Email	17/04/2023	INCOMING EMAIL: from stakeholder asking if a letter had been sent for data request
995	Email	17/04/2023	EMAIL EXCHANGE, INCOMING AND OUTGOING: to stakeholder with response to question re sending letter requesting data.
4628	Email	18/04/2023	INCOMING EMAIL: from stakeholder noting letter has been forwarded to relevant section for review
4562	Email	20/04/2023	CORRESPONDENCE INCOMING AND OUTGOING: Email discussion to organise meeting availability.
1019	Email	25/04/2023	OUTGOING EMAIL to stakeholder with details of marine survey for April
1036	Email	2/05/2023	EMAIL EXCHANGE: INCOMING AND OUTGOING: to stakeholder with apology for delayed response and further details re the data request
4566	Email	4/05/2023	OUTGOING EMAIL: requesting meeting regarding Otway Exploration Drilling Program.
4558	Email	4/05/2023	OUTGOING EMAIL: to stakeholder with information link re proposed activities and relevant person criteria
4556	Email	5/05/2023	INCOMING EMAIL: from stakeholder apologising for late reply and discussion about reporting and data request
1139	Email	8/05/2023	OUTGOING EMAIL: to stakeholder confirming the re-request for fishing data
1140	Email	8/05/2023	EMAIL EXCHANGE INCOMING AND OUTGOING with stakeholder - Fishing Data request correspondence.
1154	Email	11/05/2023	OUTGOING EMAIL to stakeholders re marine mammal survey in May
1155	Email	11/05/2023	INCOMING EMAIL in response to request for fishing data
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4235	Email	11/05/2023	INCOMING EMAIL - auto reply re leave and alternative contacts.
2591	Email	11/05/2023	INCOMING EMAIL: Automated reply notified of stakeholders travel.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1170	Telephone call	12/05/2023	OUTGOING CALL: To individual to follow up on offer of face-to-face meeting.
4098	Email	15/05/2023	INCOMING EMAIL: stakeholder to ConocoPhillips requesting removal from mailing list
1189	Email	15/05/2023	INCOMING EMAIL: sent from stakeholder automated reply confirming receival of previously sent email by team.
1183	Email	15/05/2023	OUTGOING EMAIL: Stakeholder emailed requesting to be removed from the list and COP advised she has been removed.
3990	Email	15/05/2023	INCOMING EMAIL - Individual asked for attachment for project update as it was forwarded to them without the attachment.
1197	Campaign Email	15/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1330	Email	24/05/2023	OUTGOING EMAIL: to stakeholder requesting meeting
4578	Email	24/05/2023	OUTGOING EMAIL to Relevant Stakeholder requesting review of Tactical Response Plans for King Island
4559	Email	24/05/2023	INCOMING EMAIL: from stakeholder with auto reply

1368	Email	30/05/2023	OUTGOING EMAIL: EXCHANGE with stakeholder with follow up re phone call with link to more information re Otway drilling program.
1372	Email	30/05/2023	INCOMING EMAIL - Stakeholder downloaded a file from the folder 'File Box'.
1571	Email	5/06/2023	OUTGOING EMAIL to stakeholder re marine surveys June 2023
1610	Email	7/06/2023	INCOMING AND OUTGOING EMAIL EXCHANGE with stakeholder asking if they have any questions regarding tactical response plans and offer of teams meeting chat.
4631	Email	7/06/2023	OUTGOING EMAIL: to stakeholder with response to initial feedback on drilling program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4567	Email	8/06/2023	INCOMING EMAIL: received advising of ability to undertake a desktop review or TRP's and that they were unable to support any in-field verification work.
4632	Email	9/06/2023	INCOMING EMAIL: from stakeholder in response to initial feedback provided re drilling program
4633	Email	12/06/2023	OUTGOING EMAIL: to stakeholder thanking them for clarification
1653	Email	12/06/2023	OUTGOING EMAIL: to stakeholder thanking them for update
4634	Email	13/06/2023	INCOMING EMAIL: from stakeholder suggesting another relevant org who may wish to be contacted
1654	Email	13/06/2023	CHAIN: INCOMING AND OUTGOING EMAIL with response: to stakeholder confirming another suggested organisation will be contacted.
1829	Campaign Email	30/06/2023	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3283	Email	8/08/2023	OUTGOING EMAIL to stakeholder with attached surveillance report.
2823	Telephone call	10/08/2023	OUTGOING CALL: No answer. Left message
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3064	Email	25/08/2023	INCOMING - Unsubscribe from updates.
3136	Email	29/08/2023	OUTGOING EMAIL: to stakeholder with project update attached for consideration
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3326	Email	31/08/2023	INCOMING EMAIL from Relevant Stakeholder re leave.
3334	Email	31/08/2023	INCOMING EMAIL: Auto reply
3328	Email	31/08/2023	INCOMING EMAIL - Auto reply.
3241	Email	5/09/2023	OUTGOING EMAIL: regarding briefing and to provide response to Objections and Claims raised.
3425	Email	6/09/2023	INCOMING EMAIL: with request to arrange a meeting.
3426	Email	8/09/2023	INCOMING EMAIL - Individual provided additional information around dive industry in Tasmania.
4530	Email	8/09/2023	INCOMING EMAIL re response to objections and claims.
3427	Email	8/09/2023	OUTGOING EMAIL Requesting clarification around Tas dive industry response,
3428	Email	8/09/2023	INCOMING EMAIL: Individual responded to clarify intent.
3429	Email	8/09/2023	OUTGOING EMAIL: responding to individual regarding noise profile of activity.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4612	Email	7/11/2023	INCOMING EMAIL: Email from stakeholder with data for preliminary report.
4614	Email	7/11/2023	OUTGOING EMAIL: Email sent to stakeholder with details of survey.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4993	Public Comment	18/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
5107	Email	21/02/2024	OUTGOING EMAIL: Provided response to public comment submission.
5114	Email	21/02/2024	OUTGOING EMAIL: Advised of administrative error in letter sent.

Organisation Id	**15**
Name of Organisation	Apollo Bay Sailing Club
Function, Interest, Activities	Sailing club operating within the Environmental Planning Area. The club holds weekly sailing races from October to May.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 15 - Consultation Summary

Id	Event Type	Start Date	Summary
603	Email	13/03/2023	OUTGOING EMAIL: to stakeholder with notification of preparation of EP about Otway Offshore Exploration Drilling Program (incl attachments)
916	Email	13/04/2023	OUTGOING EMAIL: to stakeholder with information about Community Information Sessions - Otway Exploration Program.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**20**
Name of Organisation	Department of Climate Change Energy the Environment and Water (DCCEEW)
Function, Interest, Activities	DCCEEW administers the Underwater Cultural Heritage Act 2018 (UCH Act). DCCEEW regulates activities in relation to protected underwater cultural heritage (UCH) within Australian waters including the Commonwealth marine area. DCCEEW has responsibility for regulating the loading and dumping of waste at sea in Australian waters (this includes Commonwealth waters). DCCEEW has responsibility for the Environment Protection (Sea Dumping) Act 1981 (Sea Dumping Act), which implements Australia's commitments as a contracting party to the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 20 - Consultation Summary

Id	Event Type	Start Date	Summary
757	Email	3/02/2023	OUTGOING EMAIL to stakeholder with attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1456	Telephone call	14/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
641	Email	13/03/2023	INCOMING EMAIL: from stakeholder following information about project and outlining issues to do with underwater cultural heritage. Documents attached.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3410	Email	24/08/2023	INCOMING EMAIL: Automatic reply received
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3313	Email	31/08/2023	INCOMING EMAIL - Automatic reply re receipt of information
4182	Email	25/09/2023	INCOMING EMAIL: from stakeholder re update on the review of the Biologically Important Areas for protected marine species - southern right whale focus.
4571	Email	25/09/2023	OUTGOING EMAIL: to stakeholder congratulating them for completing work
4183	Email	27/09/2023	OUTGOING EMAIL: to stakeholder with queries regarding the review of the Biologically Important Areas for protected marine species - with southern right whale focus.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4528	Email	3/10/2023	INCOMING EMAIL: from stakeholder stating they have received enquiry and will respond soon
4529	Email	12/10/2023	EMAIL EXCHANGE: re biologically important areas.
4184	Email	16/10/2023	INCOMING EMAIL: from stakeholder with clarification regarding the update on the review of the Biologically Important Areas for protected marine species, southern right whale focus.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4876	Email	28/11/2023	OUTGOING EMAIL: sent to stakeholder recognising an administrative error and resending correspondence regarding the environmental plan. Attached a letter responding to objections and claims regarding the otway drilling program and apologised for the administration mistake.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**22**
Name of Organisation	TGS
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Proposing 3D MSS adjacent to permit areas
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 22 - 2.Summary

Id	Event Type	Start Date	Summary
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
4622	Email	2/10/2023	OUTGOING EMAIL: sent to stakeholders regarding proposed meeting, offered a meeting time and an agenda for discussion regarding upcoming otway activities.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4363	Meeting - Virtual	20/10/2023	VIRTUAL MEETING with stakeholders s to discuss development of Regional Adjustment Protocol.
4360	Email	24/10/2023	OUTGOING EMAIL: sent to stakeholder including minutes from Regional Adjustment Protocol development meeting previously held.
4247	Email	24/10/2023	INCOMING: Acceptance of minutes from discussion on Regional Adjustment Protocol Compensation between SIV and TGS/CGG/ConocoPhillips
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**23**
Name of Organisation	Regia MSS
Function, Interest, Activities	Proponent proposing 3D MSS in Environmental Planning Area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 23 - Consultation Summary

Id	Event Type	Start Date	Summary
4479	Email	18/04/2023	OUTGOING EMAIL: FW: [EXTERNAL]Consultation in Warrnambool, April 17th.
2434	Email	18/04/2023	OUTGOING EMAIL Response to stakeholder's positive comment on presentation.
3959	Email	26/05/2023	INCOMING EMAIL: Newsletter
2527	Community Session	29/05/2023	COMMUNITY SESSION focused on commercial fishing.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
3910	Email	3/07/2023	INCOMING EMAIL: Regia July - Newsletter
1927	Campaign Email	4/07/2023	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3817	Email	8/09/2023	OUTGOING EMAIL: CORRESPONDENCE of Regia Fisheries report
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4363	Meeting - Virtual	20/10/2023	VIRTUAL MEETING with stakeholders s to discuss development of Regional Adjustment Protocol.
4360	Email	24/10/2023	OUTGOING EMAIL: sent to stakeholder including minutes from Regional Adjustment Protocol development meeting previously held.
4247	Email	24/10/2023	INCOMING: Acceptance of minutes from discussion on Regional Adjustment Protocol Compensation between SIV and TGS/CGG/ConocoPhillips
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**24**
Name of Organisation	Peterborough Residents Group Inc
Function, Interest, Activities	Community group in Environmental Planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 24 - Consultation Summary

Id	Event Type	Start Date	Summary
1634	Email	7/06/2023	OUTGOING EMAIL to stakeholder with attached flyer for the upcoming community information session
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1792	Community Session	19/06/2023	Collaborative Community Information Session held Monday 19 June 12-2pm

Organisation Id	**25**
Name of Organisation	Apollo Bay Fishermen's Co-Op
Function, Interest, Activities	Major fishing port and cooperative for fishers utilizing the Environmental Planning Area
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 25 - Consultation Summary

Id	Event Type	Start Date	Summary
619	Email	13/03/2023	OUTGOING EMAIL: Sent initial correspondence to relevant stakeholder about the proposed Otway Offshore Exploration Drilling Program
908	Email	13/04/2023	OUTGOING EMAIL: Sent information to relevant stakeholder regarding Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1028	Email	26/04/2023	OUTGOING EMAIL to relevant stakeholder regarding a meeting follow up details and link to further information about the Otway Exploration Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1671	Email	14/06/2023	OUTGOING EMAIL: email sent to relevant stakeholder regarding an invitation to Fishers to meet with ConocoPhillips
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**26**
Name of Organisation	Australian Fisheries Management Authority (AFMA)
Function, Interest, Activities	The Australian Fisheries Management Authority (AFMA) is responsible for the implementation of Commonwealth fisheries policy.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 26 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
744	Email	3/02/2023	Outgoing Email: sent to stakeholder regarding notification of otway exploration drilling program. Included personalised letter and attachments with further relevant information.
4258	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of EP to undertake exploration drilling program. Letter and information sheets attached
12	Email	7/02/2023	OUTGOING EMAIL: to stakeholder with request for Individual Commonwealth rights/ permit holders
1445	Telephone call	13/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
26	Telephone call	15/02/2023	OUTGOING CALL: To organisation to request details for commonwealth fishers.
27	Telephone call	15/02/2023	OUTGOING CALL: To organisation to follow up on request for information/ details.
4311	Email	16/02/2023	INCOMING EMAIL: from stakeholder with apology for the delay and that they will revert back soon
4312	Email	17/02/2023	INCOMING EMAIL: from stakeholder stating they can provide information if a deed of confidentiality is signed
4313	Email	20/02/2023	OUTGOING EMAIL: to stakeholder stating happy with proposed terms
4343	Email	20/02/2023	INCOMING EMAIL: from stakeholder with signed deed of confidentiality and invoice
4342	Email	22/02/2023	OUTGOING EMAIL: to stakeholder with signed deed of confidentiality
88	Email	23/02/2023	INCOMING EMAIL: from stakeholder with requested names and addresses
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
3937	Email	20/06/2023	INCOMING EMAIL: Individual suggest engaging directly with the list of relevant fisheries.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**27**
Name of Organisation	Department of Agriculture Fisheries and Forestry
Function, Interest, Activities	The Department of Agriculture, Fisheries and Forestry (DAFF) has primary policy responsibility for promoting the biological, economic and social sustainability of Australian fisheries. DAFF provides policy advice to the Australian Government on a range of economic and environmental fisheries issues, including the conservation of marine ecosystems and biodiversity that support commercially valuable fisheries resource. DAFF administers the Biosecurity Act 2015 (Biosecurity Act). The Biosecurity Act has jurisdiction within Australian territory and does not encompass the full extent of the Commonwealth marine area. DAFF has primary policy and regulatory responsibility for managing marine pest biosecurity through administering the Biosecurity Act.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 27 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1269	Email	3/02/2023	OUTGOING EMAIL sent to stakeholder with attachments re upcoming Otway drilling program
756	Email	3/02/2023	OUTGOING EMAIL to stakeholder with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
755	Email	3/02/2023	OUTGOING EMAIL to stakeholder with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
753	Email	3/02/2023	OUTGOING EMAIL to stakeholder with notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1268	Email	3/02/2023	INCOMING EMAIL to stakeholder with Notice and attachments re upcoming Otway Drilling Program with auto reply.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2592	Email	11/05/2023	INCOMING EMAIL: Automated response acknowledging email has been received from us.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3298	Email	31/08/2023	INCOMING EMAIL with Auto reply and notice of changed email contact.
3406	Email	24/09/2023	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**28**
Name of Organisation	Department of Defence
Function, Interest, Activities	The Australian Defence Force utilises several maritime exercise areas in Australian waters to perform a unique role in support of Australia's strategic and national security interests. The Australian Defence Force role requires not only naval warfare capabilities but also disaster relief, search and rescue, fisheries protection and border patrol training capabilities. It is important for the Australian Defence Force to continue to utilise its offshore training areas, manage potential conflict between the presence of the resources sector with Australian Defence Force and other defence training and operational requirements and manage the risk of unexploded ordnance in areas where offshore petroleum activities may take place. The Australian Hydrographic Service (AHS) is responsible for the publication and distribution of nautical products and other information required for the safety of ships navigating in Australian waters.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 28 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
2596	Email	25/11/2022	OUTGOING EMAIL: Contacted stakeholder regarding exploration plans in the offshore Otway Basin.
1594	Email	28/11/2022	INCOMING EMAIL: Stakeholder responded acknowledging receival of email regarding Otway exploration.
4168	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of EP to undertake exploration drilling with letter and info sheets
4167	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets
754	Email	3/02/2023	Outgoing Email: sent to stakeholder regarding commencement of otway exploration drilling program environmental planning. Included personalised letter and attached relevant information documents.
1699	Email	6/02/2023	INCOMING EMAIL: from stakeholder with acknowledgement of receipt of email
1450	Telephone call	14/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
1451	Telephone call	14/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
1454	Telephone call	14/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1455	Telephone call	14/02/2023	OUTGOING CALL: No Answer. Unable to leave message.
4169	Email	20/02/2023	INCOMING EMAIL: from stakeholder acknowledging email and requesting to be informed of risks associated with activities
538	Email	2/03/2023	INCOMING EMAIL: from organisation with cc to stakeholder
540	Email	2/03/2023	INCOMING EMAIL: from stakeholder stating Unexploded Ordnance may be present
2597	Email	11/05/2023	OUTGOING EMAIL: to stakeholder with project update regarding Otway exploration drilling.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4170	Email	11/05/2023	INCOMING EMAIL: to stakeholder with acknowledgment of email receipt
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
3956	Email	8/06/2023	INCOMING EMAIL: Acknowledged project update
4171	Email	8/06/2023	INCOMING EMAIL: acknowledging receipt of email
2602	Email	26/07/2023	OUTGOING EMAIL: Responding to stakeholder re initial objections, claims and requests.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3350	Email	24/08/2023	INCOMING EMAIL: Auto reply
3122	Email	29/08/2023	OUTGOING EMAIL: With project update ConocoPhillips Australia Otway Exploration Drilling Program
3343	Email	30/08/2023	INCOMING EMAIL: from stakeholder with Auto reply
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3292	Email	1/09/2023	INCOMING EMAIL: Individual has no concerns with Draft EP Chapters

3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4653	Email	8/11/2023	OUTGOING EMAIL: Email sent to stakeholder with a formal letter in response to objections and claims raised.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**29**
Name of Organisation	Department of Industry Science and Resources
Function, Interest, Activities	Responsibilities include offshore oil and gas development and safety, and greenhouse gas storage.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 29 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4147	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling (letter and fact sheets attached)
4148	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notification of preparation of an EP for drilling project (letter and information sheets attached)
29	Social Pinpoint Complete Consultation Survey	11/02/2023	SOCIAL PINPOINT Individual completed Stakeholder Survey
2589	Email	11/05/2023	INCOMING EMAIL: Stakeholder responded advising of current leave.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**32**
Name of Organisation	Department of State Growth Tasmania
Function, Interest, Activities	Mineral Resources Tasmania (MRT) is a Division of the Department of State Growth. The purpose of MRT is to give effect to government policy in relation to minerals and petroleum resources, and the Division provides essential information for land management in Tasmania.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 32 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
2	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling (including attachments)
1474	Telephone call	15/02/2023	Outgoing call to receptionist. Receptionist advised no access to specific email address account and advised they would request relevant person to contact ConocoPhillips Australia.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**33**
Name of Organisation	Environment Protection Authority (EPA) Tasmania
Function, Interest, Activities	EPA Tasmania is the regulatory body for oil and gas in Tasmania. It is also the lead response agency for marine pollution events.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 33 - Consultation Summary

Id	Event Type	Start Date	Summary
4364	Email	9/11/2022	OUTGOING EMAIL: to stakeholder re arranging time for an in person meeting
2928	Email	14/11/2022	INCOMING EMAIL: from stakeholder noting they are available for meeting and would like another stakeholder to join. Plus attached email trail.
4094	Email	15/11/2022	OUTGOING EMAIL: sent stakeholder meeting confirmation and proposed agenda
4373	Email	16/11/2022	INCOMING EMAIL: from stakeholder with details of people who may be interested to attend meeting
4374	Email	17/11/2022	OUTGOING EMAIL: to stakeholder confirming meeting time and requesting invitation be forwarded to colleagues
4607	Meeting - In-person	30/11/2022	MEETING IN-PERSON: Meeting with government departments to provide high level overview on upcoming Otway Exploration Drilling Program EP development.
1602	Email	2/12/2022	OUTGOING EMAIL: to stakeholder with attached meeting notes for review.
4095	Email	12/12/2022	OUTGOING EMAIL: sent to stakeholder to confirm draft meeting notes and any required changes (incl attached meeting notes)
1631	Email	14/12/2022	INCOMING EMAIL: from Stakeholder to ConocoPhillips Agreeing Meeting Notes with query about OSRA notes.
4096	Email	15/12/2022	OUTGOING EMAIL: sent to stakeholder to confirm draft meeting notes and note that meeting was not recorded
1678	Email	15/12/2022	INCOMING EMAIL from stakeholder - Review of meeting notes ConocoPhillips Meeting Notes
3	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
69	Email	15/02/2023	INCOMING EMAIL: from Stakeholder confirming receipt of email about 'Proposed Otway Exploration Drilling Program'.
516	Email	28/02/2023	OUTGOING EMAIL: to stakeholder to arrange an initial consultation meeting to discuss the format of consultation with stakeholder's organisation
4375	Email	1/03/2023	INCOMING EMAIL: from stakeholder re arranging meeting time
4376	Email	1/03/2023	OUTGOING EMAIL: to stakeholder confirming meeting time and querying location
518	Email	1/03/2023	INCOMING EMAIL: Response from stakeholder setting up a meeting time and place.
2513	Email	1/03/2023	INCOMING EMAIL: Stakeholder accepted meeting time that was sent previously.
2514	Email	14/03/2023	INCOMING EMAIL: Stakeholder has another meeting booked, may need leave earlier.
2921	Email	14/03/2023	OUTGOING EMAIL: to stakeholder - team may be late for meeting
2521	Meeting - In-person	14/03/2023	Met with stakeholder to discuss EP development and advised activity parameters. Listened to stakeholders concerns and confirmed actions in response.
695	Email	27/03/2023	OUTGOING EMAIL: Meeting notes sent to stakeholder for review.
2516	Email	27/03/2023	INCOMING EMAIL: Stakeholder checking time for online meeting.
2517	Email	6/04/2023	OUTGOING EMAIL: to stakeholder invitation not sent, finding new time with stakeholder.
2518	Email	17/04/2023	INCOMING EMAIL: Stakeholder unable to arrange meeting during week.
2925	Email	17/04/2023	OUTGOING EMAIL: to stakeholder with suggested time for meeting
2926	Email	17/04/2023	INCOMING EMAIL: Stakeholder accepted suggested time for meeting
2927	Email	17/04/2023	OUTGOING EMAIL: to stakeholder acknowledging meeting time and informed who will be attending meeting.
2519	Email	17/04/2023	OUTGOING EMAIL: Sent stakeholder meeting invitation for the 26th of April.
2574	Meeting - Virtual	26/04/2023	OPEP Briefing with stakeholder.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1258	Email	22/05/2023	OUTGOING EMAIL: To stakeholder with draft meeting notes for review and consultation
4378	Email	22/05/2023	INCOMING EMAIL: from stakeholder re meeting minutes and arranging date for meeting

1279	Email	22/05/2023	OUTGOING EMAIL: to stakeholder discussing meeting date and time with agreed meeting notes (incl attachments)
4379	Email	23/05/2023	INCOMING EMAIL: from stakeholder with time for meeting and comments on draft meeting notes
1305	Email	23/05/2023	OUTGOING EMAIL: to stakeholder confirming meeting date and further discussion of review of meeting notes
2520	Email	23/05/2023	OUTGOING EMAIL: to stakeholder with meeting request to discuss ConocoPhillips Australia Otway Exploration Drilling Program OPEP initial discussion for the 13th of June.
1369	Email	30/05/2023	OUTGOING EMAIL: to stakeholder further to draft OPEP a link to FTP site will be sent through
1370	Email	30/05/2023	INCOMING EMAIL: from stakeholder re link to secure FTP site
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4105	Email	13/06/2023	OUTGOING EMAIL: to stakeholder re not seeing docs in inbox - ConocoPhillips: OPEP, Shoreline Plan and TRPs for King Island
1657	Meeting - Virtual	13/06/2023	OPEP briefing with organisation.
1663	Email	13/06/2023	INCOMING EMAIL: NOTIFICATION - Stakeholder has downloaded files from the folder 'File Box'
1665	Email	13/06/2023	INCOMING EMAIL: from Stakeholder with apology for not seeing attachments earlier.
1711	Email	16/06/2023	OUTGOING EMAIL: meeting notes to stakeholder for review (incl attachments)
4107	Email	27/06/2023	INCOMING EMAIL: from stakeholder with questions re ConocoPhillips: OPEP, Shoreline Plan and TRPs for King Island
1813	Email	28/06/2023	OUTGOING EMAIL: to stakeholder re OPEP, Shoreline Plan and TRPs for King Island
2494	Email	18/07/2023	OUTGOING EMAIL: contacted stakeholder following up regarding feedback on the draft OPEP (incl attachments)
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2820	Email	10/08/2023	OUTGOING EMAIL: to stakeholder with ConocoPhillips Australia Otway Exploration Drilling Program OPEP (incl attachments)
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3412	Email	24/08/2023	INCOMING EMAIL: Auto reply from stakeholder
3311	Email	31/08/2023	INCOMING EMAIL: stakeholder Auto reply
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3828	Email	27/09/2023	OUTGOING EMAIL: to stakeholder with response to feedback COP Otway Exploration Drilling Program (incl attachments)
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**34**
Name of Organisation	Department of Premier and Cabinet Office (TAS)
Function, Interest, Activities	The Office provides an Aboriginal voice to guide and advise the Tasmanian Government on policy issues affecting Tasmanian Aboriginal people.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 34 - Consultation Summary

Id	Event Type	Start Date	Summary
4141	Email	3/02/2023	OUTGOING EMAIL: to stakeholder with notification of preparation for EP for drilling programme - letter attached
1476	Telephone call	15/02/2023	OUTGOING CALL: No answer. Left message.
38	Telephone call	16/02/2023	INCOMING CALL: Missed Call. Message left.
1499	Telephone call	16/02/2023	INCOMING CALL: No answer. Message left.
1502	Telephone call	16/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
4142	Email	16/02/2023	OUTGOING EMAIL: to stakeholder attaching previous email regarding commencing preparation for EP
39	Telephone call	16/02/2023	OUTGOING CALL: No answer. Unable to leave a message.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1935	Letter - Registered Mail	4/07/2023	Registered letter sent to Chair of Aboriginal Heritage Council to advise that they have been identified as a relevant organisation on OEDP and inviting participation in the consultation process. Recent project update and regulator's brochure also included.
2409	Letter - Registered Mail	11/07/2023	Australia Post Verified as Delivered
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2835	Telephone call	10/08/2023	OUTGOING TELEPHONE CALL to organisation to check if Chair had received registered mail and if he wanted to be briefed or meet. Summary 10/8 Called and spoke @ 3.17pm. confirmed all correspondence through Chair; she will follow up and check that they received the registered letter; SS left her name, mobile number and email address and asked chair to pass on message that COP called to check letter received and requesting confirmation that the org has sufficient information. SS also asked about other means to identify/contact Indigenous relevant persons, however, they confirmed that the org is the correct channel for communication.
4140	Email	23/08/2023	INCOMING EMAIL: from stakeholder re consultation feedback and list of Aboriginal community organisations (incl attachment) and request to be removed from receiving further information
4001	Email	23/08/2023	INCOMING EMAIL from Aboriginal Heritage Council TAS with advice about consultation and request to be taken off the mailing list.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3438	Email	31/08/2023	INCOMING EMAIL: Individual unsubscribed from mailing list using link.

3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3422	Email	14/09/2023	INCOMING EMAIL: from stakeholder to advise they've received the notification about the draft EP chapters online and request for feedback, however, they can't access or open the documents.
3437	Telephone call	19/09/2023	OUTGOING TELEPHONE CALL: No answer, left message.
3800	Email	25/09/2023	OUTGOING EMAIL: from stakeholder to acknowledge that link to EP chapters is working.
4471	Email	25/09/2023	INCOMING EMAIL: from stakeholder confirming link works and apology for delayed response
3803	Email	25/09/2023	OUTGOING EMAIL: to stakeholder to offer a briefing about the Otway Exploration Drilling Program.
3818	Email	26/09/2023	INCOMING EMAIL: from stakeholder providing feedback about the draft EP chapters.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4638	Email	7/11/2023	OUTGOING EMAIL: Email sent to stakeholder with formal letter in response to objections and claims raised.
4671	Email	14/11/2023	OUTGOING EMAIL: sent to stakeholder responding to previously raised objections and claims. Attached letter that addressed a piece of feedback that was missed in a previous response to objections and claims.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**35**
Name of Organisation	Department of Energy Environment and Climate Action (DEECA)
Function, Interest, Activities	Administers the Marine and Coastal Act 2018 which manages planning and management of the marine and coastal environment in Victorian waters.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 35 - Consultation Summary

Id	Event Type	Start Date	Summary
4580	Email	3/11/2022	OUTGOING EMAIL re marine mammal survey
2934	Email	9/11/2022	OUTGOING EMAIL: sent to stakeholders to arrange in-person meeting.
2935	Email	15/11/2022	INCOMING EMAIL: Email from stakeholder requesting information on what ConocoPhillips Australia wishes to discuss in meeting.
2936	Email	15/11/2022	OUTGOING EMAIL: Email sent to stakeholder with a broad agenda on what ConocoPhillips Australia wishes to discuss to provide an update on the EP process for the drilling program.
2937	Email	15/11/2022	INCOMING EMAIL: Stakeholder mentioning elements cross over and wondering if meeting can happen earlier.
2941	Email	17/11/2022	OUTGOING EMAIL to stakeholder confirming meeting and sharing agenda.
4579	Email	17/11/2022	OUTGOING EMAIL re marine mammal surveys.
2939	Email	22/11/2022	OUTGOING EMAIL: Informing other stakeholder has been emailed and waiting on response to finalise meeting time. Meeting time confirmed and other stakeholder to send out meeting invitations.
93	Email	24/11/2022	OUTGOING EMAIL: exchange re leave arrangements
97	Email	25/11/2022	INCOMING EMAIL: from stakeholder confirming extended leave
94	Email	25/11/2022	INCOMING EMAIL: Automatic leave notification.
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4859	Email	28/11/2022	INCOMING EMAIL: From individual thanking ConocoPhillips for meeting and providing contact details for peers within organisation.
3772	Meeting - In-person	28/11/2022	MEETING IN PERSON - Initial briefing on future Exploration Drilling Program.
1818	Meeting - In-person	29/11/2022	MEETING IN PERSON: Briefing to discuss consultation approach for Otway Exploration Drilling Program with relevant persons.
4860	Email	30/11/2022	OUTGOING EMAIL: Providing notes from meeting for review and feedback
4576	Email	30/11/2022	EMAIL EXCHANGE re: ConocoPhillips: Charitable funding opportunity
4420	Email	30/11/2022	INCOMING EMAIL: noting receipt of Meeting Notes and enquiring about process.
4421	Email	30/11/2022	EMAIL EXCHANGE INCOMING AND OUTGOING: explaining consultation processes.
4419	Email	30/11/2022	INCOMING EMAIL thanks for response to clarification of the process.
1603	Email	2/12/2022	OUTGOING EMAIL to individual provided accepted copy of meeting notes.

1604	Email	2/12/2022	INCOMING EMAIL from individual confirming accepted meeting notes.
4852	Email	2/12/2022	OUTGOING EMAIL: Sent to stakeholder reporting whale and other marine life sightings during a recent fly over of the T/49P and Vic/P79 areas.
4850	Email	2/12/2022	INCOMING EMAIL: Recognizing value of previous correspondence and data provided.
4853	Email	7/12/2022	OUTGOING EMAIL: Sent to stakeholder regarding previous conversation about charitable donations. Confirmed team is looking into options and are choosing to be diligent with decision making.
1624	Email	8/12/2022	OUTGOING EMAIL with Preliminary Report for Cetacean Surveys attached and a request for data.
4867	Email	9/12/2022	OUTGOING EMAIL: Responded to individual regarding if we had heard from an Academic Institution.
4564	Email	9/12/2022	INCOMING EMAIL: From individual acknowledging receipt of Preliminary Report for Cetacean Surveys and Data Request and inquiring if ConocoPhillips had heard from an academic institution.
4565	Email	12/12/2022	EMAIL EXCHANGE INCOMING AND OUTGOING: Emails discussing potential funding opportunity.
4868	Email	16/12/2022	OUTGOING EMAIL to stakeholder noting receipt of data.
4424	Email	16/12/2022	INCOMING EMAIL from individual with requested data.
1680	Email	5/01/2023	OUTGOING EMAILS confirming survey flight details and information about a marine survey.
4395	Email	25/01/2023	OUTGOING EMAIL to stakeholder re January survey.
4449	Email	25/01/2023	INCOMING EMAIL: from individual acknowledging update.
734	Email	3/02/2023	OUTGOING EMAIL to stakeholder with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1285	Email	3/02/2023	OUTGOING EMAIL to stakeholder with Notice and attachments re upcoming Otway Drilling Program
4855	Email	3/02/2023	OUTGOING EMAIL: Sent to stakeholder regarding the commencement of environmental plan to undertake an exploration drilling program within the otway basin. Included personalised letter and attached relevant information documents.
1718	Email	8/02/2023	OUTGOING EMAIL with flight details and short information on completed marine survey.
4560	Email	8/02/2023	EMAIL CHAIN INCOMING AND OUTGOING: Emails discussing approval arrangements for use of whale images.
1478	Telephone call	15/02/2023	OUTGOING PHONE CALL - Message left.
1477	Telephone call	15/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1479	Telephone call	15/02/2023	OUTGOING PHONE CALL - No answer.
4610	Email	17/02/2023	OUTGOING EMAIL: Email sent to stakeholders with findings overview for second survey for February.

4232	Email	17/02/2023	INCOMING EMAIL: Email from stakeholder with summary of nearby seismic surveys in the surveillance area and asked for clarification on what it will be used for.
4561	Email	17/02/2023	CORRESPONDENCE INCOMING AND OUTGOING regarding Citizen Science images
4231	Email	20/02/2023	OUTGOING EMAIL with stakeholder re involvement in other marine surveys.
4233	Email	21/02/2023	INCOMING EMAIL re sharing marine survey data from February.
74	Email	22/02/2023	OUTGOING EMAIL to stakeholder following up re information provided re 'Proposed Otway Exploration Drilling Program'.
647	Email	16/03/2023	OUTGOING EMAIL: to stakeholder regarding ConocoPhillips: Aerial Survey summary 14 March 2023
700	Email	27/03/2023	OUTGOING EMAIL to stakeholder sharing information on marine mammal sightings
771	Email	4/04/2023	OUTGOING EMAIL to stakeholder re marine survey flights April with attached photos.
973	Email	13/04/2023	OUTGOING EMAIL with attached information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1801	Email	13/04/2023	INCOMING EMAIL from stakeholder auto-reply confirming leave and offering different contact.
4562	Email	20/04/2023	CORRESPONDENCE INCOMING AND OUTGOING: Email discussion to organise meeting availability.
1019	Email	25/04/2023	OUTGOING EMAIL to stakeholder with details of marine survey for April
1154	Email	11/05/2023	OUTGOING EMAIL to stakeholders re marine mammal survey in May
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1242	Telephone call	22/05/2023	OUTGOING CALL: Discussion around consultation for exploration drilling program.
1247	Email	22/05/2023	INCOMING EMAIL: from stakeholder providing Individual contacts fro consultation
1248	Email	22/05/2023	OUTGOING EMAIL: providing consultation contacts and confirming consultation method.
1249	Telephone call	22/05/2023	OUTGOING CALL: No answer. Left Message.
1250	Telephone call	22/05/2023	OUTGOING PHONE CALL to establish contact.
1571	Email	5/06/2023	OUTGOING EMAIL to stakeholder re marine surveys June 2023

1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1709	Email	15/06/2023	INCOMING EMAIL from stakeholder with consolidated response to proposed Otway Exploration Drilling Program and informing of changes in Government Department.
4563	Email	26/06/2023	CORRESPONDENCE INCOMING AND OUTGOING: Stakeholder advised of the completion of the first coastal survey and brief on results.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3283	Email	8/08/2023	OUTGOING EMAIL to stakeholder with attached surveillance report.
4272	Email	9/08/2023	OUTGOING EMAIL with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
2818	Email	9/08/2023	INCOMING EMAIL: from stakeholder offering information about needed expert consultation and suggesting a meeting.
4854	Email	10/08/2023	INCOMING EMAIL: Sent from stakeholder acknowledging they had received previous email containing cetacean surveillance program report. Stakeholder acknowledged recent delays regarding their coastal surveys due to weather.
3281	Email	10/08/2023	OUTGOING EMAIL - Wishing stakeholder well for second flight for whale observations.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3280	Email	24/08/2023	INCOMING EMAIL: Individual reporting two day flying with no whale sightings. Another flight planned in a couple of weeks. Stakeholder requested link re-sent for report.
3053	Email	24/08/2023	OUTGOING EMAIL: Email to stakeholder on remaining surveillance activities and re-provided the link to the report.
3083	Telephone call	28/08/2023	OUTGOING TELEPHONE CALL: No answer. Left message.
3084	Email	28/08/2023	OUTGOING EMAIL with proposed meeting time for joint briefing about the Otway Exploration Drilling Program.
3349	Email	28/08/2023	INCOMING EMAIL notifying lateness for meeting.
3146	Email	29/08/2023	OUTGOING EMAIL - CALENDAR INVITE to attend briefing
3179	Email	30/08/2023	INCOMING EMAIL: Email from stakeholder after voicemail received to advise stakeholder will be at meeting to discuss project and assessment of underwater cultural heritage.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3362	Meeting - Virtual	4/09/2023	VIRTUAL MEETING - Joint briefing about Cultural Heritage.

3242	Social PinPoint - Feedback on Draft EP	6/09/2023	SOCIAL PINPOINT. Individual provided feedback on Draft EP chapters via online consultation hub.
3250	Email	7/09/2023	INCOMING EMAIL: from stakeholder agreeing to discuss the OPEP.
3254	Email	7/09/2023	INCOMING EMAIL: Emails arranging a time to catch up and discuss the OPEP.
4297	Email	8/09/2023	INCOMING EMAIL - (SENSITIVE) RE very high-leveL review of draft Ep.
4596	Email	8/09/2023	OUTGOING EMAIL: Email sent to relevant organisations to provide copies of draft meeting notes and presentation slides.
3285	Email	8/09/2023	INCOMING EMAIL: AUTO REPLY Auto reply - Out of Office until 18 Sept.
3359	Email	11/09/2023	INCOMING EMAIL: Stakeholder responded to meeting notes.
3360	Email	13/09/2023	INCOMING EMAIL - Stakeholder agrees to edited version of notes of joint meeting.
4296	Email	13/09/2023	OUTGOING EMAIL re ConocoPhillips Meeting Notes - Review - SENSITIVE
4298	Email	13/09/2023	INCOMING AND OUTGOING EMAIL EXCHANGE to stakeholder RE receipt of comment.
3398	Email	13/09/2023	OUTGOING EMAIL: Email sent to stakeholder to acknowledge meeting notes are 'sensitive information'.
3888	Email	28/09/2023	EMAIL EXCHANGE INCOMING AND OUTGOING: Email received from stakeholder re high-level review of draft EP.
4355	Email	2/10/2023	INCOMING EMAIL - Accepting meeting invite
4354	Email	2/10/2023	INCOMING EMAIL: ConocoPhillips Australia sent meeting invite to brief stakeholder on the drilling program. Stakeholder requested a change in day/time.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4504	Email	6/10/2023	OUTGOING EMAIL: Email sent to stakeholder following briefing with attached meeting minutes and briefing slides.
4508	Email	9/10/2023	INCOMING EMAIL: Email from stakeholder committing to reviewing meeting minutes and advised that the engagement doesn't reflect engaging with the organisation as a whole. The stakeholder provided further contacts.
4509	Email	9/10/2023	INCOMING EMAIL: Follow up email from stakeholder with contact numbers for further organisation engagement.
4004	Email	9/10/2023	OUTGOING EMAIL Email to stakeholder asking for the reasoning behind some of the findings.
4229	Email	23/10/2023	OUTGOING EMAIL: Response to objections and claims sent to relevant organisation.
4357	Meeting - Virtual	26/10/2023	VIRTUAL MEETING - to provide overview of exploration program and consultation process.

4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4612	Email	7/11/2023	INCOMING EMAIL: Email from stakeholder with data for preliminary report.
4614	Email	7/11/2023	OUTGOING EMAIL: Email sent to stakeholder with details of survey.
4654	Email	8/11/2023	OUTGOING EMAIL: Email sent to stakeholder with formal letter
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**36**
Name of Organisation	Victorian Fishing Authority (VFA)
Function, Interest, Activities	Independent Statutory Authority responsible for effectively managing Vicotira's fisheries Resources
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 36 - Consultation Summary

Id	Event Type	Start Date	Summary
4480	Email	9/09/2022	Outgoing email to relevant stakeholder regarding a request for fishing data
4481	Email	15/09/2022	Incoming email from relevant stakeholder responding to a request for fishing data.
4483	Email	16/09/2022	Incoming email from relevant stakeholder regarding access to fishing data
4486	Email	8/11/2022	Outgoing Email: from relevant stakeholder regarding a request for fishing data.
4493	Email	22/11/2022	OUTGOING EMAIL: email to relevant stakeholder regarding setting up a meeting with ConocoPhillips Australia
2523	Email	22/11/2022	INCOMING EMAIL: from relevant stakeholder responding to a meeting request.
2524	Email	22/11/2022	OUTGOING EMAIL - invitation for Teams meeting
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
2522	Meeting - Virtual	28/11/2022	VIRTUAL MEETING with stakeholder regarding Otway Exploration Drilling Program and Environmental Plan Development.
1596	Email	30/11/2022	OUTGOING EMAIL to relevant stakeholder containing with attachments for review - meeting notes
1606	Email	2/12/2022	INCOMING EMAIL from relevant stakeholder containing review notes on meeting.
1628	Email	12/12/2022	OUTGOING EMAIL final version of edited meeting notes.
1288	Email	3/02/2023	OUTGOING EMAIL with attachments advising on upcoming Otway drilling program
1481	Telephone call	15/02/2023	OUTGOING CALL: No answer. Left message.
1482	Telephone call	15/02/2023	OUTGOING CALL: No answer. Left message.
1483	Telephone call	15/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1583	Telephone call	22/02/2023	OUTGOING CALL: No answer, Left message.
1584	Telephone call	22/02/2023	OUTGOING CALL: To individual to ensure initial correspondence was received.
1585	Telephone call	22/02/2023	OUTGOING CALL: No answer. Unable to leave a message.
4515	Email	1/03/2023	OUTGOING EMAIL sent to relevant stakeholder requesting meeting between ConocoPhillips Australia and the VFA
4516	Email	2/03/2023	INCOMING EMAIL from relevant stakeholder regarding a date for a meeting between ConocoPhillips Australia and VFA
4518	Email	2/03/2023	INCOMING EMAIL from relevant stakeholder suggesting a suitable time and date for a meeting between ConocoPhillips Australia and VFA
4517	Email	2/03/2023	OUTGOING EMAIL to relevant stakeholder suggesting a time and date for a meeting between ConocoPhillips Australia and VFA
4519	Email	2/03/2023	Outgoing email to relevant stakeholder suggesting suitable time for a meeting between ConocoPhillips Australia and VFA
705	Meeting - Virtual	6/03/2023	VIRTUAL MEETING - to confirm consultation approach and agree the way forward.

4520	Email	6/03/2023	OUTGOING EMAIL to relevant stakeholder following up from the ConocoPhillips Australia Meeting
4521	Email	16/03/2023	INCOMING EMAIL from relevant stakeholder stating they were happy with the meeting notes
4524	Email	27/03/2023	OUTGOING EMAIL to individual containing the accepted meeting notes between ConocoPhillips Australia and VFA.
4525	Email	27/03/2023	INCOMING EMAIL - from relevant stakeholder containing an automatic response in regards to minutes of the meeting sent previously.
715	Email	3/04/2023	OUTGOING EMAIL with notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1117	Telephone call	4/05/2023	OUTGOING CALL: No answer. Left Message.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2824	Telephone call	10/08/2023	OUTGOING CALL: Spoke to individual who advised they are currently on extended leave. Advised to call colleague.
2825	Telephone call	10/08/2023	OUTGOING CALL: No answer. Left message.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3364	Telephone call	14/09/2023	OUTGOING CALL. Called and spoke to individual seeking feedback, objections and claims on draft EP chapters.
3375	Email	14/09/2023	OUTGOING EMAIL with formal letter attached in response to objections and claims raised.
3392	Email	14/09/2023	INCOMING EMAIL: Auto reply indicating out of office from recipient
3378	Email	14/09/2023	OUTGOING EMAIL: Sent follow up email to individual with links to consultation hub and previous responses to objections and claims
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**37**
Name of Organisation	Department of Transport and Planning (DOT)
Identification Method	Desktop Research
Function, Interest, Activities	Victorian response agency responsible for a marine pollution incident in State coastal waters.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 37 - Consultation Summary

Id	Event Type	Start Date	Summary
2938	Email	17/11/2022	OUTGOING EMAIL To organise meeting as suggested by another stakeholder.
2940	Email	17/11/2022	INCOMING EMAIL nominating alternative meeting attendee.
2941	Email	17/11/2022	OUTGOING EMAIL to stakeholder confirming meeting and sharing agenda.
1818	Meeting - In-person	29/11/2022	MEETING IN PERSON: Briefing to discuss consultation approach for Otway Exploration Drilling Program with relevant persons.
1601	Email	2/12/2022	OUTGOING EMAIL attaching meeting notes for review
1605	Email	2/12/2022	INCOMING EMAIL confirming receipt of meeting notes and making a minor editorial change.
1622	Email	7/12/2022	INCOMING EMAIL - Stakeholder sent Guidance Note regarding department changes.
1627	Email	12/12/2022	INCOMING AND OUTGOING EMAIL: Meeting Notes and confirmation of details
737	Email	3/02/2023	OUTGOING EMAIL providing stakeholder notice of ConocoPhillips Australia Otway Exploration Drilling Program with attachments.
1484	Telephone call	15/02/2023	OUTGOING CALL: No answer. Left message.
37	Telephone call	15/02/2023	INCOMING CALL: From individual confirming he had received initial project information and discussed consultation moving forward.
102	Email	23/02/2023	OUTGOING EMAIL: to establish an initial consultation meeting with stakeholder re ConocoPhillips Australia Proposed Exploration Drilling Activity
2504	Email	1/03/2023	INCOMING EMAIL - Stakeholder acknowledged meeting agenda notes and provided availability for online consultation.
525	Email	1/03/2023	OUTGOING EMAIL - Establish meeting arrangements - responding to stakeholders' availability confirming consultation time. Requested information regarding stakeholder organisation's participants.
551	Email	6/03/2023	OUTGOING EMAIL - Teams meeting request to establish consultation sent to stakeholder with suggested agenda.
1819	Meeting - Virtual	27/03/2023	MEETING VIRTUAL: Initial consultation with relevant persons to discuss OPEP development.
1252	Email	12/04/2023	INCOMING EMAIL: from stakeholder with follow up to meeting actions and providing guidance including department name changes. Queried if minutes would be circulated from ConocoPhillips.
949	Email	13/04/2023	OUTGOING EMAIL providing information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
954	Email	13/04/2023	OUTGOING EMAIL providing information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2505	Email	22/05/2023	OUTGOING EMAIL: Responded to stakeholders meeting notes query. Attached copy of meeting notes as well as draft OPEP. Requested availability for briefing.
2506	Email	25/05/2023	INCOMING EMAIL - Stakeholder confirmed review time period and provided availability for briefing.

1356	Email	25/05/2023	OUTGOING EMAIL - Responded to stakeholders' review questions, advised meeting time availability for ConocoPhillips will be confirmed.
1572	Email	6/06/2023	OUTGOING EMAIL to stakeholder to confirm time and date of online briefing.
2511	Email	6/06/2023	INCOMING EMAIL: from stakeholder confirming online meeting availability.
2510	Email	6/06/2023	OUTGOING EMAIL: Responding to stakeholder's availability for online meeting.
2509	Email	6/06/2023	OUTGOING EMAIL: INVITE to Teams meeting
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1658	Meeting - Virtual	13/06/2023	MEETING VIRTUAL: Consultation with relevant persons regarding OPEP.
1667	Email	13/06/2023	INCOMING EMAIL: notification that stakeholder has downloaded a file.
2507	Email	13/06/2023	INCOMING EMAIL - Stakeholder acknowledged successful consultation shoreline plan difficulty downloading.
1668	Email	13/06/2023	OUTGOING EMAIL - Responded to stakeholder difficulties with file download and provided the files as attachmentt the shoreline plan files.
1710	Email	16/06/2023	OUTGOING EMAIL - to stakeholder with attached meeting notes for review and contribution.
2493	Email	18/07/2023	OUTGOING EMAIL: to stakeholder following up feedback regarding OPEP. Attached meeting notes from last session again for review and contribution.
2502	Email	19/07/2023	INCOMING EMAIL - Stakeholder responded regarding OPEP and meeting review and consideration. Stakeholder requested NEBA criteria added to the OPEP.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2890	Email	27/07/2023	OUTGOING EMAIL: email to relevant stakeholder informing them the consultation has been extended
2691	Email	1/08/2023	OUTGOING EMAIL - TEAM - Acknowledging meeting notes have been updated and that a review of NEBA and OPEP has been undertaken.
2887	Email	7/08/2023	INCOMING EMAIL: email from relevant stakeholder suggesting another stakeholder group to contact
2809	Email	9/08/2023	OUTGOING EMAIL: ConocoPhillips Australia Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3377	Email	14/09/2023	OUTGOING EMAIL to stakeholder with formal response to feedback received through consultation to date including more recent version of the OPEP.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**38**
Name of Organisation	Department of Jobs Skills Industry and Regions (DJSIR) Victoria
Identification Method	Desktop Research
Function, Interest, Activities	DJSIR is the deparment responsible for regulating offshore oil and gas exploration and development activities in State waters.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 38 - Consultation Summary

Id	Event Type	Start Date	Summary
5	Email	3/02/2023	OUTGOING EMAIL: with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4829	Social Pinpoint Webinar Registration	14/11/2023	Stakeholder registered for future webinars
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**39**
Name of Organisation	Maritime Safety Victoria
Identification Method	Desktop Research
Function, Interest, Activities	Responsible for marine safety in state waters
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 39 - Consultation Summary

Id	Event Type	Start Date	Summary
738	Email	3/02/2023	OUTGOING EMAIL: to stakeholder providing information about Otway Exploration Drilling Program with attachments.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**40**
Name of Organisation	Port Authority of NSW
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Port Authority of NSW acts as the harbor master for NSW's six commercial seaports. It manages shipping movements, safety security and emergency response.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 40 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1284	Email	3/02/2023	OUTGOING EMAIL: to stakeholder notifying that preparation of EP to undertake exploration drilling program has commenced (incl formal letter and two fact sheets)
75	Email	22/02/2023	OUTGOING EMAIL: to stakeholder with follow up email regarding notification of exploration drilling program
78	Email	22/02/2023	INCOMING EMAIL: from stakeholder responding to Otway follow up email.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3351	Email	24/08/2023	INCOMING EMAIL from stakeholder containing an auto reply
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**41**
Name of Organisation	Transport NSW
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Transport NSW is the lead state agency for an marine pollution response in State waters.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 41 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1283	Email	3/02/2023	OUTGOING EMAIL: to stakeholder advising preparation has commenced of an EP to undertake exploration drilling (including formal letter and two fact sheets)
77	Email	22/02/2023	OUTGOING EMAIL: to stakeholder with follow up regarding the Otway drilling program
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2808	Email	9/08/2023	OUTGOING EMAIL: to stakeholder with letter correspondence regarding Otway project
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3306	Email	31/08/2023	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**42**
Name of Organisation	Department of Primary Industries (NSW)
Identification Method	Desktop Research
Function, Interest, Activities	Responsible for effectively managing NSW fisheries
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 42 - Consultation Summary

Id	Event Type	Start Date	Summary
4245	Email	22/11/2022	OUTGOING EMAIL to stakeholder following up on request for Fishing Data
1595	Email	29/11/2022	INCOMING EMAIL from stakeholder in response to informal request for fishing data with TRAIL
1694	Email	3/01/2023	INCOMING EMAIL: sent from stakeholder automated reply confirming receival of previously sent email
743	Email	3/02/2023	OUTGOING EMAIL to stakeholder with attachments re ConocoPhillips Australia Otway Exploration Drilling Program
742	Email	3/02/2023	OUTGOING EMAIL to stakeholder with attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1485	Telephone call	15/02/2023	OUTGOING CALL: No answer. Left message.
1486	Telephone call	15/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1487	Email	15/02/2023	OUTGOING EMAIL re-sending information re Drilling Program by request.
1491	Telephone call	15/02/2023	OUTGOING CALL: To organisation to confirm contact details.
1492	Telephone call	15/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence sent.
1508	Telephone call	16/02/2023	INCOMING CALL: From organisation confirming receipt of initial correspondence and discussing consultation approach.
1517	Telephone call	16/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence. Staff member let us know that they are not the relevant stakeholders.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
4645	Telephone call	15/09/2023	INCOMING CALL: Missed Call. Voicemail left.
3531	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**43**
Name of Organisation	Department for Infrastructure and Transport (DIT)
Identification Method	Desktop Research
Function, Interest, Activities	DTI is the Control Agency for oil pollution in state waters and ensures the South Australian Marine Spill Contingency Action Plan is maintained to deal with oil spills wherever they occur in its territory.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 43 - Consultation Summary

Id	Event Type	Start Date	Summary
638	Email	13/03/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2813	Email	8/08/2023	OUTGOING EMAIL: to stakeholder with attached correspondence regarding exploration drilling program
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**48**
Name of Organisation	Department of Primary Industries and Regions (SA)
Identification Method	Desktop Research
Function, Interest, Activities	Development agency for SA primary industries and regions including aquaculture industry and commercial fishing.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 48 - Consultation Summary

Id	Event Type	Start Date	Summary
2581	Email	5/09/2022	INCOMING EMAIL: Stakeholder sent data request form to be filled in.
2583	Email	12/09/2022	OUTGOING EMAIL: Responded to stakeholder regarding data request form.
2585	Email	24/10/2022	OUTGOING EMAIL: Responded to stakeholder, thanked them for sending data.
2584	Email	24/10/2022	INCOMING EMAIL: Stakeholder sent requested datasets.
2533	Email	24/10/2022	INCOMING EMAIL: Stakeholder responded to prior thanks.
1744	Email	19/06/2023	INCOMING EMAIL: sent from stakeholder automated reply confirming email was received.

Organisation Id	**50**
Name of Organisation	Tasmanian Seafood Industry Council (TSIC)
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Peak Indsutry Assocaition for Tasmania representing fishers and processors.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 50 - Consultation Summary

Id	Event Type	Start Date	Summary
2706	Telephone call	11/11/2022	OUTGOING CALL: No answer. Left Message.
4236	Email	11/11/2022	OUTGOING EMAIL: to stakeholder re previous discussions for exploration plans and fee-for-service arrangement
4238	Email	14/11/2022	INCOMING EMAIL: from stakeholder stating fee-for-service request to be put to Board
4239	Email	14/11/2022	OUTGOING EMAIL: to stakeholder enquiring on outcome of Board consideration and offer for further discussions and guidance
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4347	Email	30/11/2022	INCOMING EMAIL: from stakeholder cancelling meeting due to illness
4240	Email	30/11/2022	OUTGOING EMAIL: to stakeholder with offer to reschedule meeting due to stakeholder illness
4241	Email	12/12/2022	OUTGOING EMAIL: to stakeholder to reschedule meeting
4242	Email	13/12/2022	INCOMING EMAIL: from stakeholder re rescheduling meeting
4243	Email	13/12/2022	OUTGOING EMAIL: to stakeholder with confirmed meeting time
4248	Email	3/01/2023	INCOMING EMAIL: from stakeholder with consultation proposal attached
9	Telephone call	7/02/2023	OUTGOING CALL: To individual to advise ConocoPhillips Australia has commenced drilling EP communication and discuss consultation approach.
10	Email	7/02/2023	OUTGOING EMAIL: ConocoPhillips/ TSIC Meeting Invitation sent
763	Email	8/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of EP to undertake offshore drilling program. With personalised letter and information sheets
21	Email	10/02/2023	OUTGOING EMAIL: to stakeholder re amending proposal to reflect updated payment schedule information
25	Meeting - Virtual	14/02/2023	VIRTUAL MEETING with stakeholder to discuss initial mailout and consultation approach.
35	Email	15/02/2023	OUTGOING EMAIL: to stakeholder with phone call follow up. Information sheets and draft letter attached for communication with org members
1512	Telephone call	16/02/2023	Outgoing call to office to speak with stakeholder. Relevant stakeholder is in a video meeting and committed to calling after 3pm.
1522	Telephone call	16/02/2023	OUTGOING CALL: To individual to confirm receipt of initial consultation.
475	Email	27/02/2023	INCOMING EMAIL: from stakeholder with proposed package for mailout pending approval and any additional information
476	Email	27/02/2023	OUTGOING EMAIL: To stakeholder with response to member mail out and updated pdf attached and request to set a meeting
522	Email	1/03/2023	INCOMING EMAIL: from stakeholder to confirm meeting date and confirmation that letter has been emailed to members
523	Email	1/03/2023	OUTGOING EMAIL: to stakeholder re member mail out and confirmation of meeting time. Notice that COP will be available for community drop in sessions
524	Email	1/03/2023	OUTGOING EMAIL: to stakeholder with meeting details confirmation
1822	Meeting - In-person	14/03/2023	Briefing update to organisation.
698	Email	27/03/2023	OUTGOING EMAIL: to stakeholder with meeting notes for review.
1149	Email	9/05/2023	INCOMING EMAIL: from stakeholder with apology for delayed response and proposal to have staff partake in a phone survey
1151	Email	10/05/2023	OUTGOING EMAIL: to stakeholder with follow up re their port visits and confirmation that a phone survey is a smart way to proceed. Follow up re community information sessions
2567	Email	11/05/2023	INCOMING EMAIL: Stakeholder auto reply advising of limited access to emails whilst travelling.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1244	Telephone call	22/05/2023	OUTGOING CALL: No answer. Left Message.
1267	Telephone call	22/05/2023	OUTGOING CALL: To individual to discuss the next phase of consultation with commercial fishing industry.
1274	Email	22/05/2023	OUTGOING EMAIL: to stakeholder with follow up re call and proposed Information Sheets and current project update.
1311	Email	23/05/2023	OUTGOING EMAIL: to stakeholder re holding distribution of provided Information Sheets
1314	Email	23/05/2023	INCOMING EMAIL: from stakeholder re request to hold sending commercial fishing information sheet.
1821	Meeting - Virtual	2/06/2023	Project update briefing provided to organisation.
1473	Email	5/06/2023	OUTGOING EMAIL: to stakeholder with meeting notes for review and updated information sheets.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4348	Email	8/06/2023	INCOMING EMAIL: from stakeholder with draft letter and questionnaire
1646	Email	12/06/2023	OUTCOMING EMAIL: to stakeholder confirming proposed letter is fine and request to amend fact sheet. Confirming dates for next community information session
1659	Email	13/06/2023	INCOMING EMAIL: Response from individual confirming session availability
1660	Email	13/06/2023	OUTGOING EMAIL: Email suggesting time of commercial fishing session.
1787	Telephone call	21/06/2023	OUTGOING CALL: No answer. Left message.
1786	Telephone call	21/06/2023	INCOMING CALL: Missed call. Message left.
1779	Telephone call	21/06/2023	OUTGOING CALL: No answer. Left message.
1788	Telephone call	22/06/2023	OUTGOING CALL: No answer. Left Message.
2134	Telephone call	6/07/2023	OUTGOING CALL: No answer. Left Message.
2339	Telephone call	10/07/2023	INCOMING CALL: Missed call. Message left.
2340	Telephone call	10/07/2023	OUTGOING CALL: No answer. Left message.
2341	Telephone call	11/07/2023	OUTGOING CALL: No answer. Left Message.
2342	SMS	11/07/2023	SMS to stakeholder enquiring about planned commercial fishing information session.
2347	Telephone call	11/07/2023	OUTGOINGN CALL: To individual to discuss final details ahead of commerical fishers specific session on King Island.
2643	Community Session	13/07/2023	King Island Fishers Information Session - King Island 3-5pm
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2832	Telephone call	10/08/2023	OUTGOING CALL: No answer. Left message.
2855	Telephone call	11/08/2023	INCOMING CALL: Individual returned call and discussed close-out report from King Island sessions.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3093	Email	29/08/2023	INCOMING EMAIL: Individual emailed requesting to be added to distribution list
3094	Email	29/08/2023	OUTGOING EMAIL: Responded to request and provided most recent project update.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3270	Email	11/09/2023	OUTGOING EMAIL: to individuals regarding feedback on EP Chapters
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
4249	Email	14/09/2023	OUTGOING EMAIL: to stakeholder with response to objections and claims (incl attachments)
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
4250	Email	26/09/2023	OUTGOING EMAIL: to stakeholders touching base regarding feedback on draft EP
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3998	Email	3/10/2023	INCOMING EMAIL: from stakeholder with feedback from review of chapters stating no immediate concerns with content other than they do not know exact location of drilling site
3879	Email	3/10/2023	OUTGOING EMAIL: to stakeholder thanking them for feedback on EP and noted further advice for potential impacts
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4844	Telephone call	17/11/2023	OUTGOING TELEPHONE CALL: Call to individual to advise that the EP has passed completeness check and is now available for public comment.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4849	Email	21/11/2023	OUTGOING EMAIL: sent to stakeholder requesting invoice for fee-for-service arrangement that is still outstanding. Attached the consultation proposal that was confirmed earlier in the year for reference.
4873	Email	27/11/2023	INCOMING EMAIL: sent from stakeholder confirming invoice will be organised this week.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**72**
Name of Organisation	King Island Shire Council
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Local Council located within planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 72 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1689	Email	31/01/2023	OUTGOING EMAIL: initiate contact with stakeholder and attached letter of introduction and requested a meeting.
2485	Telephone call	3/02/2023	OUTGOING TELEPHONE CALL: Spoke with stakeholder, they requested information be sent to them and acknowledged the need for a meeting
772	Email	3/02/2023	OUTGOING EMAIL: Acknowledged positive phone call with stakeholder, followed up with requested project overview information attached, confirmed further contact around scheduling a meeting would occur next week.
788	Email	9/02/2023	OUTGOING EMAIL: Email sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview.
4642	Email	9/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1733	Email	14/02/2023	OUTGOING EMAIL: Sent to relevant stakeholder attempting to schedule meeting and confirm possible participants.
2486	Email	14/02/2023	INCOMING EMAIL: Individual replied with availability for meetings.
2487	Email	16/02/2023	OUTGOING EMAIL: Responded to stakeholder regarding scheduling a meeting, proposed a day and time and introduced participants
2489	Email	17/02/2023	INCOMING EMAIL: Individual asking if a town hall meeting and the King Island public consultation be done on the same day.
2488	Email	17/02/2023	INCOMING EMAIL: Individual confirming meeting availability.
2490	Email	20/02/2023	OUTGOING EMAIL: Team responding to stakeholders meeting availability and enquiry into town hall and public consultation.
1554	Telephone call	21/02/2023	OUTGOING CALL: Individual not available, Confirmed receipt of emails.
1751	Email	21/02/2023	INCOMING EMAIL: Individual acknowledging final meeting details and consultation method.
1085	Community Session	15/03/2023	Community Drop-in session hosted. 11.30-2.30 3-7pm
2418	Meeting - In-person	24/03/2023	IN PERSON MEETING with organisation discussing the Otway Drilling Exploration and information from the environmental plan. Answered key concerns regarding drilling processes. c
2419	Email	30/03/2023	OUTGOING EMAIL: Team thanking the councilors for their time at the meeting and sent across draft meeting notes for review.
4583	Email	31/03/2023	INCOMING EMAIL: Relevant stakeholder saying thank you for the meeting and that they are happy with the meeting notes.
4641	Email	14/04/2023	OUTGOING EMAIL: Team asking stakeholders appropriate scheduling of a community session to be held on King Island.
4366	Email	12/05/2023	OUTGOING EMAIL: to relevant stakeholder containing an invitation to the Otway Exploration Drilling Program town hall session.
4367	Email	12/05/2023	INCOMING EMAIL: from relevant stakeholder stating they will be on leave and suggesting an alternative contact.
4368	Email	12/05/2023	OUTGOING EMAIL: to relevant stakeholder suggesting an alternative person to liaise with the stakeholder.
1165	Email	12/05/2023	OUTGOING EMAIL: to relevant stakeholder extending an invitation to the Otway Exploration Drilling Program attempt to arrange meeting.
4369	Email	12/05/2023	OUTGOING EMAIL: to relevant stakeholder requesting a meeting regarding the Otway Exploration Drilling Program.
1304	Community Session	17/05/2023	Community Information Session held to provide overview of proposed Otway Exploration Drilling Program.
4370	Email	17/05/2023	INCOMING EMAIL: requesting a meeting regarding the Otway Exploration Drilling Program
4371	Email	17/05/2023	OUTGOING EMAIL: to relevant stakeholder confirming a meeting regarding the Otway Exploration Drilling Program
4856	Meeting - In-person	18/05/2023	MEETING - In person with relevant persons to discuss location-specific potential environmental risks and hazards.
1219	Email	18/05/2023	OUTGOING EMAIL: to relevant stakeholder providing them with a project update regarding the ConocoPhillips Australia Otway Exploration Drilling Program
1366	Email	30/05/2023	Outgoing email to relevant stakeholder providing them with notes of meeting with ConocoPhillips
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1826	Telephone call	30/06/2023	Outgoing call to relevant person. They were unavailable to speak, team agreed to send an email with relevant information.
1825	Email	30/06/2023	OUTGOING EMAIL: to relevant stakeholder requesting a meeting.
1829	Campaign Email	30/06/2023	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
1847	Email	3/07/2023	OUTGOING EMAIL: Team sent relevant stakeholder offering a Project Update Briefing for Otway Exploration Drilling Program
1976	Telephone call	5/07/2023	OUTGOING CALL: No answer. Left Message.
2097	Telephone call	6/07/2023	OUTGOING CALL: Spoke with receptionist, individual unavailable.
2098	Email	6/07/2023	OUTGOING EMAIL: request for Project Update Briefing on ConocoPhillips Australia Otway Exploration Drilling Program.
2197	Telephone call	7/07/2023	OUTGOING TELEPHONE CALL to individual to check 'sufficient information' and preferred ongoing consultation.
2343	Telephone call	11/07/2023	OUTGOING CALL: To individual following up on offer of meeting when on King Island next.
3903	Email	11/07/2023	OUTGOING EMAIL: Team sent relevant stakeholder regarding setting up a separate briefing on King Island
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2767	Social Pinpoint Webinar Registration	2/08/2023	Stakeholder registered for future webinars
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3316	Email	31/08/2023	INCOMING EMAIL: with Auto reply
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
4014	Meeting - Virtual	29/09/2023	VIRTUAL MEETING to provide project update and response to objections and claims
3880	Email	3/10/2023	OUTGOING EMAIL: Team sent relevant stakeholder containing draft notes from a copy of a presentation from a meeting.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4217	Email	23/10/2023	OUTGOING EMAIL: Email sent to stakeholder with close out letter to stakeholder responding to objections and claims raised.
4224	Email	23/10/2023	OUTGOING EMAIL: Sent response to objections and claims received.
4331	Email	26/10/2023	OUTGOING EMAIL: Sent to relevant stakeholder providing an update regarding the ConocoPhillips Australia Otway Exploration Drilling Program
4332	Email	26/10/2023	INCOMING EMAIL: Relevant stakeholder stating they received the update, and they were away on holiday.
4608	Email	27/10/2023	INCOMING EMAIL: sent from stakeholder regarding ongoing objection and claim correspondence. Stakeholder wished to understand further some of the decision making around forward operating bases and what would be required.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4630	Email	7/11/2023	OUTGOING EMAIL: sent to stakeholder responding to their previous query about forward operating bases. Noted how they were chosen and what would occur in the unlikely event of a spill.
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4912	Telephone call	4/01/2024	OUTGOING CALL: Spoke with individual who confirmed confidentiality preference for EP.

Organisation Id	**73**
Name of Organisation	King Island Landcare Group
Identification Method	Consultation Hub – Consultation Survey
Function, Interest, Activities	non-profit organisation that promotes co-ordinated and integrated management of natural resources, which will contribute to the economic and environmental sustainability of King Island.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 73 - Consultation Summary

Id	Event Type	Start Date	Summary
1172	Email	12/05/2023	OUTGOING EMAIL: to relevant stakeholder with the link to the proposed Otway Exploration Drilling Program website and organising a meeting.
1609	Social Pinpoint Complete Consultation Survey	15/05/2023	Individual completed Stakeholder Survey
1210	Social Pinpoint Registered for Updates	15/05/2023	SOCIAL PINPOINT REGISTERED FOR UPDATES Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
3992	Email	17/05/2023	INCOMING EMAIL: Individual informing they will attend meeting but won't stay around for dinner
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1829	Campaign Email	30/06/2023	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
2197	Telephone call	7/07/2023	OUTGOING TELEPHONE CALL to individual to check 'sufficient information' and preferred ongoing consultation.
2198	Email	7/07/2023	OUTGOING EMAIL: email to relevant stakeholder requesting confirmation of wording of Objection.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3373	Email	14/09/2023	OUTGOING EMAIL: sent to relevant stakeholder with formal letter in response to objections and claims raised.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**74**
Name of Organisation	Department of Energy and Mining SA
Identification Method	Desktop Research
Function, Interest, Activities	The Department is responsible for onshore extractive and energy industries.
Regulation Category	Section 25 (1) (b)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 74 - Consultation Summary

Id	Event Type	Start Date	Summary
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2783	Email	27/07/2023	INCOMING EMAIL: from relevant stakeholder containing an automatic response stating the email has been received.
2815	Email	8/08/2023	OUTGOING EMAIL: sent to relevant stakeholder requesting a meeting regarding the ConocoPhillips Australia Otway Exploration Drilling Program
2814	Email	8/08/2023	OUTGOING EMAIL: ConocoPhillips Australia Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**77**
Name of Organisation	Mornington Peninsula Shire
Identification Method	Desktop Research
Function, Interest, Activities	Local Council located within planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 77 - Consultation Summary

Id	Event Type	Start Date	Summary
2744	Email	6/03/2023	OUTGOING EMAIL: NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
562	Email	6/03/2023	OUTGOING EMAIL/NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
4344	Email	6/03/2023	OUTGOING EMAIL: containing information and attachments to relevant stakeholder regarding ConocoPhillips Australia Otway Exploration Drilling Program
564	Email	6/03/2023	OUTGOING EMAIL/NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
932	Email	13/04/2023	Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2620	Telephone call	27/07/2023	OUTGOING TELEPHONE CALL: to individual. Appropriate representative was unavailable and confirmed they would call back when able to. Also provided with a new email address for direct contact with CEO.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2628	Telephone call	28/07/2023	Incoming call - request for more project information.
2745	Email	28/07/2023	OUTGOING EMAIL: Council interested in the project
2798	Email	4/08/2023	INCOMING EMAIL: to advise availability for briefing.
2746	Email	4/08/2023	INCOMING AND OUTGOING EMAIL: Which times suits for meeting?
2790	SMS	8/08/2023	OUTGOING SMS to follow up email sent 28/7/23 to offer briefing for organisation
2797	Email	8/08/2023	OUTGOING EMAIL: to confirm briefing for Mornington Peninsula on Friday 16 August 2023 from 2-3pm.
4346	Email	8/08/2023	OUTGOING EMAIL: to relevant stakeholder regarding potential dates for a team's meeting to discuss ConocoPhillips Australia Otway Exploration Drilling Program
2978	Meeting - Virtual	18/08/2023	VIRTUAL MEETING and presentation for relevant person in organisation
2976	Email	20/08/2023	OUTGOING EMAIL to relevant stakeholder containing draft meeting notes from briefing for Mornington Peninsula Coastal Planner about the Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3331	Email	24/08/2023	INCOMING EMAIL: Individual auto reply - received email
4345	Email	28/08/2023	OUTGOING EMAIL: to relevant stakeholder providing more information regarding the ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**78**
Name of Organisation	Circular Head Council
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Local Council located within planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 78 - Consultation Summary

Id	Event Type	Start Date	Summary
791	Email	9/02/2023	OUTGOING email sent to stakeholder regarding commencement of environmental plan for Otway exploration drilling program. Full Stop included personalized letter and attachments with relevant information.
1723	Email	9/02/2023	Incoming automatic response email regarding ConocoPhillips Australia Otway Exploration Drilling Program
1729	Email	10/02/2023	Incoming email from relevant stakeholder stating they have forwarded the information regarding ConocoPhillips Australia Otway Exploration Drilling Program onto relevant persons.
1531	Telephone call	20/02/2023	OUTGOING TELEPHONE CALL: to stakeholder
1537	Email	20/02/2023	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2623	Telephone call	27/07/2023	OUTGOING TELEPHONE CALL to stakeholder, asked to speak regarding Otway exploration drilling program. Told appropriate person to speak with is in a meeting and they requested that they were the ones to call us back.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2650	Telephone call	31/07/2023	INCOMING CALL: From individual and discussed proposed activity and consultation.
2719	Email	2/08/2023	INCOMING EMAIL: New manager introducing and asking to be contacted.
2720	Email	2/08/2023	OUTGOING EMAIL: Team organising teams meeting with new Manager.
2802	Email	3/08/2023	INCOMING EMAIL: Stakeholder sharing meeting times that suit.
2801	Email	8/08/2023	OUTGOING EMAIL: Team touching base for new meeting time.
2796	Email	8/08/2023	OUTGOING EMAIL: Microsoft Team Meeting invitation
2800	Email	8/08/2023	INCOMING EMAIL: Stakeholder has new times available.
2792	Email	8/08/2023	OUTGOING EMAIL: confirming time for meeting
2795	Email	8/08/2023	INCOMING EMAIL: Individual responded confirming meeting time
3258	Meeting - Virtual	14/08/2023	MEETING VIRTUAL: Initial briefing provided to organisation regarding the Otway Exploration Drilling Program and potential impacts of drilling exploration within T/49P.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3417	Email	24/08/2023	INCOMING EMAIL: Auto reply acknowledging receipt of email
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**98**
Name of Organisation	Corangamite Shire Council
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Local Council located within planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 98 - Consultation Summary

Id	Event Type	Start Date	Summary
86	Email	16/02/2023	OUTGOING email to relevant stakeholder regarding who the new CEO is for Corangamite Shire is.
644	Email	14/03/2023	OUTGOING EMAIL: to relevant stakeholder requesting a meeting regarding the ConocoPhillips Otway Exploration Drilling Program
892	Email	13/04/2023	OUTGOING EMAIL: Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2456	Telephone call	17/07/2023	Outgoing call to offer briefing.
2619	Telephone call	27/07/2023	OUTGOING TELEPHONE CALL: to stakeholder regarding otway exploration drilling program, they registered their interest in receiving information and consultation.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2638	Email	31/07/2023	OUTGOING EMAIL: Follow-up email regarding telephone call attempting to confirm interest as a relevant person and in consultation regarding Otway project. Included attached information documents.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4341	Email	26/10/2023	INCOMING EMAIL: Advice received from stakeholder about new role at Council and new email address.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**99**
Name of Organisation	District Council of Grant
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 99 - Consultation Summary

Id	Event Type	Start Date	Summary
142	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
500	Email	28/02/2023	Automated reply to 'Proposed Otway Exploration Drilling Program'
569	Email	6/03/2023	OUTGOING EMAIL to stakeholder regarding ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2624	Telephone call	27/07/2023	OUTGOING TELEPHONE CALL: to stakeholder, they would like current information re-sent and they will respond confirming whether or not they would like to be consulted as a relevant organisation.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2637	Email	31/07/2023	OUTGOING EMAIL: Follow-up email regarding telephone call attempting to confirm interest as a relevant person and in consultation regarding Otway project. Included attached information documents.
2648	Email	31/07/2023	INCOMING EMAIL: Automatic Response receive RE: ConocoPhillips Australia Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**100**
Name of Organisation	Burnie City Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 100 - Consultation Summary

Id	Event Type	Start Date	Summary
134	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
135	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
4121	Email	27/02/2023	INCOMING EMAIL: Automatic reply acknowledging email was received
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2626	Telephone call	27/07/2023	OUTGOING TELEPHONE CALL: Call to stakeholder regarding relevant person consultation.
2636	Email	31/07/2023	OUTGOING EMAIL: Follow-up email regarding telephone call attempting to confirm interest as a relevant person and in consultation regarding Otway project. Included attached information documents.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**101**
Name of Organisation	Wellington Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 101 - Consultation Summary

Id	Event Type	Start Date	Summary
129	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
130	Email	27/02/2023	OUTGOING EMAIL: to stakeholder with information regarding the commencement of preparation of an EP to undertake an exploration drilling with project information documents and personalised letter.
494	Email	27/02/2023	INCOMING EMAIL: from stakeholder with automatic reply to 'Proposed Otway Exploration Drilling Program'
939	Email	13/04/2023	OUTGOING EMAIL: to stakeholder with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
4190	Email	13/04/2023	INCOMING EMAIL: from stakeholder with automatic reply to Community Information Sessions
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4191	Email	19/05/2023	INCOMING EMAIL: from stakeholder with auto reply re ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4192	Email	8/06/2023	INCOMING EMAIL: from stakeholder with auto reply to project update ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
4193	Email	27/07/2023	INCOMING EMAIL: from stakeholder with auto reply re notificationConocoPhillips Australia Otway Exploration Drilling Program
2645	Telephone call	31/07/2023	OUTGOING TELEPHONE CALL: Call regarding ongoing consultation. Stakeholder advised they would like to opt-out of relevant person consultation. Committed to sending follow-up confirmation email.
2644	Email	31/07/2023	OUTGOING EMAIL: to stakeholder with follow up email regarding telephone call to confirm relevant person is opting out of consultation.
2894	Email	31/07/2023	OUTGOING EMAIL: to relevant stakeholder containing a request to opt out of consultation required.
2759	Email	31/07/2023	INCOMING EMAIL: Auto-reply for email sent to Stakeholder.
4194	Email	4/08/2023	INCOMING EMAIL: from stakeholder opting out of relevant person consultation
2741	Email	7/08/2023	OUTGOING EMAIL: to stakeholder confirming their opt-out of relevant persons consultation. Notified that stakeholder could opt-in again at any time for future consultation.

2893	Email	8/08/2023	INCOMING EMAIL: Stakeholder opting out from consultation.
2895	Email	8/08/2023	INCOMING EMAIL: Stakeholder opted out of consultation.

Organisation ID	**102**
Name of Organisation	Waratah Wynard Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 102 - Consultation Summary

Id	Event Type	Start Date	Summary
552	Email	6/03/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of EP to undertake exploration drilling with letter and information sheets attached.
553	Email	6/03/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling with letter and information sheets attached.
555	Email	6/03/2023	OUTGOING EMAIL: with notice of preparation of an EP to undertake an exploration drilling with letter and information sheets attached
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2646	Telephone call	31/07/2023	OUTGOING CALL: No answer. Left Message
2766	Telephone call	7/08/2023	OUTGOING CALL: Call to stakeholder to reach appropriate representative but advised was unavailable. Left message advising purpose of call and to seek interest on consultation and left number.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**103**
Name of Organisation	City of Casey
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 103 - Consultation Summary

Id	Event Type	Start Date	Summary
123	Email	27/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake an exploration drilling. Included project information documents and personalised letter.
4197	Email	27/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling with letter and information sheets attached
491	Email	27/02/2023	INCOMING EMAIL: auto reply to notice of ConocoPhillips Australia Otway Exploration Drilling Program
943	Email	13/04/2023	OUTGOING EMAIL: to stakeholder with information about Community Information Sessions
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2647	Telephone call	31/07/2023	OUTGOING CALL: No answer. Left message.
2768	Telephone call	7/08/2023	OUTGOING CALL: To organisation to discuss consultation.
2769	Email	7/08/2023	OUTGOING EMAIL: to stakeholder with follow up regarding earlier telephone call. Receptionist requested this email be re-sent so they could pass it onto the proper representative for this stakeholder. Included in the email is general consultation information as well as attached documents for the drilling program.
2892	Email	7/08/2023	INCOMING EMAIL: Auto-reply confirming receipt of sent email from stakeholder
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3414	Email	24/08/2023	INCOMING EMAIL: Auto reply
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3321	Email	31/08/2023	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**104**
Name of Organisation	Shoalhaven City Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 104 - Consultation Summary

Id	Event Type	Start Date	Summary
149	Email	27/02/2023	OUTGOING EMAIL: to relevant person with notice of preparation of an EP to undertake an exploration drilling. Included project information documents and personalised letter.
150	Email	27/02/2023	OUTGOING EMAIL: to relevant person with notice of preparation of an EP to undertake an exploration drilling. Included project information documents and personalised letter.
502	Email	27/02/2023	INCOMING EMAIL: Automated reply to 'Proposed Otway Exploration Drilling Program'
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4200	Email	8/06/2023	INCOMING EMAIL: from relevant person with auto reply confirming receipt of email
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
4201	Email	27/07/2023	INCOMING EMAIL: from relevant person with auto reply confirming receipt of email
2649	Telephone call	31/07/2023	OUTGOING CALL: To organisation to discuss consultation.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4202	Email	24/08/2023	INCOMING EMAIL: from relevant person with auto reply confirming receipt of email
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3327	Email	31/08/2023	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**105**
Name of Organisation	Bega Valley Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 105 - Consultation Summary

Id	Event Type	Start Date	Summary
145	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an EP to undertake an exploration drilling program. Included project information documents and personalised letter.
146	Email	27/02/2023	OUTGOING EMAIL: to relevant person information regarding the commencement of preparation of an EP to undertake an exploration drilling. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2651	Telephone call	31/07/2023	OUTGOING CALL: To organisation to discuss consultation.
2653	Telephone call	31/07/2023	OUTGOING CALL: To individual to discuss consultation.
2654	Email	31/07/2023	OUTGOING EMAIL: to relevant person with follow up to telephone call sending stakeholder links to consultation hub.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3325	Email	31/08/2023	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4857	Email	17/11/2023	Relevant Person has unsubscribed from receiving email campaigns after receiving notice of public comment period.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**106**
Name of Organisation	Wattle Range Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 106 - Consultation Summary

Id	Event Type	Start Date	Summary
140	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an EP to undertake an exploration drilling program. Included project information documents and personalised letter.
141	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an EP to undertake an exploration drilling program. Included project information documents and personalised letter.
497	Email	27/02/2023	INCOMING EMAIL: Automatic reply to 'Proposed Otway Exploration Drilling Program'
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2569	Email	11/05/2023	INCOMING EMAIL: from relevant person with automated reply, email to be forwarded to relevant council officer.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4204	Email	8/06/2023	INCOMING EMAIL: from relevant person with automated reply
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
4205	Email	27/07/2023	INCOMING EMAIL: from relevant person with automated reply Exploration Drilling Program
2703	Telephone call	1/08/2023	OUTGOING CALL: To organisation to discuss consultation.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4206	Email	24/08/2023	INCOMING EMAIL: from relevant person with automated reply
3418	Email	24/08/2023	INCOMING EMAIL: Auto reply acknowledging receipt of email
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3319	Email	31/08/2023	INCOMING EMAIL: Organisation auto reply - received email.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**107**
Name of Organisation	Eurobodalla Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 107 - Consultation Summary

Id	Event Type	Start Date	Summary
147	Email	27/02/2023	OUTGOING EMAIL: to relevant person information regarding the commencement of preparation of an EP to undertake an exploration drilling program. Included project information documents and personalised letter.
148	Email	27/02/2023	OUTGOING EMAIL: to relevant person information regarding the commencement of preparation of an EP to undertake an exploration drilling. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2712	Telephone call	1/08/2023	OUTGOING CALL: To organisation to discuss consultation.
2711	Email	1/08/2023	OUTGOING EMAIL: to stakeholder with follow up to telephone call, sent consultation opt-out confirmation to stakeholders preferred email.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3320	Email	31/08/2023	INCOMING EMAIL: Auto reply
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**108**
Name of Organisation	District Council of Robe
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 108 - Consultation Summary

Id	Event Type	Start Date	Summary
139	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an EP to undertake an exploration drilling program. Included project information documents and personalised letter.
138	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an EP to undertake an exploration drilling program. Included project information documents and personalised letter.
498	Email	27/02/2023	INCOMING EMAIL: from relevant person with Automatic reply to Proposed Otway Exploration Drilling Program.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2714	Email	1/08/2023	OUTGOING EMAIL: Follow up email to preferred address and stakeholder after call with organisations receptionist. Sent information regarding Otway Exploration Drilling Program including attachments.
2758	Email	1/08/2023	INCOMING EMAIL: Auto-reply, email has been received.
2715	Telephone call	1/08/2023	OUTGOING CALL: To organistion to discuss consultation.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**109**
Name of Organisation	Glenelg Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 109 - 2.Summary

Id	Event Type	Start Date	Summary
809	Email	9/02/2023	OUTGOING EMAIL: NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
783	Email	9/02/2023	OUTGOING EMAIL: NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
1528	Telephone call	20/02/2023	OUTGOING CALL: No answer. Left message.
1529	Telephone call	20/02/2023	OUTGOING CALL: No answer. Left message.
1530	Telephone call	20/02/2023	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
4511	Email	20/02/2023	OUTGOING EMAIL: NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
63	Telephone call	21/02/2023	INCOMING CALL: Missed call. Message left.
1564	Telephone call	21/02/2023	OUTGOING CALL: Call to stakeholder to follow up on email sent, stakeholder was unable to confirm. ConocoPhillips Australia committed to resending to a new email address.
51	Email	21/02/2023	OUTGOING EMAIL: NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
65	Email	21/02/2023	INCOMING EMAIL: Individual confirming to received email about 'Proposed Otway Exploration Drilling Program'
532	Email	27/02/2023	INCOMING EMAIL: Individual asking for a response since talking to one of the staff a week ago about arranging a meeting.
558	Email	6/03/2023	OUTGOING EMAIL: Team has begun the process of organising a meeting.
4482	Email	7/03/2023	OUTGOING EMAIL: Team suggest a day and date for meeting
570	Email	7/03/2023	INCOMING EMAIL: Individual giving available time to meet with relevant stakeholders.
4484	Email	7/03/2023	INCOMING EMAIL: Individual agreed to meeting, will send invite but requires other attendees emails to be added to MS Teams meeting.
4496	Email	7/03/2023	OUTGOING EMAL: Other attendee's name given.
4499	Email	7/03/2023	INCOMING EMAIL: Individual responding that MS Teams meeting will be fine, Teams link given.
571	Email	7/03/2023	OUTGOING EMAIL: Team is happy to join via MS Teams meeting.
4498	Email	7/03/2023	OUTGOING EMAIL: Gave option of face-to-face meeting or MS teams meeting.
2575	Meeting - Virtual	24/03/2023	Briefing regarding otway exploration drilling program and Environmental Plan development.
937	Email	13/04/2023	OUTGOING EMAIL: Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4478	Email	19/05/2023	INCOMING EMAIL: Individual away from office till 22nd of May
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.

3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3372	Email	14/09/2023	OUTGOING EMAIL: Email sent with formal letter in response to objections and claims raised.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**110**
Name of Organisation	Surf Coast Shire Council
Function, Interest, Activities	Local Council located within planning area. The council opposes all new oil and gas exploration and development and seismic testing in the Otway Basin.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 110 - Consultation Summary

Id	Event Type	Start Date	Summary
110	Email	23/02/2023	OUTGOING EMAIL - with stakeholder re approval to share provided fisheries data.
117	Email	27/02/2023	OUTGOING EMAIL: Relevant Person information (attached) regarding preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin.
118	Email	27/02/2023	OUTGOING EMAIL with attachments to stakeholder re proposed drilling program in the Otway Basin.
488	Email	27/02/2023	INCOMING EMAIL from stakeholder to confirm receipt of notice.
487	Email	28/02/2023	Automatic response to NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
649	Email	16/03/2023	INCOMING EMAIL: from stakeholder outlining in some detail their concerns and interests across a range of issues.
650	Email	20/03/2023	OUTGOING EMAIL: to stakeholder responding to their issues and concerns and outlining an understanding of their preferred way forward for consultation.
677	Email	21/03/2023	INCOMING EMAIL from stakeholder noting the consultation program and expressing thanks.
962	Email	13/04/2023	OUTGOING EMAIL: Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1799	Email	13/04/2023	INCOMING EMAIL - Stakeholder auto-reply email confirmation
966	Email	13/04/2023	OUTGOING EMAIL: Email with attachments re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1802	Email	17/04/2023	INCOMING EMAIL - Inability to attend meeting.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2729	Email	3/08/2023	OUTGOING EMAIL - RESPONSE TO OBJECTIONS AND CLAIMS: ConocoPhillips Australia Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3317	Email	31/08/2023	INCOMING EMAILS: Auto reply
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**111**
Name of Organisation	Australian Marine Conservation Society
Function, Interest, Activities	The Australian Marine Conservation Society (AMCS) is an Australian environmental not-for-profit organisation, founded in 1965. It works on protecting the health and vitality of Australia's coasts and oceans. The Australian Marine Conservation Society is Australia's only national charity dedicated exclusively to protecting ocean wildlife and their homes. The Australian Marine Conservation Society is an independent charity.
Identification Method	Email to project email
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	Permission to publish information provided
Relevant person information	Opted to be consulted as a relevant person

Organisation ID 111 - 2.Summary

Id	Event Type	Start Date	Summary
4101	Email	3/03/2023	INCOMING EMAIL: Stakeholder registering interest
547	Email	3/03/2023	OUTGOING EMAIL: Acknowledgment and response to stakeholders interest. Request for confirmation of details and development of relevant persons information (incl attachments)
613	Email	13/03/2023	OUTGOING EMAIL: to stakeholder with initial correspondence about the proposed Otway Offshore Exploration Drilling Program (incl attachments)
876	Email	6/04/2023	INCOMING EMAIL: Stakeholder enquiring regarding the use of seismic testing in the Otway Basin.
4102	Email	6/04/2023	OUTGOING EMAIL: to stakeholder regarding their enquiry of the use of seismic testing in Otway Basin (incl attachment)
4108	Email	11/04/2023	INCOMING EMAIL: Stakeholder acknowledgment of seismic survey information and details for consultation.
881	Email	12/04/2023	OUTGOING EMAIL: Acknowledgment and follow up for Stakeholder consultation availability and details.
882	Email	13/04/2023	INCOMING EMAIL: Stakeholder requesting an online meeting.
4109	Email	13/04/2023	OUTGOING MAIL: to stakeholder acknowledgement and further discussion of consultation time
4112	Email	13/04/2023	INCOMING EMAIL: from stakeholder further discussion of consultation times
883	Email	13/04/2023	OUTGOING EMAIL: to stakeholder Acknowledgment and response further confirmation of consultation time.
884	Email	13/04/2023	OUTGOING EMAIL: to stakeholder follow up confirming consultation date.
4115	Email	13/04/2023	OUTGOING EMAIL: to stakeholder re follow up confirming consultation date
1193	Email	13/04/2023	INCOMING EMAIL: Stakeholder confirming online consultation preferences.
4116	Email	13/04/2023	OUTGOING EMAIL: to stakeholder follow up confirming consultation date
4118	Email	14/04/2023	INCOMING EMAIL: from stakeholder regarding meeting time for consultation
4119	Email	14/04/2023	OUTGOING EMAIL: to stakeholder regarding meeting time for consultation
4120	Email	14/04/2023	INCOMING EMAIL: from stakeholder re setting up zoom link for consultation
1007	Email	18/04/2023	OUTGOING EMAIL: Contacting stakeholder in an attempt to reschedule consultation due to availability from ConocoPhillips members.
4122	Email	18/04/2023	INCOMING EMAIL: stakeholder automated out of office reply
4123	Email	18/04/2023	INCOMING EMAIL: from stakeholder confirming re-arranged consultation and requesting zoom link
1010	Email	18/04/2023	OUTGOING EMAIL: Responded to stakeholders query regarding participants and included email links.
4124	Email	27/04/2023	INCOMING EMAIL: from stakeholder requesting any amended docs/background info in preparation for consultation meeting
4126	Email	27/04/2023	OUTGOING EMAIL: to stakeholder responding to updated document query in preparation for consultation meeting
4125	Email	4/05/2023	INCOMING EMAIL: from stakeholder re RSVP's for consultation meeting
1090	Email	4/05/2023	OUTGOING EMAIL: Responded to stakeholders questions.
1655	Meeting - Virtual	4/05/2023	BRIEFING re the Otway Exploration Drilling Program and the proposed Seismic Survey provided jointly by ConocoPhillips Australia and Klarite via Zoom.
1102	Email	4/05/2023	INCOMING EMAIL: Stakeholder confirming consultation information.
4129	Email	9/05/2023	OUTGOING EMAIL: to stakeholder re requesting consultation meeting video recording and offer for follow up consultation meeting
1202	Email	11/05/2023	INCOMING EMAIL: Stakeholder forwarding EP information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1992	Email	11/05/2023	INCOMING EMAIL: Follow up from stakeholders consultation, further questions and seeking further information.
1174	Email	12/05/2023	OUTGOING EMAIL: to stakeholder re consultation recording and requesting recording access permission
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4132	Email	12/07/2023	OUTGOING EMAIL: to stakeholder with response to follow up questions (incl attachment)
2351	SMS	12/07/2023	Outgoing SMS to request call back (see screen shot attached).
2450	Email	14/07/2023	INCOMING EMAIL: Stakeholders response to consultation follow up answer email.
2601	Email	25/07/2023	OUTGOING EMAIL: to stakeholder to provide written response to Objections and Claims (incl attachments)
4133	Email	26/07/2023	INCOMING EMAIL: from stakeholder requesting EMBA map information and request for EP submission date
2610	Email	26/07/2023	OUTGOING EMAIL: to stakeholders request for more information re EMBA and EP submission

2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
4134	Email	23/08/2023	INCOMING EMAIL: from stakeholder re further information on public consultation
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4135	Email	24/08/2023	INCOMING EMAIL: from stakeholder requesting pdf EP
4136	Email	25/08/2023	OUTGOING EMAIL: to stakeholder re request for pdf version of draft EP
3078	Email	25/08/2023	INCOMING EMAIL: from stakeholder regarding remaining EP chapters for consultation
3079	Email	28/08/2023	OUTGOING EMAIL: to stakeholder with response to individual regarding remaining EP Chapters.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3291	Email	1/09/2023	INCOMING EMAIL: from stakeholder enquiring why chapter 3 of EP is missing.
3183	Email	4/09/2023	OUTGOING EMAIL: Enquiry about 'missing' chapter 3 in the draft EP chapters available for consultation.
3785	Email	22/09/2023	INCOMING EMAIL: from stakeholder with documents detailing request for more information and concerns
3858	Email	2/10/2023	OUTGOING EMAIL: To stakeholder with apology for delayed response
4138	Email	2/10/2023	INCOMING EMAIL: from stakeholder with follow up for response on feedback of draft EP
4139	Email	2/10/2023	OUTGOING EMAIL: to stakeholder regarding their objections and claims
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4412	Email	10/10/2023	INCOMING EMAIL: Individual has question about consultation being paused for EP submission. Individual has concerns with relevant stakeholders not being consulted with adequate time.
4407	Email	12/10/2023	INCOMING EMAIL: Individual requesting meeting to discuss community concerns identified in community session e.g. staggered release of chapters how project impacts cumulative instead of various chapters.
4073	Email	13/10/2023	OUTGOING MEETING: to stakeholder following up suggesting meeting regarding changes in EP details
4405	Email	13/10/2023	INCOMING EMAIL: Individual away, will respond on Monday.
4411	Email	17/10/2023	INCOMING EMAIL: Individual requesting adding a colleague to the call for tomorrow.
4127	Email	18/10/2023	INCOMING EMAIL: to request additional stakeholder team member is invited to Teams Meeting this morning.
4175	Meeting - Virtual	18/10/2023	VIRTUAL MEETING in response to request.
4128	Email	18/10/2023	INCOMING EMAIL from stakeholder accepting the invitation to meet with ConocoPhillips Australia
4153	Email	19/10/2023	INCOMING EMAIL from including attached Word document re: written questions not addressed in consultation meeting.
4470	Social Pinpoint Registered for Updates	20/10/2023	SOCIAL PINPOINT - Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
4173	Email	20/10/2023	INCOMING EMAIL: to follow up on previous request the day prior for a copy of recording from meeting on Wednesday Oct 18, so that a further follow up question based on meeting discussion can be submitted.
4172	Email	20/10/2023	OUTGOING EMAIL sent on 20/10/23 to acknowledge receipt of incoming email on 19/10/23 and to advise that the video recording of meeting held on 18/10/23 has been uploaded to Sharefile.
4402	Email	20/10/2023	INCOMING EMAIL: Individual on leave, will respond to email on Monday
4270	Email	25/10/2023	OUTGOING email sent to relevant person to provide response to objections and claims.
4513	Email	26/10/2023	INCOMING EMAIL: from stakeholder requesting response to questions from 18.10.23 with questions re-attached
4358	Email	26/10/2023	INCOMING EMAIL: from relevant person seeking information about the consultation process.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4507	Email	31/10/2023	INCOMING EMAIL: Relevant person sought clarification on completeness check submission timeframe and response to questions previously submitted.
4660	Email	9/11/2023	INCOMING EMAIL: Out of Office message received from stakeholder re outgoing email about RESPONSE TO OBJECTIONS AND CLAIMS: ConocoPhillips Australia Otway Exploration Drilling Program
4658	Email	9/11/2023	OUTGOING EMAIL: Email sent to stakeholder with formal letter in response to objections and claims raised.
4661	Email	13/11/2023	INCOMING EMAIL: Sent from stakeholder to team enquiring as to the status of the draft EP and completeness check with the regulator.
4823	Email	14/11/2023	OUTGOING email response to stakeholder enquiry about submission of EP for completeness check.

4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4935	Public Comment	22/11/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4939	Public Comment	26/11/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4956	Public Comment	17/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4904	Email	28/12/2023	OUTGOING EMAIL: Sent to stakeholder requesting a new copy of a pdf public comment submission that was made to the regulator that was currently inaccessible for the team.
4905	Email	29/12/2023	INCOMING EMAIL: sent from stakeholder responding to previous email request to resend a public comment pdf submission. Stakeholder attached requested pdf.
4906	Email	29/12/2023	OUTGOING EMAIL: sent to stakeholder thanking them for the quick response to previous emails. Confirmed that we have now received their public comment submission
5121	Email	22/02/2024	OUTGOING EMAIL: Provided response to public comment submission.

Organisation Id	**112**
Name of Organisation	Cardinia Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 112 - Consultation Summary

Id	Event Type	Start Date	Summary
124	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
566	Email	6/03/2023	OUTGOING EMAIL: to stakeholder with notice of preparation for EP for exploration drilling (attached letter and enclosures)
951	Email	13/04/2023	OUTGOING EMAIL: to stakeholder with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2730	Telephone call	3/08/2023	OUTGOING CALL: To organisation to discuss consultation.
2732	Email	3/08/2023	OUTGOING EMAIL: to stakeholder Follow up regarding interest in consultation for ConocoPhillips Otway Exploration Drilling Program.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4143	Email	29/08/2023	OUTGOING EMAIL: to stakeholder with project update for EP (incl attachment)
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**113**
Name of Organisation	Moyne Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 113 - Consultation Summary

Id	Event Type	Start Date	Summary
798	Email	9/02/2023	OUTGOING EMAIL: sent to stakeholder notifying that ConocoPhillips Australia has commenced preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Attached two information documents and a personalised letter with more information.
1526	Telephone call	20/02/2023	OUTGOING CALL: Individual not able to take call at time called.
1527	Telephone call	20/02/2023	OUTGOING CALL: No answer. Left message.
1538	Telephone call	20/02/2023	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
62	Telephone call	21/02/2023	INCOMING CALL: Missed call. Message left.
89	Telephone call	23/02/2023	INCOMING CALL Received call from individual who advised he hadn't received information pack. Confirmed details, which were correct and agreed to resend.
1591	Telephone call	23/02/2023	OUTGOING EMAIL: Email resent directly to stakeholder (CC'd on previous).
90	Email	23/02/2023	OUTGOING EMAIL: sent to stakeholder notifying that ConocoPhillips Australia has commenced preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Attached two information documents and a personalised letter with more information.
643	Email	14/03/2023	OUTGOING EMAIL: sent to stakeholder requesting in person meeting to discuss otway exploration drilling program as team will be in the area in the coming weeks.
4106	Email	12/04/2023	INCOMING EMAIL: stakeholder inquired as to a previous email to another stakeholder within the same organisation. New stakeholder requested discussion.
886	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder response to community session attendance and confirmation of further consultation details. Acknowledged previous suggestions regarding consultation.
4209	Email	13/04/2023	INCOMING EMAIL: stakeholder sent information regarding possibility of gas companies presenting on their projects at the same meeting. Stakeholder confirmed they sent a calendar placeholder event and assured they will follow up.
4207	Email	14/04/2023	INCOMING EMAIL: stakeholder sent email clarifying that they cannot help promote the sessions. Stakeholder suggested contacting the community facebook page to see if they would host the information.
1071	Social Pinpoint Comment	18/04/2023	SOCIAL PINPOINT query about consultation in local area.
1808	Email	18/04/2023	INCOMING EMAIL: sent from stakeholder query concerned over information session locations.
1091	Community Session	19/04/2023	Collaborative Community Information Session in Peterborough at Peterborough House, Wednesday 19 April 12-2pm
2440	Email	19/04/2023	INCOMING EMAIL: Stakeholder asking why Port Fairy is not included in community consultation given its location to the northern boundary of the VIC/P79 Title. Asked if sessions could be ran here.
2442	Email	19/04/2023	OUTGOING EMAIL: teams response to previous query regarding community consultation. Confirmed community sessions will be happening in Port Fairy.
2444	Email	19/04/2023	INCOMING EMAIL: stakeholder confirmed team response, said they attended the Peterborough session and presenters also felt an extra session in Port Fairy was possible. Noted they would be happy to assist with venue suggestions once dates are organised.
4203	Email	20/04/2023	INCOMING EMAIL: sent from stakeholder updating meeting day from previously agreed due to unforeseen circumstances for the stakeholder.
1021	Email	25/04/2023	OUTGOING EMAIL: sent to stakeholder attempting to organise a community session, requiring assistance with venue options as referred in correspondence. Requested discussion regarding their suggestions.

2472	Email	26/04/2023	INCOMING EMAIL: stakeholder responded to request for venue recommendations with recommendation to delay session till the next week to avoid a popular local event. Changing the date may also free up available venues. Said they were available by phone if requiring a conversation.
2452	Email	26/04/2023	INCOMING EMAIL: stakeholder requested team member's phone number after not being able to find it within previous correspondence chain.
4176	Email	26/04/2023	OUTGOING EMAIL: sent stakeholder a copy of print advertisement to stakeholder's communications team for agreed promotion throughout their communication channels
1027	Email	26/04/2023	OUTGOING EMAIL: sent stakeholder thanks for advice regarding venue recommendations and confirmed that since it is the first of many community sessions it will proceed. Attached a copy of print and radio advertisements and advertising schedule for further information.
4146	Email	26/04/2023	OUTGOING EMAIL: sent to stakeholder providing contact details regarding previously requested phone number.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
3979	Email	17/05/2023	INCOMING EMAIL: Received an Invitation from stakeholder for ConocoPhillips to be part of a joint briefing with other organisation's that are conducting seismic program proposals also within the Otway Basin. Stakeholder looked to confirm attendance and preferred time for a 20 minute briefing slot to the council group.
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2469	Email	19/05/2023	INCOMING EMAIL: Received from stakeholder attempting to confirm if further meeting invitations from stakeholder are required to be sent to other external organisations or if it has been done internally from our team regarding upcoming meeting.
1240	Email	21/05/2023	OUTGOING EMAIL: sent to stakeholder replying to meeting invitation noting that it will be forwarded onto the team to confirm attendees.
2465	Email	23/05/2023	INCOMING EMAIL: sent from stakeholder regarding presentation/meeting format and the inclusion our team. Stakeholder also responded to enquiry about first nations stating the best course of action is to seek formal contact with respective CEO's.
2463	Email	23/05/2023	OUTGOING EMAIL: Sent to stakeholder requesting equal timeslot for presentation and clarification about attendees.
1351	Email	25/05/2023	OUTGOING EMAIL: sent to stakeholder regarding file note following up from telephone conversation about port fairy community information session, seeking confirmation that record is correct without misrepresentation.
3960	Email	25/05/2023	INCOMING EMAIL: received from stakeholder acknowledging the recorded notes from the telephone conversation sent in previous correspondence are accurate.
2460	Email	30/05/2023	INCOMING EMAIL: Email from stakeholder confirming presentation timeslot.
1365	Email	30/05/2023	OUTGOING EMAIL: sent to stakeholder confirming presentation timeslot as discussed via telephone conversation. Confirmed that the presentation will only be regarding the Otway Exploration Drilling Program and not any seismic survey's by other organisations.
2457	Email	30/05/2023	INCOMING EMAIL: Stakeholder confirmed timeslot availability for presentation to Council.
1367	Email	30/05/2023	OUTGOING EMAIL: sent to stakeholder containing team response acknowledging the need to differentiate projects as highlighted by the stakeholder.
1633	Community Session	30/05/2023	Collaborative information session held in Port Fairy presenting information on Otway Exploration Drilling Program and Regia MSS.
4497	Email	30/05/2023	OUTGOING EMAIL: sent to stakeholder advising of upcoming community information sessions. Then attempted to confirm best venue for lunch time session.

2462	Email	2/06/2023	INCOMING EMAIL: Email response to enquiry about ConocoPhillips' presenters at the Moyne Shire Council presentations 20 June.
1440	Email	2/06/2023	OUTGOING EMAIL: sent to stakeholder clarifying who one of the teams presenters are regarding our meetings.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1650	Campaign Email	12/06/2023	OUTGOING EMAIL: Project Update - June 2024 PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4505	Email	13/06/2023	OUTGOING EMAIL: sent to stakeholder sharing ppt and sharefiles.
4514	Email	13/06/2023	INCOMING EMAIL: Email from stakeholder to advise that they can't access Sharefile.
4187	Email	14/06/2023	OUTGOING EMAIL: sent to stakeholder confirming presenters for the meeting and their receival of meeting invitation. Also reconfirmed the team's allotted timeslot via zoom as per previous correspondence.
3949	Meeting - Virtual	14/06/2023	MEETING VIRTUAL for briefing to organisation.
4188	Email	14/06/2023	INCOMING EMAIL: received from stakeholder regarding meeting zoom link for otway exploration program presentation to relevant persons with instructions as to how to enter meeting.
1704	Email	16/06/2023	OUTGOING EMAIL: sent to stakeholder regarding information for upcoming community information session. Attached a print advertisement for the upcoming session and informed stakeholder of teams method of advertisement.
2451	Presentation	20/06/2023	Presentation as part of a virtual workshop about gas exploration in the Otway Basin.
4495	Email	20/06/2023	INCOMING EMAIL: sent from stakeholder thanking team for the presentation to the councillors and apologised for being late to the meeting. Stakeholder commented if there were any further questions by the councillors they would send them through email.
4501	Email	20/06/2023	OUTGOING EMAIL: sent to stakeholder thanking them and stating that the team would be happy to address further questions or provide another briefing if necessary
2335	Email	10/07/2023	OUTGOING EMAIL: sent to stakeholder following up from original briefing with invitation for another briefing based on the release of upcoming environmental plan chapters. Noted want to ensure that stakeholder has sufficient information as a relevant person to lodge any objections, claims, or concerns regarding potential impact to functions, interests and activities of stakeholder.
4195	Email	10/07/2023	INCOMING EMAIL: Received from stakeholder an automated reply noting current leave and return to office date.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2789	Telephone call	8/08/2023	OUTGOING TELEPHONE CALL to check if organisation has further questions or needs more information.
2784	Email	8/08/2023	OUTGOING EMAIL: sent to stakeholder regarding confirmation of consultation process undertaken so far and confirming stakeholder is satisfied with the accuracy of the teams record of events with the stakeholder.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4590	Email	2/11/2023	OUTGOING EMAIL: Email sent to relevant organisation to provide roles and titles of presenters at Council presentation 20 June.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**114**
Name of Organisation	City of Mount Gambier
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 114 - Consultation Summary

Id	Event Type	Start Date	Summary
501	Email	27/02/2023	INCOMING EMAIL: stakeholder sent automated reply confirming previous email has been received.
143	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
144	Email	27/02/2023	OUTGOING EMAIL: to relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
4198	Email	8/06/2023	INCOMING EMAIL: stakeholder sent automated email confirming receival of previously sent campaign email
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
4199	Email	27/07/2023	INCOMING EMAIL: stakeholder sent automated email confirming receival of previously sent campaign email
2749	Telephone call	7/08/2023	Outgoing call couldn't reach relevant person, left message and promised to send email with relevant information
2748	Email	7/08/2023	OUTGOING EMAIL: sent to stakeholder as a follow-up email after telephone conversation regarding consultation and organising a meeting as a relevant person. Also offered option to opt-out of relevant person process if necessary. Attached information documents regarding the drilling program as well as previous letters of contact.
2751	Email	7/08/2023	INCOMING EMAIL: sent from stakeholder automated reply confirming receival of email sent to stakeholder
3008	Email	15/08/2023	INCOMING EMAIL: sent from stakeholder confirming no objection to the previously presented information and acknowledged no need for formal submission. Stakeholder confirmed still wanting to remain on relevant person opt-in list for the sake of receiving information updates moving forward.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program

4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4924	Public Comment	7/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4957	Public Comment	14/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.

Organisation Id	**115**
Name of Organisation	City of Greater Geelong
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 115 - Consultation Summary

Id	Event Type	Start Date	Summary
4211	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
120	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
489	Email	27/02/2023	INCOMING EMAIL: stakeholder sent automated reply confirming previous correspondence had been received.
490	Email	27/02/2023	INCOMING EMAIL: stakeholder sent automated reply confirming previous correspondence had been received.
968	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder containing information about upcoming Community Information Sessions regarding Otway Exploration Program.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2756	Telephone call	7/08/2023	Outgoing call couldn't reach relevant person, was told to send a new email to the organisation with relevant information.
2757	Email	7/08/2023	OUTGOING EMAIL: sent to stakeholder following up regarding otway exploration drilling program consultation and the telephone conversation had earlier. Provided attention to appropriate representative as requested and attached relevant documents for consideration. Seeking interest as a relevant person.
2888	Email	7/08/2023	INCOMING EMAIL: Autoreply email sent from stakeholder automated reply confirming receival of prior email.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**116**
Name of Organisation	Borough of Queenscliffe
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 116 - Consultation Summary

Id	Event Type	Start Date	Summary
121	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
4218	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
4220	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder containing information on upcoming community information sessions regarding the otway exploration drilling program. Provided dates, times, and location details.
1800	Email	13/04/2023	INCOMING EMAIL: sent from stakeholder automatic reply confirming previous email correspondence was received.
970	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder containing information on upcoming community information sessions regarding the otway exxploration drilling program. Provided dates, times, and location details.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2760	Telephone call	7/08/2023	Outgoing call couldn't reach relevant person. Left a message and the organisation requested they were the ones to call the team back.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**117**
Name of Organisation	Bass Coast Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Regulation 11A (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 117 - Consultation Summary

Id	Event Type	Start Date	Summary
125	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
126	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
492	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder automatic reply confirming receival of previously sent email correspondence.
974	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community Information sessions. Included date, time, and place information for each session.
4237	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community Information sessions. Included date, time, and place information for each session.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2762	Telephone call	7/08/2023	Outgoing call couldn't reach relevant person. Organisation requested another email be sent with relevant information.
2764	Email	7/08/2023	OUTGOING EMAIL: sent to stakeholder as follow up email regarding previous telephone conversation, sent new email containing relevant information as well as attached documents regarding drilling program project updates and consultation as well as the original letter sent to stakeholder.
2891	Email	7/08/2023	INCOMING EMAIL: sent from stakeholder automatic reply confirming receival of previously sent email correspondence.
2794	Email	8/08/2023	INCOMING EMAIL: sent from stakeholder confirming that they wish to opt-out regarding the Otway Exploration Drilling Program information and consultation process in response to previously sent correspondence with relevant information regarding the environmental plan process.
2793	Email	8/08/2023	OUTGOING EMAIL: sent to stakeholder responding to stakeholders confirmation of opt-out from information and consultation regarding Otway Exploration Drilling Program. Confirmed that stakeholder may opt-in again at any time if they wish to receive any further information or resume consultation.

Organisation Id	**119**
Name of Organisation	Sustainable Shark Fishing Inc.
Function, Interest, Activities	Commercial fisher within the Southern Bluefin Tuna Fishery
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 119 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4252	Email	8/02/2023	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3051	Email	24/08/2023	INCOMING EMAIL: stakeholder responded to project update and requested someone contact him regarding his representation of trawl and shark fishery.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**120**
Name of Organisation	Indigo Communications Cable (SULO)
Function, Interest, Activities	Operator of the ‘superloop’ subsea telecommunications cable.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 120 - Consultation Summary

Id	Event Type	Start Date	Summary
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3304	Email	31/08/2023	Incoming email from relevant stakeholder containing an automatic reply
3312	Email	31/08/2023	INCOMING EMAIL Auto reply
3088	Email	28/08/2023	OUTGOING EMAIL: Team: Reaching out for a response to last email, gave project update.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2781	Email	7/08/2023	OUTGOING EMAIL - Email to relevant stakeholder about proposed Otway exploration drilling program. Conversation between other organisation is shared to find the relevant person is correctly in correspondence.
2780	Email	2/08/2023	INCOMING EMAIL from stakeholder with query about works location.
2777	Email	2/08/2023	OUTGOING EMAIL - acknowledging relevant stakeholder details have been given.
2775	Email	2/08/2023	INCOMING EMAIL from stakeholder re best contact after informal conversations
2774	Email	1/08/2023	OUTGOING EMAIL to relevant stakeholder regarding a team given response requested by stakeholder.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2773	Email	27/07/2023	INCOMING EMAIL from relevant stakeholder again sent another email requesting more information.
2772	Email	24/07/2023	INCOMING EMAIL from relevant stakeholder asking for more information.
2570	Email	24/07/2023	OUTGOING EMAIL: email to relevant stakeholder to check they are receiving updates about the 'Proposed Otway Exploration Drilling Program'.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1724	Email	9/02/2023	INCOMING EMAIL: Auto reply from company advising email received for Proposed Otway Exploration Drilling Program sent to company.
1426	Email	9/02/2023	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
104	Email	25/11/2022	INCOMING EMAIL: from relevant stakeholder stating the request email has been received email, staff to review email sent.

Organisation Id	**123**
Name of Organisation	Yumbah Aquaculture Narrawong
Function, Interest, Activities	Aquaculture facility located on the Victorian Coastline
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 123 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2776	Email	8/08/2023	OUTGOING EMAIL: Team corresponding to new stakeholder with details of proposed drilling project. With letter and information sheets attached
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**125**
Name of Organisation	King Island Tourism Inc
Function, Interest, Activities	King Island Tourism Incorporated is a voluntary membership based organisation which was first established in the 1920's by tourism and business operators. They are able to assist business and holiday travellers by providing information on services, accommodation and events on the Island.
Identification Method	Referred by another stakeholder/ relevant person
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 125 - Consultation Summary

Id	Event Type	Start Date	Summary
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
2779	Email	8/08/2023	OUTGOING EMAIL: sent to stakeholder informing them of the otway exploration drilling program after being suggest for contact from another relevant person. Attached relevant information documents as well as a personalised letter with further information.

Organisation Id	**126**
Name of Organisation	Seafood Industry Australia (SIA)
Function, Interest, Activities	Seafood Industry Australia (SIA) is the national peak-body representing the Australian seafood industry as a whole.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 126 - Consultation Summary

Id	Event Type	Start Date	Summary
106	Email	25/11/2022	INCOMING EMAIL: from stakeholder with acknowledgement of email and wanting to work with us and attached service agreement
779	Email	8/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID 140 - 1.Details

Id	**140**
Name of Organisation	Greenpeace Australia Pacific Limited
Function, Interest, Activities	Registered Environmental charity.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 140 - Consultation Summary

Id	Event Type	Start Date	Summary
1773	Email	13/03/2023	INCOMING EMAIL: with auto-reply email confirmation
616	Email	13/03/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1772	Email	11/05/2023	INCOMING EMAIL: Stakeholder auto-reply email.
3878	Received Campaign Email	6/06/2023	Received Campaign email.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
3877	Received Campaign Email	8/06/2023	Received a campaign email.
3876	Received Campaign Email	16/06/2023	Received a campaign email.
3875	Received Campaign Email	19/06/2023	Received a campaign email.
3874	Received Campaign Email	22/06/2023	Received a campaign email.
3873	Received Campaign Email	23/06/2023	Received a campaign email.
3872	Received Campaign Email	29/06/2023	Received a campaign email.
3871	Received Campaign Email	30/06/2023	Received a campaign email
3870	Received Campaign Email	2/07/2023	Received a campaign email.
2807	Received Campaign Email	11/07/2023	Received a campaign email.
3869	Received Campaign Email	11/07/2023	Received a campaign email
3868	Received Campaign Email	19/07/2023	Received a campaign email.
3867	Received Campaign Email	21/07/2023	Received a campaign email.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2786	Email	27/07/2023	INCOMING EMAIL: with Auto-Reply
2785	Received Campaign Email	1/08/2023	Received a campaign email.
2782	Received Campaign Email	3/08/2023	Received a campaign email.
2896	Received Campaign Email	8/08/2023	Received a campaign email.
2901	Received Campaign Email	11/08/2023	Received a campaign email
2994	Received Campaign Email	14/08/2023	Received a campign email.
3010	Received Campaign Email	16/08/2023	Received a campaign email.
3012	Received Campaign Email	20/08/2023	Received a campaign email.
3018	Received Campaign Email	22/08/2023	Received a campaign email.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3405	Email	24/08/2023	INCOMING EMAIL: with Auto reply
3338	Received Campaign Email	31/08/2023	Received a campaign email
3294	Email	31/08/2023	INCOMING EMAIL: with Auto reply
3287	Received Campaign Email	6/09/2023	Received a campaign email.
3391	Received Campaign Email	14/09/2023	Received a campaign email.
3813	Received Campaign Email	20/09/2023	Received a campaign email.
3811	Received Campaign Email	22/09/2023	Received a campaign email.
3810	Received Campaign Email	24/09/2023	Received a campaign email.
3864	Received Campaign Email	27/09/2023	Campaign email
3865	Received Campaign Email	28/09/2023	Campaign email
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3866	Received Campaign Email	3/10/2023	Campaign email
3899	Received Campaign Email	4/10/2023	Campaign email
4002	Received Campaign Email	9/10/2023	Received a campaign email.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID 144 - 1.Details

Id	**144**
Name of Organisation	Clean Ocean Foundation
Function, Interest, Activities	Australian Charity whose aim is to reduce all forms of ocean pollution
Identification Method	Consultation Hub – Newsletter sign up
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 144 - 2.Summary

Id	Event Type	Start Date	Summary
1074	Social Pinpoint Registered for Updates	16/04/2023	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
1087	Community Session	17/04/2023	Community Information Session held at Warrnambool, Monday 17 April, 6-8pm. Collaborative Session held with Regia 3D MSS.
2437	Email	18/04/2023	INCOMING EMAIL - Stakeholder complimenting presentation.
4479	Email	18/04/2023	OUTGOING EMAIL: FW: [EXTERNAL]Consultation in Warrnambool, April 17th.
2434	Email	18/04/2023	OUTGOING EMAIL Response to stakeholder's positive comment on presentation.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1364	Community Session	29/05/2023	Community information session held at Warrnambool. Monday 29 May 6-8pm. Collaborative Session held with Regia 3D MSS.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1807	Email	26/06/2023	OUTGOING EMAIL following stakeholder comments on presentation.
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2816	Email	9/08/2023	OUTGOING EMAIL: to Relevant Person with attachments re ConocoPhillips Australia Otway Exploration Drilling Program and offer of a meeting.
2850	Email	10/08/2023	INCOMING EMAIL: sent from stakeholder notifying team of their registration regarding the 30-day consultation for submission.
2852	Email	11/08/2023	OUTGOING EMAIL to stakeholder encouraging the group to join consultation.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
4966	Public Comment	26/11/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
5119	Email	21/02/2024	OUTGOING EMAIL: Sent revised correspondence to individual.
5106	Email	21/02/2024	OUTGOING EMAIL: Provided response to public comment submission.
5112	Email	21/02/2024	OUTGOING EMAIL: Advised of administrative error in letter sent.
5118	Email	21/02/2024	INCOMING EMAIL: individual advised they would like corrected letter.
5120	Email	21/02/2024	OUTGOING EMAIL: Provided revised letter in response to public comment submission as requestd.

Organisation Id	**154**
Name of Organisation	Friends of the Earth Australia/ Melbourne
Identification Method	Desktop Research
Function, Interest, Activities	Registered charities which work across many areas related to protection and enhancement of the natural environment.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 154 - 2.Summary

Id	Event Type	Start Date	Summary
618	Email	13/03/2023	OUTGOING EMAIL: Sent initial correspondence about the proposed Otway Offshore Exploration Drilling Program
907	Email	13/04/2023	OUTGOING EMAIL: Sent information to relevant organisation about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1087	Community Session	17/04/2023	Community Information Session held at Warrnambool, Monday 17 April, 6-8pm. Collaborative Session held with Regia 3D MSS.
1202	Email	11/05/2023	INCOMING EMAIL: Stakeholder forwarding EP information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1220	Campaign Email	17/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1674	Social Pinpoint Webinar Registration	8/06/2023	Stakeholder registered for future webinars
1927	Campaign Email	4/07/2023	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2848	Email	10/08/2023	Incoming email - acknowledgement of email and advice that original email has been sent to the relevant person.
2828	Online Contact Portal	10/08/2023	OUTGOING EMAIL through online portal requesting organisation contact.
2920	Email	15/08/2023	OUTGOING EMAIL: ConocoPhillips Australia Otway Exploration Drilling Program

3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**155**
Name of Organisation	[redacted]
Identification Method	Agency/ Industry/ Association database
Function, Interest, Activities	Commercial Fisher within the Southern and Eastern Scalefish and Shark Fishery
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 155 - Consultation Summary

Id	Event Type	Start Date	Summary
173	Email	27/02/2023	OUTGOING EMAIL: to relevant person with information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
898	Email	13/04/2023	OUTGOING EMAIL: Sent information to relevant person about upcoming community information sessions including places, times, and dates. Included contact details for those unable to attend to reach out for information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1853	Letter - Registered Mail	29/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2249	Letter - Registered Mail	5/07/2023	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3498	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
3935	Letter - Registered Mail	27/09/2023	Australia Post Verified as Delivered.
3913	Email	5/10/2023	INCOMING EMAIL: individual responded wishing to be kept on email and mailing lists for information regarding this project
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**170**
Name of Organisation	Atlantis Fisheries Consulting Group PTY. LTD.
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Atlantis FCG offer a range of professional and advisory services to the Australian fishing industry.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 170 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
765	Email	8/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
4253	Email	8/02/2023	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1732	Email	13/02/2023	INCOMING EMAIL: sent from stakeholder noting stakeholders core interests and who they represent. Stakeholder suggested the team work with them in order to minimise risk and impact for fishing and drilling industries. Stakeholder noted widespread industry closures and structural adjustment.
24	Email	14/02/2023	OUTGOING EMAIL: sent to stakeholder responding to previously received email and telephone conversation. Confirmed updated implementation plan thanks to stakeholders suggestions and asked for value in further strategic decisions in cooperation with stakeholder regarding EP process.
1735	Email	14/02/2023	INCOMING EMAIL: sent from stakeholder in reply to recent email correspondence, stakeholder recommends over-communicating what is happening and where so that fishers understand. Stakeholder commented that the fishers likely won't make comments on the EP.
1511	Telephone call	16/02/2023	OUTGOING CALL: No answer. Left message.
167	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2867	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3051	Email	24/08/2023	INCOMING EMAIL: stakeholder responded to project update and requested someone contact him regarding his representation of trawl and shark fishery.
3068	Email	25/08/2023	OUTGOING EMAIL: Emailed individual in response to request for contact
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3272	Email	11/09/2023	OUTGOING EMAIL: sent to stakeholder attempting to clarify when a good time to have a telephone call is.
4622	Email	2/10/2023	OUTGOING EMAIL: sent to stakeholders regarding proposed meeting, offered a meeting time and an agenda for discussion regarding upcoming otway activities.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**171**
Name of Organisation	Southern Shark Industry Alliance (SSIA)
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Southern Shark Industry Alliance seeks to support members whom rely on the sustainable harvesting of the Souther Shark Fishery.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 171 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
766	Email	8/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1732	Email	13/02/2023	INCOMING EMAIL: sent from stakeholder noting stakeholders core interests and who they represent. Stakeholder suggested the team work with them in order to minimise risk and impact for fishing and drilling industries. Stakeholder noted widespread industry closures and structural adjustment.
24	Email	14/02/2023	OUTGOING EMAIL: sent to stakeholder responding to previously received email and telephone conversation. Confirmed updated implementation plan thanks to stakeholders suggestions and asked for value in further strategic decisions in cooperation with stakeholder regarding EP process.
1735	Email	14/02/2023	INCOMING EMAIL: sent from stakeholder in reply to recent email correspondence, stakeholder recommends over-communicating what is happening and where so that fishers understand. Stakeholder commented that the fishers likely won't make comments on the EP.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3051	Email	24/08/2023	INCOMING EMAIL: stakeholder responded to project update and requested someone contact him regarding his representation of trawl and shark fishery.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**173**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial Fisher within the Bass Strait Central Zone Scallop Fishery/Southern Bluefin Tuna Fishery
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 173 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1511	Telephone call	16/02/2023	OUTGOING CALL: No answer. Left message.
240	Email	27/02/2023	Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2874	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3204	Letter - Registered Mail	22/08/2023	Australia Post Verified a Delivered
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**174**				
Name of Organisation	[redacted]				
Function, Interest, Activities	Commercial fisher within the Southern Bluefin Tuna Fishery				
Identification Method	Consulted for Sequoia 3DMSS				
Regulation Category	Regulation 11A (1) (d)				
Subject Centred Category	Commercial Fisher and aquaculture facilities				
Confidential	No guidance given - publish				
Relevant person information	Methodology Met, information provided per consultation approach				

Organisation ID 174 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1511	Telephone call	16/02/2023	OUTGOING CALL: No answer. Left message.
297	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2875	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3211	Letter - Registered Mail	22/08/2023	Australia Post Verified a Delivered
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**175**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Bass Strait Central Zone Scallop Fishery/Southern Bluefin Tuna Fishery
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisaton ID 175 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1511	Telephone call	16/02/2023	OUTGOING CALL: No answer. Left message.
354	Email	27/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2877	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3215	Letter - Registered Mail	22/08/2023	Australia Post Verified a Delivered
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**176**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Southern and Eastern Scalefish and Shark Fishery
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 176 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1511	Telephone call	16/02/2023	OUTGOING CALL: No answer. Left message.
376	Email	27/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2879	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3222	Letter - Registered Mail	28/08/2023	Australia Post Verified as Delivered
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**177**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Bass Strait Central Zone Scallop Fishery/Eastern Tuna and Billfish Fishery/Southern Squid Jig Fishery/Western Tuna and Billfish Fishery/Southern and Eastern Scalefish and Shark Fishery
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 177 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1511	Telephone call	16/02/2023	OUTGOING CALL: No answer. Left message.
391	Email	27/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
694	Email	27/02/2023	INCOMING EMAIL: sent from stakeholder regarding being unhappy with amount of emails being received due to his connection with multiple registered organisations.
4268	Email	27/03/2023	OUTGOING EMAIL: sent to stakeholder responding to his previous correspondence regarding unhappiness due to the large volume of emails being sent due to their connection to multiple organisations. Apologised and confirmed investigation to solve the issue is underway.
940	Email	13/04/2023	OUTGOING EMAIL: sent to stakeholder with information about upcoming community information sessions. Including date, time and location information.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2881	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3225	Letter - Registered Mail	22/08/2023	Australia Post Verified as Delivered
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**179**
Name of Organisation	Small Pelagic Fishery Industry Association Inc. (SPFIA)
Function, Interest, Activities	The SPFIA represents the interests of members who hold quota in Australia's small pelagic fishery.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 179 - Consultation Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1500	Email	16/02/2023	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
4522	Email	23/03/2023	OUTGOING EMAIL: sent to stakeholder regarding clarification as to best method of contact for an organisation the team has had difficulty reaching due to bounce back emails.
4523	Email	24/03/2023	INCOMING EMAIL: sent from stakeholder regarding previous query for correct contact information for an organisation with bounce back emails. Stakeholder informed team he was also a representative for this organisation and that it connects to his social media where the team originally retrieved the email address that no longer works.
707	Email	28/03/2023	OUTGOING EMAIL: sent to stakeholder confirming relationship to organisation. Stakeholder is already well aware of drilling program as they are a relevant person for several organisations. Also apologised to stakeholder for being sent multiple emails with the same information due to his relationship with multiple organisations.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3051	Email	24/08/2023	INCOMING EMAIL: stakeholder responded to project update and requested someone contact him regarding his representation of trawl and shark fishery.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program

Id	184
Name of Organisation	[redacted]
Identification Method	Agency/ Industry/ Association database
Function, Interest, Activities	Commercial Fisher within the Southern and Eastern Scalefish and Shark Fishery/Southern Squid Jig Fishery
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 184 - Consultation Summary

Id	Event Type	Start Date	Summary
205	Email	27/02/2023	OUTGOING EMAIL: to relevant person with notice of preparation of EP to undertake exploration drilling program. Included project information documents and personalised letter.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1879	Letter - Registered Mail	27/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation

3527	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
3971	Letter - Registered Mail	25/09/2023	Australia Post Verified as Delivered.
3833	Email	27/09/2023	INCOMING EMAIL: Individual responded to commercial fishing registered post with updated details and preference to remain a relevant person and continue to receive future updates.
3835	Email	27/09/2023	OUTGOING EMAIL: to relevant person confirming the update of contact details. Also attached previous correspondence that may not have been correctly received.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**189**
Name of Organisation	Corporate Alliance Enterprises Pty Ltd
Function, Interest, Activities	Commercial Fisher within the Southern and Eastern Scalefish and Shark Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 189 - Consultation Summary

Id	Event Type	Start Date	Summary
1444	Email	9/02/2023	OUTGOING EMAIL: to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1556	Telephone call	21/02/2023	OUTGOING CALL: To individual confirm receipt of initial correspondence and consultation.
203	Email	27/02/2023	OUTGOING EMAIL sent to relevant stakeholder containing information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2709	Telephone call	1/08/2023	OUTGOING CALL: No answer. Left Message.
2871	Letter - Registered Mail	14/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2885	Email	14/08/2023	OUTGOING EMAIL: sent to relevant stakeholder containing information and attachments regarding ConocoPhillips Australia Otway Exploration Drilling Program
3000	Letter - Registered Mail	18/08/2023	Australia Post Verified as Delivered
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation

3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**319**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Western Tuna and Billfish Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 319 - Consultation Summary

Id	Event Type	Start Date	Summary
319	Email	27/02/2023	OUTGOING EMAIL: Information sent to relevant person regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
394	Email	27/02/2023	OUTGOING EMAIL Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2113	Letter - Registered Mail	27/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2114	Letter - Registered Mail	3/07/2023	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3701	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
4809	Letter - Registered Mail	27/09/2023	Australia Post verified as delivered.
3836	Email	27/09/2023	INCOMING EMAIL: Individual responded with an updated mail address after receiving commercial fisher registered post.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**320**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Southern Bluefin Tuna Fishery being represented by Tuna Australia (Event ID 1966).
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisation ID 320 - Consultation Summary

Id	Event Type	Start Date	Summary
395	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1966	Email	8/06/2023	INCOMING EMAIL: Stakeholder requested to be removed from contact list and instead hold consultation through parent stakeholder. Provided stakeholder with links and attached information documents as well as advised that all updates are posted to consultation hub.
2110	Letter - Registered Mail	27/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2397	Letter - Registered Mail	7/07/2023	Australia Post Verified a Delivered

Organisation Id	**321**
Name of Organisation	SHIP AGENCIES AUSTRALIA PTY. LTD.
Function, Interest, Activities	Commercial fisher within the Eastern Tuna and Billfish Fishery/Southern Bluefin Tuna Fishery/Southern Squid Jig Fishery represented by Tuna Australia (event ID 1966)
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisation ID 321 - Consultation Summary

Id	Event Type	Start Date	Summary
418	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1161	Email	11/05/2023	OUTGOING EMAIL: Double checking the organisation wants to be taken off the mailing list.
4491	Email	11/05/2023	INCOMING EMAIL from relevant stakeholder confirming who is representing tina fisheries.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1966	Email	8/06/2023	INCOMING EMAIL: Stakeholder requested to be removed from contact list and instead hold consultation through parent stakeholder. Provided stakeholder with links and attached information documents as well as advised that all updates are posted to consultation hub.
2020	Letter - Registered Mail	29/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2423	Letter - Registered Mail	14/07/2023	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

3638	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.

Organisation ID	**364**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Eastern Tuna and Billfish Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisation ID 364 - Consultation Summary

Id	Event Type	Start Date	Summary
458	Email	27/02/2023	OUTGOING EMAIL: to relevant person regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2214	Letter - Registered Mail	29/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2215	Letter - Registered Mail	10/07/2023	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3756	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
4690	Letter - Registered Mail	26/09/2023	Australia Post verified as delivered.
3890	Email	26/09/2023	INCOMING EMAIL: Individual asked to be taken off mailing list and to consult other stakeholder.

Organisation Id	**378**
Name of Organisation	Portland Harbour Tours
Function, Interest, Activities	Tourism operator within Environmental Planning Area
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Contact attempted, no response

Organisation ID 378 - 2.Summary

Id	Event Type	Start Date	Summary
651	Telephone call	20/03/2023 11:22	OUTGOING CALL: No answer. Left message.

Organisation Id	**379**
Name of Organisation	South West Fishing Charters
Function, Interest, Activities	Fishing charter business operating out of Portland Bay Marina
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 379 - 2.Summary

Id	Event Type	Start Date	Summary
660	Email	20/03/2023 15:35	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
889	Email	13/04/2023 16:03	OUTGOING EMAIL: to stakeholder re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3106	Email	29/08/2023 11:07	OUTGOING EMAIL: with project update attached re exploration drilling program

Organisation ID	**380**
Name of Organisation	Hook and Haul Fishing
Function, Interest, Activities	Business in planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Contact attempted, no response

Organisation ID 380 - 2.Summary

Id	Event Type	Start Date	Summary
653	Online Contact Portal	20/03/2023 11:56	WEB PORTAL ENQUIRY to attain email address to send 'Proposed Otway Exploration Drilling Program'.

Organisation Id	**381**
Name of Organisation	Shoreline Charters
Function, Interest, Activities	Fishing charter business operating out of Portland.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 381 - 2.Summary

Id	Event Type	Start Date	Summary
661	Email	20/03/2023 15:42	OUTGOING EMAIL: to relevant person with notice of preparation of an EP to undertake exploration drilling program. Letter and information sheets attached
890	Email	13/04/2023 16:03	OUTGOING EMAIL: to relevant person with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	382
Name of Organisation	Portland Bait and Tackle
Function, Interest, Activities	Business within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Contact attempted, no response

Organisation ID 382 - 2.Summary

Id	Event Type	Start Date	Summary
655	Telephone call	20/03/2023 13:34	OUTGOING CALL: No answer. Left message to obtain their email address to send information about 'Proposed Otway Exploration Drilling Program'..

Organisation Id	**383**
Name of Organisation	Warrnambool Water Ski Club
Function, Interest, Activities	Marine based community group within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Contact attempted, no response

Organisation ID 383 - Consultation Summary

Id	Event Type	Start Date	Summary
656	Telephone call	20/03/2023 13:45	OUTGOING CALL: No answer. Left message.

Organisation Id	**384**
Name of Organisation	Alinta Energy
Function, Interest, Activities	Assessing viability of offshore wind within planning area
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 384 - Consultation Summary

Id	Event Type	Start Date	Summary
1614	Email	7/12/2022	OUTGOING EMAIL - ConocoPhillips: Meeting Request
1616	Email	7/12/2022	OUTGOING EMAIL with ConocoPhillips: Meeting Request
1618	Email	7/12/2022	OUTGOING EMAIL - Meeting Request
1619	Email	7/12/2022	OUTGOING EMAIL: ConocoPhillips: Meeting Request
1621	Email	7/12/2022	OUTGOING EMAIL: ConocoPhillips: Meeting Request
1623	Email	7/12/2022	OUTGOING AND INCOMING EMAIL: [EXTERNAL]Re: ConocoPhillips: Meeting Request
1625	Email	9/12/2022	OUTGOING AND INCOMING: ConocoPhillips: Meeting Request
1754	Email	22/02/2023	INCOMING EMAIL: Spinifex Offshore Wind Farm: Data sharing agreement
534	Email	2/03/2023	INCOMING EMAIL: Exhange regarding data sharing agreement with other company
611	Email	13/03/2023	OUTGOING EMAIL: Sent initial correspondence about the proposed Otway Offshore Exploration Drillingn Program
646	Email	16/03/2023	OUTGOING EMAIL: regarding Spinifex Offshore Wind Farm: Data sharing agreement and information on proposed Otway Exploration Drilling Program
673	Email	20/03/2023	OUTGOING EMAIL: ConocoPhillips Australia Otway Exploration Drilling Program
1005	Email	18/04/2023	OUTGOING EMAIL: Offshore Wind Farm: Data sharing agreement
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1227	Email	19/05/2023	INCOMING EMAIL: Received Spinifex May 2023 project update
1228	Email	19/05/2023	OUTGOING EMAIL: sent most recent Otway Exploration Drilling Program Update
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**385**
Name of Organisation	Port Campbell Community Group Inc.
Function, Interest, Activities	Community group that works to educate, foster appreciation, and improve, protect and conserve the Port Campbell headland's natural, cultural, social, and scientific values
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 385 - Consulation Summary

Id	Event Type	Start Date	Summary
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1701	Email	16/06/2023	OUTGOING EMAIL with attachment re Upcoming Community Information Session for the Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**386**
Name of Organisation	Port Campbell Progress Group Inc
Function, Interest, Activities	Community Progress Group in Environmental Planning Area
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 386 - Consultation Summary

Id	Event Type	Start Date	Summary
901	Email	13/04/2023	OUTGOING EMAIL: to relevant person with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1702	Email	16/06/2023	OUTGOING EMAIL: to relevant person with information regarding Upcoming Community Information Session for the Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**387**
Name of Organisation	Surfers for Climate
Function, Interest, Activities	Registered charity with a mission to empower and mobilise a sea-roots movement for positive climate action
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 387 - Consultation Summary

Id	Event Type	Start Date	Summary
785	Email	9/02/2023	OUTGOING EMAIL with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program.
1573	Telephone call	21/02/2023	OUTGOING CALL - Left voice message that is converted to text to call back via our number.
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**388**
Name of Organisation	Professional Fishers' Association
Function, Interest, Activities	The PFA is a not-for-profit representative group providing a voice for members of the professional fishing industry in NSW.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 388 - Consultation Summary

Id	Event Type	Start Date	Summary
4393	Email	9/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1545	Telephone call	20/02/2023	OUTGOING CALL: No answer. Left message.
1215	Email	17/05/2023	OUTGOING EMAIL: to stakeholder with notice of EP to undertake exploration drilling program with letter and information sheets attached
1220	Campaign Email	17/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**391**
Name of Organisation	South Gippsland Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 391 - Consultation S

Id	Event Type	Start Date
127	Email	27/02/2023
4394	Email	27/02/2023
493	Email	27/02/2023
576	Email	8/03/2023
642	Email	13/03/2023
4410	Email	14/03/2023
4408	Email	14/03/2023
4409	Email	14/03/2023
933	Email	13/04/2023
1205	Campaign Email	17/05/2023
1414	Campaign Email	19/05/2023
1637	Campaign Email	8/06/2023
2625	Campaign Email	27/07/2023
2833	Telephone call	10/08/2023
3048	Telephone call	22/08/2023
3049	Email	24/08/2023
3050	Campaign Email	24/08/2023
3080	Email	28/08/2023
3081	Email	28/08/2023
4404	Email	28/08/2023
3181	Campaign Email	31/08/2023
3332	Email	31/08/2023

3193	Email	4/09/2023
3259	Email	8/09/2023
3260	Email	8/09/2023
4397	Email	8/09/2023
3286	Email	8/09/2023
3859	Campaign Email	3/10/2023
4392	Campaign Email	27/10/2023
4846	Campaign Email	17/11/2023
4879	Campaign Email	1/12/2023

ummary

Summary
OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program. with letter and information sheets attached
INCOMING EMAIL: from stakeholder with Automatic Response for Otway Exploration Drilling Proposal
INCOMING EMAIL: from stakeholder re organising group meeting surrounding the Drilling Program development
OUTGOING EMAIL: to stakeholder with follow up for meeting request with suggested dates
INCOMING EMAIL: from individual confirming meeting time
INCOMING EMAIL: from individual re meeting times
OUTGOING EMAIL: to individual with meeting times
OUTGOING EMAIL: to stakeholder with t information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
OUTGOING CALL: No Answer, Left message.
INCOMING CALL - Missed call from individual.
OUTGOING EMAIL: to individual with suggested times for briefing.
OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
INCOMING EMAIL: from individual confirming briefing time
OUTGOING EMAIL: with Response to individual regarding meeting times.
INCOMING EMAIL: from individual re meeting
OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
INCOMING EMAIL: Organisation auto reply - received email.

OUTGOING EMAIL: to individual clarifying options for reporting on consultation in the EP or in the sensitive information report.
OUTGOING EMAIL: to individual with Draft notes of meeting with ConocoPhillips Australia
OUTGOING EMAIL: to stakeholder with updated version of meeting notes
INCOMING EMAIL: from individual confirming they are happy with meeting notes
INCOMING EMAIL: Individual acknowledgement of TRP's attachments.
OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**392**
Name of Organisation	East Gippsland Shire Council
Function, Interest, Activities	Local Council located within planning area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 392 - Consultation Summary

Id	Event Type	Start Date	Summary
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3333	Email	31/08/2023 19:56	INCOMING EMAIL: Auto reply
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1763	Email	27/02/2023 14:06	INCOMING EMAIL - Automated Response From East Gippsland Shire
133	Email	27/02/2023 12:41	OUTGOING EMAIL with attached information for Relevant Person re the preparation of an Environment Plan to undertake an exploration drilling program in the offshore Otway Basin. Included project information documents.
131	Email	27/02/2023 12:40	OUTGOING EMAIL with attachments for Relevant Person information re proposal for an exploration drilling program in the offshore Otway Basin

Organisation Id	**399**
Name of Organisation	POT OF GOLD ENTERPRISES PTY LTD
Function, Interest, Activities	Commercial fisher within the Southern Squid Jig Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Regulation 11A (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 399 - Consultation Summary

Id	Event Type	Start Date	Summary
387	Email	27/02/2023	OUTGOING EMAIL: to relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2030	Letter - Registered Mail	29/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2031	Letter - Registered Mail	4/07/2023	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3697	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
4803	Letter - Registered Mail	4/10/2023	Australia Post Verified as Delivered.
3986	Telephone call	5/10/2023	INCOMING CALL - Missed call from relevant person; caller left voice message.
3985	Telephone call	9/10/2023	OUTGOING TELEPHONE CALL. Returned individual's call and responded to enquiry about potential impacts.
4983	Telephone call	9/10/2023	OUTGOING TELEPHONE CALL: Spoke with relevant person regarding otway exploration drilling program and addressed concerns related to their functions, interests, and activities.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**426**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Western Tuna and Billfish Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 426 - Consultation Summary

Id	Event Type	Start Date	Summary
3043	Letter - Registered Mail	24/08/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3221	Letter - Registered Mail	28/08/2023	Australia Post Verified as Delivered
3685	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
4778	Letter - Registered Mail	22/09/2023	Australia Post Verified as Delivered.

Organisation Id	**444**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial Fisher within the Western Tuna and Billfish Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisational ID 444 - Consultation Summary

Id	Event Type	Start Date	Summary
4599	Email	27/02/2023	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1986	Letter - Registered Mail	29/06/2023	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3199	Letter - Registered Mail	29/08/2023	Australia Post Verified as Return to Sender - item not collected.
3173	Email	29/08/2023	INCOMING EMAIL: Individual advised to consult with another entity and remove them from mailing lists.
3604	Letter - Registered Mail	19/09/2023	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.

Organisation Id	**462**
Name of Organisation	Mahina Bay Fishing Co Pty Ltd
Function, Interest, Activities	Commercial fisher within the Southern and Eastern Scalefish and Shark Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 462 - Consultation Summary

Id	Event Type	Start Date	Summary
320	Email	27/02/2023	OUTGOING EMAIL: Sent relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
904	Email	13/04/2023	OUTGOING EMAIL: Sent information to relevant person about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1635	Community Session	31/05/2023	COMMUNITY INFORMATINO SESSION - Commercial Fishing focus.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1673	Social Pinpoint Webinar Registration	8/06/2023	SOCIAL PINPOINT -Stakeholder registered for future webinars'
1650	Campaign Email	12/06/2023	OUTGOING EMAIL: Project Update - June 2024 PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1662	Telephone call	13/06/2023	OUTGOING TELEPHONE CALL: Called individual to discuss consultation approach and what information was needed. Agreed to send commercial fishing information sheet and current fishing intensity map.
1670	Email	13/06/2023	OUTGOING EMAIL: Sent Information Sheet and intensity maps to stakeholder for review and consideration.
1927	Campaign Email	4/07/2023	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2124	Telephone call	6/07/2023	OUTGOING TELEPHONE CALL. Called individual to see if they had feedback or questions on information provided.
2534	Campaign Email	24/07/2023	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3001	Email	21/08/2023	INCOMING EMAIL: Response received from individual regarding the information that ConocoPhillips requires (functions, interests and activities) about their activities.
3005	Email	22/08/2023	OUTGOING EMAIL: Sent response to individuals request for information.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3432	Email	5/09/2023	INCOMING EMAIL: Individual responded providing additional information regarding potential impact of proposed activity.
3361	Campaign Email	13/09/2023	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4227	Email	23/10/2023	OUTGOING EMAIL: sent to stakeholder with response to Objections and Claims. Included attached letter with official response.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**468**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Southern and Eastern Scalefish and Shark Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Regulation 11A (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 468 - 2.Summary

Id	Event Type	Start Date	Summary
165	Email	27/02/2023 15:27	OUTGOING EMAIL: to relevant person with information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
340	Email	27/02/2023 16:20	OUTGOING EMAIL: to relevant person with information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2043	Letter - Registered Mail	27/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
1848	Letter - Registered Mail	29/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2702	Letter - Registered Mail	1/08/2023 14:00	Australia Post Verified a Delivered
3187	Letter - Registered Mail	1/08/2023 14:14	Australia Post Verified as Delivered
2705	Telephone call	1/08/2023 14:37	INCOMING CALL - Received call from individual relating to correspondence sent via registered mail. Committed to having project team return to discuss.
2707	Telephone call	1/08/2023 14:40	OUTGOING CALL: To Individual to discuss proposed activity and spatial extent.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID 470 - 1.Details

Id	**470**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Southern Bluefin Tuna Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 470 - 2.Summary

Id	Event Type	Start Date	Summary
393	Email	27/02/2023 16:35	OUTGOING EMAIL: to relevant person with information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2117	Letter - Registered Mail	27/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2118	Letter - Registered Mail	30/06/2023 14:57	Australia Post Verified a Delivered
2417	Letter - Registered Mail	13/07/2023 13:05	Received Registered post from stakeholder confirming themselves as an interested relevant person who would like to receive information as it becomes available. Stakeholder had concerns regarding the environmental impacts of the proposed EP.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3369	Email	14/09/2023 12:23	OUTGOING EMAIL: RESPONSE TO OBJECTIONS AND CLAIMS: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID 471 - 1.Details

Id	**471**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Bass Strait Central Zone Scallop Fishery/Southern Squid Jig Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 471 - 2.Summary

Id	Event Type	Start Date	Summary
808	Letter	9/02/2023 14:42	NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
397	Email	9/02/2023 16:35	OUTGOING EMAIL: to individual with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
55	Email	21/02/2023 14:08	OUTGOING EMAIL: to individual with initial email follow up, confirming stakeholders interest in the Otway Exploration Drilling Program.
535	Email	22/02/2023 15:08	INCOMING EMAIL: from individual confirming their interests in the Otway drilling program
536	Telephone call	2/03/2023 15:27	OUTGOING CALL to individual in response to email received.
537	Email	2/03/2023 15:51	OUTGOING EMAIL: to individual with follow up email from previous conversation, confirming more EP information sheets to come and will be sent directly to the stakeholder
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1312	Telephone call	23/05/2023 11:56	OUTGOING CALL: No answer. Left Message.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2168	Letter - Registered Mail	27/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2170	Letter - Registered Mail	4/07/2023 16:34	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3371	Letter	14/09/2023 12:35	Email sent with formal letter in response to objections and claims raised.
4432	Email	14/09/2023 12:35	OUTGOING EMAIL: to individual with response to objections and claims
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**473**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial fisher within the Eastern Tuna and Billfish Fishery
Identification Method	Agency/ Industry/ Association database
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisation ID 473 - 2.Summary

Id	Event Type	Start Date	Summary
421	Email	27/02/2023 16:41	OUTGOING EMAIL: to relevant person with information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
4434	Email	5/03/2023 7:51	INCOMING EMAIL: from individual requesting that all communications are directed via another stakeholder
549	Email	6/03/2023 7:48	OUTGOING EMAIL: to individual asking if they still receive information regarding EP
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2155	Letter - Registered Mail	27/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2399	Letter - Registered Mail	10/07/2023 9:46	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2631	Email	30/07/2023 9:24	INCOMING EMAIL: Individual requested removal from mailing list and consult another stakeholder instead
2632	Email	31/07/2023 9:11	OUTGOING EMAIL: Confirmed individual has been taken off mailing list.

Organisation Id	**474**
Name of Organisation	[redacted]
Identification Method	Agency/ Industry/ Association database
Function, Interest, Activities	Commercial fisher within the Western Tuna and Billfish Fishery
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisation ID 474 - 2.Summary

Id	Event Type	Start Date	Summary
531	Email	2/03/2023 13:24	OUTGOING EMAIL: Attempt to confirm stakeholder interests and information updates regarding the EP
4436	Email	2/03/2023 12:30	INCOMING EMAIL: from individual requesting information be received via industry body
480	Email	28/02/2023 7:59	OUTGOING EMAIL: to stakeholder confirming that an org will be contacted as relevant person
4435	Email	27/02/2023 20:02	INCOMING EMAIL: from individual with thanks for notifications and request that all proposals be directed to another org
431	Email	27/02/2023 16:43	OUTGOING EMAIL: to relevant person with information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.

Organisation Id	**475**
Name of Organisation	TUNA FARMERS PTY LTD
Identification Method	Agency/ Industry/ Association database
Function, Interest, Activities	See event 3900 - Managing Director wants us to consult Tuna Australia Commercial fisher within the Southern Bluefin Tuna Fishery
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Opted to be represented by alternative organisation/ individual

Organisation ID 475 - 2.Summary

Id	Event Type	Start Date	Summary
450	Email	27/02/2023 16:50	OUTGOING EMAIL: to relevant person information regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included project information documents and personalised letter.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2015	Letter - Registered Mail	29/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
2384	Letter - Registered Mail	11/07/2023 9:28	Australia Post Verified a Delivered
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3085	Letter - Registered Mail	28/08/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3246	Letter - Registered Mail	5/09/2023 9:02	Australia Post Verified a Delivered
3748	Letter - Registered Mail	19/09/2023 0:00	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
3633	Letter - Registered Mail	19/09/2023 0:00	Sent Registered Mail - Letter confirming our multiple contact attempts regarding our relevant persons list and ceasing communication regarding ongoing consultation unless stakeholder notifies otherwise. Included with this letter is a final assessment document regarding how we have assessed the environmental impacts and risks to fisheries and the control measures we have identified that will reduce impacts and risks to acceptable levels that are as low as reasonably practicable.
4709	Letter - Registered Mail	28/09/2023 12:31	Australia Post verified as delivered.
3900	Email	4/10/2023 11:14	INCOMING EMAIL: Individual asking four business to be taken off and correspond with other stakeholder.
3895	Email	4/10/2023 12:36	OUTGOING EMAIL: Clarifying if the four companies wish to be taken off relevant stakeholder.

Organisation Id	**485**
Name of Organisation	[redacted]
Function, Interest, Activities	Commercial Fisher in Environmental Planning Area
Identification Method	Consultation Hub – Consultation Survey
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 485 - 2.Summary

Id	Event Type	Start Date	Summary
1180	Community Session	2/05/2023 10:03	Community Information session hosted in Port Fairy
1225	Social Pinpoint Complete Consultation Survey	2/05/2023 16:55	Individual completed Stakeholder Survey
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2605	Email	26/07/2023 10:38	OUTGOING EMAIL: to individual with response to feedback re Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**487**
Name of Organisation	Topfish Tasmania
Function, Interest, Activities	Commercial Fisher in Environmental Planning Area
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 487 - 2.Summary

Id	Event Type	Start Date	Summary
4883	Email	3/12/2023 11:05	INCOMING EMAIL: sent from stakeholder querying seabed analysis process. Stakeholder offered their vessels and expertise.
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
1971	Email	4/07/2023 14:00	OUTGOING EMAIL: Responded to stakeholders interest in being included as a relevant person and interest in information updates. Clarified misconception involving seismic acquisition.
1959	Email	4/07/2023 12:07	INCOMING EMAIL: from relevant person advising they are an active fisher and charter vessel operator and would like to be kept informed of any developments.
2054	Letter - Registered Mail	3/07/2023 10:55	Australia Post Verified a Delivered
2053	Letter - Registered Mail	27/06/2023 8:55	Sent Registered Mail – Included with this letter is an information sheet on commercial fishing that summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from the proposed activity. Also included are recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community compiled by our regulator The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1041	Telephone call	2/05/2023 15:15	OUTGOING CALL: To individual in response to his follow-up email about provision of support services during a drilling campaign.
4460	Email	2/05/2023 14:44	INCOMING EMAIL: from stakeholder touching base in regards to process of Otway Project
4461	Email	27/02/2023 16:22	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached

1756	Email	22/02/2023 8:46	INCOMING EMAIL: Stakeholder following up phone call conversation supplying relevant details regarding vessel information.
2491	Email	16/02/2023 12:03	OUTGOING EMAIL: Responded to stakeholders interest in support vessel assistance.
543	Email	16/02/2023 11:56	INCOMING EMAIL: Response from stakeholder after being advised information had been passed to the supply chain team for future reference.
1730	Email	10/02/2023 12:00	INCOMING EMAIL: Stakeholder responded to initial contact expressing interest in providing support vessel assistance.
4459	Email	9/02/2023 15:35	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached

Organisation Id	**495**
Name of Organisation	Warrnambool Tours
Function, Interest, Activities	land based tours along the coastline, including land-based Whale Watching tours. They are also a transit provider for Beach activities.
Identification Method	Desktop Research
Regulation Category	Regulation 11A (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 495 - 2.Summary

Id	Event Type	Start Date	Summary
667	Email	20/03/2023 16:24	OUTGOING EMAIL: sent to relevant stakeholder containing information on ConocoPhillips Australia Otway Exploration Drilling Program
927	Email	13/04/2023 16:24	Outgoing email sent to relevant stakeholder containing information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
997	Telephone call	17/04/2023 15:21	OUTGOING CALL: To individual to discuss ongoing consultation.
1087	Community Session	17/04/2023 16:18	Collaborative Community Information Session at Warrnambool
1100	Meeting - In-person	18/04/2023 9:00	MEETING with stakeholder following community information session to discuss her functions, interests and activities and how she'd like to be consulted during the EP development process.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**496**
Name of Organisation	Fishcare Victoria
Function, Interest, Activities	Community operated not-for-profit that promotes responsible fishing practices and increased stewardship of Victoria's aquatic environments and is funded by the Victorian Government.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 496 - 2.Summary

Id	Event Type	Start Date	Summary
607	Email	13/03/2023 12:12	OUTGOING EMAIL: Outgoing email sent to relevant stakeholder containing initial correspondence about the proposed Otway Offshore Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**498**
Name of Organisation	Kelp Industries Pty. Ltd
Function, Interest, Activities	Harvests storm cast kelp on NW Tas shoreline
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 498 - 2.Summary

Id	Event Type	Start Date	Summary
590	Email	13/03/2023 12:12	OUTGOING EMAIL: Sent relevant stakeholder an email containing initial correspondence about the proposed Otway Offshore Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1829	Campaign Email	30/06/2023 16:03	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3082	Telephone call	28/08/2023 11:53	OUTGOING CALL: Spoke with stakeholder regarding Otway Exploration Drilling Program correspondence and consultation; stakeholder confirmed receipt of information and confirmed possible interest in face-to-face consultation once back on the island after Draft EP release. Stakeholder confirmed he still wants to receive updates as they become available.
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID 499 - 1.Details

Id	**499**
Name of Organisation	Apollo Bay Fishing and Adventure Tours
Function, Interest, Activities	Tourism operator within the Environmental Planning Area.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 499 - 2.Summary

Id	Event Type	Start Date	Summary
665	Email	20/03/2023 16:10	OUTGOING EMAIL: sent to relevant stakeholder regarding ConocoPhillips Australia Otway Exploration Drilling Program
926	Email	13/04/2023 16:24	OUTGOING EMAIL: Sent relevant stakeholder information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023 15:13	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023 16:52	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**501**
Name of Organisation	Beach Energy
Function, Interest, Activities	Titleholder in Otway Basin
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 501 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
778	Email	8/02/2023 14:30	OUTGOING EMAIL: Letter sent to relevant stakeholder containing information regarding the ConocoPhillips Australia Otway Exploration Drilling Program
1300	Email	8/02/2023 15:23	OUTGOING EMAIL: Email sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1515	Telephone call	16/02/2023 13:45	OUTGOING TELEPHONE CALL to organisation to check receipt of information; no response - left a voice message to contact us via phone call.
1516	Telephone call	16/02/2023 13:49	OUTGOING TELEPHONE CALL to organisation to check if they have received correspondence about the 'Proposed Otway Exploration Drilling Program'. Receptionist transferred call; no answer so team member left a message for a call back.
70	Email	22/02/2023 11:32	Incoming email sent from relevant stakeholder requesting they be contacted going forward.
107	Email	23/02/2023 15:19	INCOMING EMAIL: from relevant stakeholder requesting to be added to email distribution list
1251	Email	11/05/2023 12:03	INCOMING EMAIL: from relevant stakeholder confirming that they will be a delay in response as they are currently away.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1217	Social Pinpoint Webinar Registration	17/05/2023 12:41	WEBINAR REGISTRATION: Stakeholder registered for future webinars on the Consultation Hub.
1221	Campaign Email	18/05/2023 13:46	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1329	Webinar	23/05/2023 9:58	Webinar hosted by ConocoPhillips Australia. Provided Overview of proposed Otway Exploration Drilling Program, Regulatory Framework, the drilling process and the Preliminary Environmental Risk and Impact Assessment.
3958	Received Campaign Email	29/05/2023 12:26	General info sheet for development of offshore natural gas reserves
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
3905	Email	14/07/2023 12:44	INCOMING EMAIL: Titleholder giving dates and times for community drop-in sessions
3904	Email	14/07/2023 12:50	INCOMING EMAIL: Titleholder holding community drop-in session.
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3171	Email	23/08/2023 9:46	INCOMING EMAIL: OGV Seabed Assessment EP - Info Sheet
3172	Email	23/08/2023 10:35	INCOMING EMAIL: Beach Energy finalising environmental management plan email.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3330	Email	31/08/2023 19:56	INCOMING EMAIL: Auto reply
3335	Email	31/08/2023 19:56	INCOMING EMAIL: Auto reply
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program

3472	Email	19/09/2023 16:45	INCOMING EMAIL: Received project update - Connection of remaining two Thylacine Wells
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**502**
Name of Organisation	Australian Southern Bluefin Tuna Industry Association (ASBTIA)
Function, Interest, Activities	ASBTIA is the peak body representing Southern Bluefin Tuna ranching companies in Australia. The Association has 8 member companies, which is 100% of the local industry.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 502 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
106	Email	25/11/2022 8:47	INCOMING EMAIL: from stakeholder with acknowledgement of email and wanting to work with us and attached service agreement
1255	Email	25/11/2022 8:53	INCOMING EMAIL: from Stakeholder with confirmation of registered interest regarding permits and exploration activities
4262	Email	8/02/2023 15:23	OUTGOING EMAIL: to stakeholder with notification of preparation of an EP to undertake offshore drilling program. letter and information sheets attached
4869	Email	8/02/2023 15:30	OUTGOING EMAIL: sent to stakeholder regarding commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Included personalised letter and attached relevant information documents.
1498	Telephone call	16/02/2023 9:03	OUTGOING CALL: No answer. Left message.
1587	Telephone call	23/02/2023 8:13	OUTGOING CALL: No answer. Left message.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1256	Email	22/05/2023 13:17	OUTGOING EMAIL: to stakeholder attempt at confirmation of stakeholders contact information.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**503**
Name of Organisation	Bass Strait Scallop Industry Association
Function, Interest, Activities	The Bass Strait Scallop Industry Association Inc. represents the interests of Commonwealth managed scallop fishers, quota holders and processors.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 503 - 2.Summary

Id	Event Type	Start Date	Summary
106	Email	25/11/2022 8:47	INCOMING EMAIL: from stakeholder with acknowledgement of email and wanting to work with us and attached service agreement
762	Letter	8/02/2023 12:21	FW: NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
4261	Email	8/02/2023 13:49	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake offshore drilling program. including letter and information sheets
1722	Email	9/02/2023 12:55	INCOMING EMAIL: from stakeholder stating not resourced to provide feedback on EP and to direct enquiries to relevant persons listed
66	Email	15/02/2023 11:16	INCOMING EMAIL: Not resourced to give feedback on our Environment Plan.
1493	Telephone call	5/06/2023 12:08	OUTGOING CALL: To organisation to discuss consultation approach.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3980	Letter - Registered Mail	25/09/2023 13:28	Australia Post Verified as Delivered.
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**504**
Name of Organisation	Cooper Energy
Function, Interest, Activities	Titleholder in Otway Basin
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 504 - 2.Summary

Id	Event Type	Start Date	Summary
4260	Email	8/02/2023 15:22	OUTGOING EMAIL: to stakeholder with note of preparation of EP to undertake exploration drilling program with letter and information sheets attached
1519	Telephone call	16/02/2023 14:22	OUTGOING TELEPHONE CALL to organisation to check receipt of information about the proposed OEDP; no answer, so team member left a voice message to contact us via phone call.
1377	Telephone call	17/02/2023 11:53	INCOMING TELEPHONE CALL from organisation, as per request, acknowledging receipt of information.
85	Telephone call	17/02/2023 14:32	INCOMING CALL: Missed call. Message left.
506	Email	28/02/2023 12:14	INCOMING EMAIL: from stakeholder activity update in relation to offshore activities
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
2598	Email	11/05/2023 19:19	INCOMING EMAIL: to Stakeholder responding to information sent confirming they would like to be kept updated regarding Otway exploration progress.
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**505**
Name of Organisation	Sydney Fish Market
Function, Interest, Activities	Is owned equally by the harvest and post-harvest sectors of the NSW seafood industry souring product from across Australia
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 505 - 2.Summary

Id	Event Type	Start Date	Summary
1510	Telephone call	16/02/2023 11:36	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
4257	Email	16/02/2023 12:09	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program. Letter and information sheets attached
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1509	Telephone call	5/06/2023 13:54	OUTGOING CALL: To organisation to confirm contact details.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
3138	Email	29/08/2023 11:38	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**506**
Name of Organisation	Great Australian Bight Fishing Industry Association Inc. (GABIA)
Function, Interest, Activities	GABIA works closely with the Commonwealth and State governments, researchers and other stakeholders, to help shape the sustainable future and controlled use of the clean, pristine waters of the Great Australian Bight.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 506- 2.Summary

Id	Event Type	Start Date	Summary
4577	Email	8/02/2023 15:18	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letters and information sheets attached
1720	Email	9/02/2023 9:00	NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
1506	Telephone call	16/02/2023 10:45	OUTGOING CALL: No Answer. Unable to leave message.
1505	Telephone call	16/02/2023 10:45	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1588	Telephone call	23/02/2023 8:16	OUTGOING CALL: No answer. Unable to leave a message,
1589	Telephone call	23/02/2023 8:45	OUTGOING CALL: No answer. Left message.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2557	Telephone call	24/07/2023 15:10	OUTGOING CALL: No answer. Unable to leave a message.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation

Organistion Id	**507**
Name of Organisation	Women's Industry Network Seafood Community (WINSC)
Function, Interest, Activities	National Organisation representing women in the seafood industry.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 507 - 2.Summary

Id	Event Type	Start Date	Summary
1302	Email	8/02/2023 15:22	OUTGOING EMAIL: to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1507	Telephone call	16/02/2023 11:02	OUTGOING CALL: No answer. Left message.
1590	Telephone call	23/02/2023 8:47	OUTGOING CALL: To organisation to discuss consultation.

Organisation Id	**508**
Name of Organisation	Blue Whale Study
Function, Interest, Activities	Organisation focused on the conservation and research of the Bule Whale.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Research and Academic Institutions
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 508 - 2.Summary			
Id	**Event Type**	**Start Date**	**Summary**
2529	Contract Management	7/09/2022	OUTGOING CALL: To discuss ongoing regional collaboration opportunities, consultancy work and philanthropic.
103	Campaign Email	25/11/2022	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4264	Email	2/12/2022	INCOMING EMAIL: whale survey with images attached
1685	Email	25/01/2023	INCOMING EMAIL: Survey update and animal sightings
1749	Email	17/02/2023	INCOMING EMAIL: Blue whale sightings 16 February 2023
1532	Telephone call	20/02/2023	OUTGOING CALL: No answer. Left message.
770	Email	4/04/2023	INCOMING EMAIL: Blue whale sightings
946	Email	13/04/2023	OUTGOING EMAIL: to stakeholder with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1018	Email	24/04/2023	INCOMING EMAIL: whale Survey results - 23 April
2535	Email	3/05/2023	INCOMING EMAIL: Stakeholder enquiring as to how blue whale data is being included in the EP and if data could be sent directly to them for comparison.
1099	Contract Management	4/05/2023	OUTGOING CALL: To individual regarding feedback received regarding sharing of whale data.
1103	Email	4/05/2023	OUTGOING EMAIL: to stakeholder with draft MoU for data sharing
1104	Email	4/05/2023	OUTGOING EMAIL: to stakeholder with MoU for data sharing incl attachment - to support consultation
4273	Email	5/05/2023	INCOMING EMAIL: from stakeholder re MoU for data sharing and request data for long term analysis of ecological dynamics and possible publication
4274	Email	5/05/2023	OUTGOING EMAIL: to stakeholder responding to query re data sharing.
4275	Email	5/05/2023	INCOMING EMAIL: from stakeholder with signed data agreement letter
2536	Meeting - Virtual	8/05/2023	briefed stakeholder regarding Otway Exploration Drilling Program
1164	Email	11/05/2023	OUTGOING EMAIL: to stakeholder with signed MOI and available data to date
4276	Email	11/05/2023	INCOMING EMAIL: from stakeholder confirming receipt of data and data sharing agreement
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1332	Email	24/05/2023	OUTGOING EMAIL: to stakeholder with meeting notes for review.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3194	Email	4/09/2023	INCOMING EMAIL: from stakeholder re draft EP chapters and operational area
3305	Email	11/09/2023	INCOMING EMAIL: from stakeholder checking to see if previous email had been received re logger mooring adjacent to proposed drilling area
3303	Email	12/09/2023	OUTGOING EMAIL: to stakeholder re location mapping and checking by exploration team

3310	Email	12/09/2023	OUTGOING EMAIL: to stakeholder Second attempt to reply as first response email bounced back
4277	Email	12/09/2023	INCOMING EMAIL: from stakeholder re temperature logger service
4278	Email	13/09/2023	INCOMING EMAIL: from stakeholder confirming receipt of email
4281	Email	13/09/2023	OUTGOING EMAIL: to stakeholder re further sensors being added to temperature loggers
4279	Email	13/09/2023	OUTGOING EMAIL: to stakeholder re timing on temperature logging and query whether there are opportunities to add sensors
4280	Email	13/09/2023	INCOMING EMAIL: from stakeholder re adding sensors to temperature loggers
4282	Email	15/09/2023	INCOMING EMAIL: from stakeholder re further sensors being added to temperature loggers
5001	Contract Management	26/09/2023	OUTGOING EMAIL: requesting support for the development of the Marine Mammal Adaptive Management Plan for the Otway Exploration Drilling Program. Asking for availability for a Teams meeting
4283	Contract Management	26/09/2023	OUTGOING EMAIL: to stakeholder re contracting them to provide support of Marine Mammal Adaptive Management Plan
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3862	Email	3/10/2023	OUTGOING EMAIL to stakeholder with attachment, responding to feedback.
5015	Contract Management	3/10/2023	INCOMING EMAIL: from stakeholder confirming interest in Teams meeting to hear about the plan and idea on how their organisation can be involved
4284	Contract Management	3/10/2023	INCOMING EMAIL: from stakeholder re providing support for the development of MMAMP
5011	Contract Management	3/10/2023	OUTGOING EMAIL: with meeting invitation
5010	Contract Management	3/10/2023	OUTGOING EMAIL: with meeting invite
5002	Contract Management	4/10/2023	OUTGOING EMAIL: thanking for time and insights around the development of a marine mammal monitoring and mitigation strategy for the Otway Basin with key points from the discussion in the presentation attached
5003	Contract Management	6/10/2023	INCOMING EMAIL: with vendor details as requested
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
5004	Contract Management	31/10/2023	OUTGOING EMAIL: to notify that organisation is set up as a vendor in system and asking if they have had a chance to think about reviewing the Marine Mammal Adaptive Management Plan/Whale Management Plan
5005	Contract Management	2/11/2023	INCOMING EMAIL: stating that organisation is still interested in reviewing Whale Management Plan
5006	Contract Management	2/11/2023	OUTGOING EMAIL: Requesting a quick proposal and a cost estimate for work with summary of contents of draft Whale Management Plan to assist with quote
5007	Contract Management	8/11/2023	INCOMING EMAIL: with cost estimate for reviewing draft Whale Management Plan
5008	Contract Management	14/11/2023	OUTGOING EMAIL: notifying that Purchase Requisition has been entered into system and will let stakeholder know once the Purchase Order (PO) has been approved to arrange a meeting
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
5009	Contract Management	22/11/2023	OUTGOING EMAIL: confirming purchase order has been approved and availability for a kick off meeting
5012	Contract Management	28/11/2023	OUTGOING EMAIL: thanking for time in meeting and providing Whale Management Plan for review

4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
5013	Contract Management	19/12/2023	INCOMING EMAIL: from stakeholder with review of WMP. Documents attached
5014	Contract Management	20/12/2023	OUTGOING EMAIL: thanking for feedback on WMP
5021	Contract Management	4/01/2024	INCOMING EMAIL: Sent from individual with meeting request acceptance
5019	Contract Management	4/01/2024	OUTGOING EMAIL: Sent to individuals requesting time to review the revised whale management plan.
5020	Contract Management	4/01/2024	INCOMING EMAIL: Sent from stakeholder confirming meeting availability
5022	Contract Management	26/01/2024	INCOMING EMAIL: Sent from stakeholder querying review comments and who they would be sent by.
5023	Contract Management	27/01/2024	OUTGOING EMAIL: Sent to individual confirming receival of review comments and providing them to the individual as per their request in the past correspondence.
5024	Contract Management	27/01/2024	INCOMING EMAIL: Sent from individual thanking the team and confirming they will send a response to the comments as soon as possible.
5039	Contract Management	7/02/2024	OUTGOING EMAIL: Sent to individual following up on marine mammal plan review and availability for a meeting.
5040	Contract Management	7/02/2024	INCOMING EMAIL: Sent from individual replying to last correspondence noting their availability and that they will follow up once they have had time to look at the marine mammal plan.
5041	Contract Management	8/02/2024	OUTGOING EMAIL: Sent to individual querying availability from the week of the 19th for a meeting.
5043	Contract Management	8/02/2024	INCOMING EMAIL: Sent from individual thanking team.

Organisation Id	**509**
Name of Organisation	Deakin University – School of Life and Environmental Sciences
Function, Interest, Activities	University that has historically undertaken marine conservation research pertaining to offshore petroleum exploration activities.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Research and Academic Institutions
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 509 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1417	Email	9/02/2023 15:44	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1533	Telephone call	20/02/2023 10:23	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
930	Email	13/04/2023 16:27	Outgoing email sent to relevant stakeholder containing information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**510**
Name of Organisation	Ocean Racing Club of Victoria (ORCV)
Function, Interest, Activities	Yacht club within Environmental Planning Area that operates a range of annual races, including an annual race to Grassy King Island and the "Westcoaster".
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 510 - 2.Summary

Id	Event Type	Start Date	Summary
814	Email	9/02/2023 14:42	Outgoing Email: sent to stakeholder regarding otway exploration drilling program environmental plan commencement. Included personalised letter and attached relevant information documents.
1400	Email	9/02/2023 15:57	OUTGOING EMAIL: Email sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1539	Telephone call	20/02/2023 13:20	OUTGOING CALL: To organisation to confirm receipt of initial correspondence and discuss consultaiton.
81	Email	20/02/2023 14:31	Incoming email from relevant stakeholder stating they have forwarded the email containing information about the exploration drilling project to Sail Captain and Commodore for comment.
2612	Email	20/02/2023 15:19	Outgoing email sent stakeholder information regarding Otway exploration drilling program and the environmental plan.
2613	Email	6/03/2023 15:26	INCOMING EMAIL: email from stakeholder responding requesting exclusion zone information and noting that they would like to receive progress updates.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2609	Email	27/07/2023 10:01	OUTGOING EMAIL: Responded to stakeholder regarding exclusion zone information with included attachments, offered consultation to provide further information directly responding to their functions, interests, or activities.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**511**
Name of Organisation	Southern Coast Charters
Function, Interest, Activities	Fishing charter operating out of Port Fairy.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 511 - 2.Summary

Id	Event Type	Start Date	Summary
1422	Email	9/02/2023 15:41	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1540	Telephone call	20/02/2023 13:20	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
668	Email	20/03/2023 16:29	OUTGOING EMAIL: sent to relevant stakeholder containing information regarding ConocoPhillips Australia Otway Exploration Drilling Program
925	Email	13/04/2023 16:24	Outgoing email sent to stakeholder regarding information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4857	Email	17/11/2023 16:00	Relevant Person has unsubscribed from receiving email campaigns after receiving notice of public comment period.

Organisation Id	512
Name of Organisation	[redacted]
Function, Interest, Activities	Seal boat tours operating out of Stanley.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 512 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1428	Email	9/02/2023 15:38	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1543	Telephone call	20/02/2023 15:02	OUTGOING CALL: No answer. Left message.
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**513**
Name of Organisation	King Island Regional Development Organisation
Function, Interest, Activities	The King Island Regional Development Organisation (KIRDO) is a not for profit association. KIRDO is a hub for information about King island.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 513 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
787	Email	9/02/2023 14:42	OUTGOING EMAIL: sent to stakeholder regarding otway exploration drilling program environmental plan commencement. Included personalised letter and attached relevant information documents.
1413	Email	9/02/2023 15:45	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
4385	Email	27/04/2023 14:01	OUTGOING EMAIL: to relevant stakeholder regarding a cost estimate and delivery regarding printing and mail distribution service
2562	Email	27/04/2023 14:01	OUTGOING EMAIL: email requesting printing and letter/mail box distribution
4386	Email	27/04/2023 14:42	INCOMING EMAIL: from relevant stakeholder regarding a cost estimate and delivery regarding printing and mail distribution service
4387	Email	27/04/2023 15:20	OUTGOING EMAIL: to relevant stakeholder confirming the cost estimate and delivery regarding printing and mail distribution service
4388	Email	27/04/2023 15:32	INCOMING EMAIL: from stakeholder confirming a cost estimate and delivery regarding printing and mail distribution service
4389	Email	27/04/2023 16:36	OUTGOING EMAIL: to relevant stakeholder inquiring about thickness of paper regarding printing and mail distribution service
4390	Email	1/05/2023 12:24	INCOMING EMAIL: from relevant including an invoice for printing and mail distribution service.
4384	Email	11/05/2023 10:44	INCOMING EMAIL: from relevant stakeholder regarding setting up a potential meeting.
4602	Meeting - In-person	16/05/2023 18:00	Meeting in-person: Dinner hosted on King Island to provide briefing for interested businesses and persons about process of environmental assessment and consultation with relevant persons.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1829	Campaign Email	30/06/2023 16:03	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
4380	Email	2/07/2023 15:45	OUTGOING EMAIL: regarding a request cost for KIRDO printing and mail distribution
1831	Email	2/07/2023 15:57	OUTGOING EMAIL: requesting printing for stakeholder printing and mail distribution
4381	Email	2/07/2023 17:17	INCOMING EMAIL: from relevant stakeholder stating cost for KIRDO printing and mail distribution
4382	Email	2/07/2023 19:59	OUTGOING EMAIL: regarding KIRDO printing and mail distribution and possible timeline of delivery
4383	Email	3/07/2023 6:21	INCOMING EMAIL: from relevant stakeholder regarding cost estimate and delivery for KIRDO printing and mail distribution
1928	Email	3/07/2023 14:53	Email from relevant stakeholder containing an invitation to stakeholder group members for dinner meeting
3911	Email	3/07/2023 15:30	INCOMING EMAIL: Individual acknowledged invite and will forward the invitation.
4500	Email	4/07/2023 14:37	INCOMING EMAIL from relevant stakeholder containing an invitation to KIRDO members for dinner meeting.
4502	Email	4/07/2023 18:39	OUTGOING EMAIL to relevant stakeholder thanking them for sending an invitation to KIRDO members for dinner meeting.
1977	Email	5/07/2023 14:48	Thank you email to stakeholder for sending out dinner meeting Invitation to stakeholder group members.
4503	Email	5/07/2023 15:44	INCOMING EMAIL - meeting from relevant stakeholder stating flyers had been distributed for stakeholder dinner meeting.
4506	Email	8/07/2023 10:02	INCOMING EMAIL email from relevant stakeholder regarding a point of contact and the number of attendees for a stakeholder dinner.
4510	Email	8/07/2023 14:14	OUTGOING EMAIL to relevant stakeholder regarding attendees, catering and projectors in relation to the KIRDO dinner meeting.
4512	Email	10/07/2023 13:31	INCOMING EMAIL from stakeholder containing and invitation to the Conoco Phillips Dinner Meeting
2346	Email	11/07/2023 11:57	Outgoing email to relevant stakeholder containing a dinner meeting invitation
2377	Meeting - In-person	12/07/2023 8:52	Presentation to organisation members on EP progress, including summary of feedback received through consultation to-date.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.

3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3097	Telephone call	29/08/2023 10:51	OUTGOING CALL: To arrange USB copies of the DRAFT Environment Plan chapters to be available from the KIRDO office for King Island residents to review.
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3367	Letter	14/09/2023 11:34	Sent three USB's containing DRAFT EP Chapters for King Island residents to access should they wish.
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**514**
Name of Organisation	Recreational Fishing Alliance NSW
Function, Interest, Activities	Peak Body for Recreational Fishing in NSW
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 514 - 2.Summary

Id	Event Type	Start Date	Summary
1408	Email	9/02/2023 15:48	OUTGOING EMAIL sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1546	Telephone call	20/02/2023 14:29	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3090	Email	29/08/2023 10:11	OUTGOING EMAIL sent to relevant stakeholder regarding an update regarding the ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**515**
Name of Organisation	South Australian Aquaculture Council (SAAC)
Function, Interest, Activities	Peak Industry Association for South Australia aquaculture.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 515 - 2.Summary

Id	Event Type	Start Date	Summary
4292	Email	9/02/2023 15:41	OUTGOING EMAIL: to stakeholder with notification of preparation of an EP to undertake exploration drilling. With letter and information sheets attached
1547	Telephone call	20/02/2023 14:41	OUTGOING CALL: No answer. Left message.
639	Email	13/03/2023 12:12	OUTGOING EMAIL: Notification sent to relevant stakeholder containing initial correspondence about the proposed Otway Offshore Exploration Drilling Program
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**516**
Name of Organisation	Seafood Industry SA
Function, Interest, Activities	Peak Industry Association for South Australia representing fishers and processors.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 516 - 2.Summary

Id	Event Type	Start Date	Summary
1214	Email	17/05/2023 11:25	OUTGOING EMAIL: to relevant stakeholder containing information regarding the ConocoPhillips Australia Otway Exploration Drilling Program
1220	Campaign Email	17/05/2023 13:16	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**517**
Name of Organisation	King Island Boat Club
Function, Interest, Activities	Boat club in Environmental Planning Area.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 517 - 2.Summary

Id	Event Type	Start Date	Summary
1406	Email	9/02/2023 15:50	Email sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1544	Email	20/02/2023 14:14	OUTGOING EMAIL: sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1548	Telephone call	20/02/2023 14:46	OUTGOING CALL: To individual to confirm receipt of initial correspondence and discuss consultation approach.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1829	Campaign Email	30/06/2023 16:03	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**518**
Name of Organisation	King Island Pleasure Tours
Function, Interest, Activities	Tourism business offering tours and packages within King Island including ocean fishing tours.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 518 - 2.Summary

Id	Event Type	Start Date	Summary
820	Email	9/02/2023 14:42	OUTGOING EMAIL: sent to stakeholder notifying of commencement of environment plan preparation for otway exploration drilling program. Attached personalised letter and relevant information documents.
1552	Telephone call	21/02/2023 8:47	OUTGOING CALL: No answer. Unable to leave a message.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1829	Campaign Email	30/06/2023 16:03	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**519**
Name of Organisation	Gippsland Ports
Function, Interest, Activities	Gippsland Ports is the local port and waterway manager responsible for the five local ports and four waterways within the Environmental Planning Area
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (b)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 519 - 2.Summary

Id	Event Type	Start Date	Summary
1402	Email	9/02/2023 15:54	Outgoing email sent to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
60	Email	22/02/2023 9:59	INCOMING EMAIL: containing a response from Ra relevant stakeholder clarifying engagement approach.
64	Email	22/02/2023 11:08	INCOMING EMAIL: from relevant stakeholder requesting to be removed from the consultation list
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1569	Telephone call	5/06/2023 18:35	OUTGOING CALL: To organisation to discuss consultation.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**520**
Name of Organisation	Proline Fishing Charters
Function, Interest, Activities	Fishing charter operating around the Southern Ocean, Bass Strait and Port Philip Bay region.
Identification Method	Consulted for Sequoia 3DMSS
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 520 - 2.Summary

Id	Event Type	Start Date	Summary
47	Email	9/02/2023 15:40	Outgoing email to relevant stakeholder containing information and attachments regarding the ConocoPhillips Australia Otway Exploration Drilling Program
1553	Telephone call	21/02/2023 8:58	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
4310	Email	21/02/2023 14:51	OUTGOING EMAIL forwarding relevant stakeholder information and attachments regarding ConocoPhillips Australia Otway Exploration Drilling Program following a phone call.
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**521**
Name of Organisation	Australian Wildcatch Fishing
Function, Interest, Activities	Integrated business offering a range of services to the commercial fishing industry, including seafood processing and vessel maintenance.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 521 - 2.Summary

Id	Event Type	Start Date	Summary
1444	Email	9/02/2023 15:21	OUTGOING EMAIL: to stakeholder with formal letter advising on upcoming Otway drilling program with two fact sheets - Consultation and Project Overview
1556	Telephone call	21/02/2023 10:35	OUTGOING CALL: To individual confirm receipt of initial correspondence and consultation.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2709	Telephone call	1/08/2023 15:02	OUTGOING CALL: No answer. Left Message.
2885	Email	14/08/2023 11:18	OUTGOING EMAIL: sent to relevant stakeholder containing information and attachments regarding ConocoPhillips Australia Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**522**
Name of Organisation	Surfrider Foundation
Function, Interest, Activities	Registered charity committed to fostering a just, equitable, diverse and inclusive organisation who protect and enjoy the worlds ocean, waves and beaches.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 522 - 2.Summary

Id	Event Type	Start Date	Summary
520	Email	1/03/2023 14:54	Outgoing email: sent to relevant asking for contact details regarding consultation for the ConocoPhillips Australia Otway Exploration Drilling Program
610	Email	13/03/2023 12:12	OUTGOING EMAIL: Sent initial correspondence about the proposed Otway Offshore Exploration Drilling Program
609	Email	13/03/2023 12:12	OUTGOING EMAIL: to relevant stakeholder regarding initial correspondence about the proposed Otway Offshore Exploration Drilling Program
1085	Community Session	15/03/2023 15:41	Community Drop-in session hosted. 11.30-2.30 3-7pm
4398	Email	1/04/2023 13:30	INCOMING EMAIL: email from relevant stakeholder suggesting more stakeholder to be consulted
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1202	Email	11/05/2023 12:07	INCOMING EMAIL: Stakeholder forwarding EP information.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1672	Social Pinpoint Webinar Registration	8/06/2023 10:32	Stakeholder registered for future webinars
1829	Campaign Email	30/06/2023 16:03	OUTGOING EMAIL: King Island Community Information Sessions Invitation: Community Information Session - Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2642	Community Session	13/07/2023 9:45	Community Information Session held at the King Island Town Hall, Thursday 13 July 6-8pm.
2641	Community Session	13/07/2023 9:45	Community Information Session Thursday 13 July 11am-1pm.
2643	Community Session	13/07/2023 10:01	King Island Fishers Information Session - King Island 3-5pm
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program

3478	Telephone call	20/09/2023 15:06	OUTGOING CALL: To individual to offer meeting to discuss objections and claims regarding draft EP Chapters.
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**523**
Name of Organisation	Otways Climate Emergency Action Network (OCEAN)
Function, Interest, Activities	Climate advocacy organisation that champions an informed and motivated Otways community taking bold and effective action for climate justice.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 523 - 2.Summary

Id	Event Type	Start Date	Summary
612	Email	13/03/2023	OUTGOING EMAIL: sent to relevant stakeholder regarding initial correspondence about the proposed Otway Offshore Exploration Drilling Program
977	Email	13/04/2023	OUTGOING EMAIL: email sent to relevant stakeholder regarding information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1076	Social Pinpoint Comment	15/04/2023	I have only just received the notice of meetings along the Victorian Coastline. I am away at moment. Will there be additional consultations? This is not enough time for people to arrange attendance and organise themselves. When and how was this notice of meetings advertised please?
1803	Email	17/04/2023	INCOMING EMAIL from relevant stakeholder regarding the short notice of the community meeting
2725	Email	18/04/2023	OUTGOING EMAIL: responding to a relevant stakeholder regarding consultation.
1804	Email	21/04/2023	INCOMING EMAIL from relevant stakeholder organizing consultation.
1035	Telephone call	28/04/2023	INCOMING CALL: From individual regarding consultation approach.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
4422	Email	16/06/2023	OUTGOING EMAIL: email sent to relevant stakeholder regarding an upcoming Community Information Session for the Otway Exploration Drilling Program
1742	Email	16/06/2023	Outgoing email sent to relevant stakeholder regarding an upcoming Community Information Session for the Otway Exploration Drilling Program
4431	Email	19/06/2023	INCOMING EMAIL: from relevant stakeholder requesting further contact regarding the Community Information Session for the Otway Exploration Drilling Program
4430	Email	19/06/2023	INCOMING EMAIL: email from relevant stakeholder requesting furth contact regarding the Community Information Session for the Otway Exploration Drilling Program
1761	Email	19/06/2023	OUTGOING EMAIL: to relevant stakeholder regarding a potential meeting in relation to the Otway Drilling Program
3942	Email	19/06/2023	INCOMING EMAIL: Individual telling why they need contact details for a consultant
1805	Email	20/06/2023	INCOMING EMAIL from relevant stakeholder to organise further in-person consultation.
4428	Email	17/07/2023	INCOMING EMAIL: email from relevant stakeholder requesting further contact regarding upcoming Community Information Session for the Otway Exploration Drilling Program

4429	Email	19/07/2023	OUTGOING EMAIL: email to relevant stakeholder regarding who will be supporting the upcoming Community Information Session for the Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4958	Public Comment	18/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
5117	Email	21/02/2024	OUTGOING EMAIL: Provided response to public comment submission.

Organisation ID	**524**
Name of Organisation	Wilderness Society
Function, Interest, Activities	The Wilderness Society is an Australian, community-based, not-for-profit non-governmental environmental advocacy organisation.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 524 - 2.Summary

Id	Event Type	Start Date	Summary
1085	Community Session	15/03/2023	Community drop-in session held at King Island. Wednesday 15 March, 11.30-2.30 3-7pm.
4439	Email	16/03/2023	INCOMING EMAIL: From relevant stakeholder enquiring to check if a survey had been completed.
1777	Email	16/03/2023	INCOMING EMAIL: from relevant stakeholder containing the link to the K.I.R. Report
648	Email	16/03/2023	OUTGOING EMAIL: to stakeholder thanking them for completing a survey.
709	Email	30/03/2023	OUTGOING EMAIL: responding to relevant stakeholder thanking for advice and feedback and providing more information regarding the Otway Drilling Program
1778	Email	30/03/2023	INCOMING EMAIL from relevant stakeholder containing ChatGPT result of 'Climate Change Action Plan'
832	Social Pinpoint Registered for Updates	31/03/2023	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
714	Email	2/04/2023	OUTGOING EMAIL: Response to stakeholder acknowledging information received on ChatGPT assessment of ConocoPhillips' Climate Change Action Plan.
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
4438	Email	21/08/2023	INCOMING EMAIL: from relevant stakeholder requesting a draft EP.
2986	Social Pinpoint Registered for Updates	22/08/2023	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3480	Email	20/09/2023	INCOMING EMAIL: from relevant stakeholder stating they have received objections and claims regarding draft EP chapters
4445	Email	20/09/2023	INCOMING EMAIL: from relevant stakeholder regarding relevant persons consultation to in relation to the Proposed Otway Exploration Drilling Program
4446	Email	21/09/2023	OUTGOING EMAIL: to relevant stakeholder thanking them for providing their objections and claims in relation to the Proposed Otway Exploration Drilling Program
4447	Email	22/09/2023	IINCOMING EMAIL: from relevant stakeholder discussing a times and dates to meet and discuss the Proposed Otway Exploration Drilling Program
4644	Email	25/09/2023	OUTGOING EMAIL: sent to stakeholder letting them know that the team will discuss availability for meeting times and will send them through.
3809	Email	26/09/2023	OUTGOING EMAIL: Responded to individual proposing date and time for meeting
3816	Email	26/09/2023	INCOMING EMAIL: Individual confirming meeting time
4451	Email	26/09/2023	OUTGOING EMAIL: to relevant stakeholder discussing a time to meet to discuss the Proposed Otway Exploration Drilling Program
4453	Email	26/09/2023	INCOMING EMAIL: From relevant stakeholder discussing a time to meet to discuss the Proposed Otway Exploration Drilling Program
4444	Email	2/10/2023	INCOMING EMAIL: Received from relevant stakeholder requesting a meeting to discuss the Proposed Otway Exploration Drilling Program.

3995	Email	2/10/2023	INCOMING EMAIL: Email detailing the MS Teams meeting accepted by individuals
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4359	Meeting - Virtual	3/10/2023	Virtual meeting to provide project update and discuss feedback, objections and claims.
4089	Email	16/10/2023	OUTGOING EMAIL: Sent to Wilderness Society to provide the Draft Meeting Notes from 3/10/23 for approval and ppt slides for the record.
4440	Email	16/10/2023	OUTGOING EMAIL: Individual provided correction of draft meeting notes. Individual also added information provided to be made public, they do believe consultation with TWS is not complete.
4441	Email	23/10/2023	INCOMING EMAIL: Relevant stakeholder provided correction of draft meeting notes. Stakeholder also added information provided to be made public, they do believe consultation with TWS is not complete.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4527	Email	27/10/2023	OUTGOING EMAIL: Email to stakeholder with formal letter responding to objections and claims raised.
4637	Email	7/11/2023	OUTGOING EMAIL: Email sent to stakeholder with formal letter in response to objections and claims raised.
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4959	Public Comment	22/11/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4922	Public Comment	23/11/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4932	Public Comment	17/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4930	Public Comment	18/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4917	Public Comment	18/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
5099	Email	21/02/2024	OUTGOING EMAIL: Provided response to public comment submission

Organisation Id	**525**
Name of Organisation	Seals by Sea Tours
Identification Method	Desktop Research
Function, Interest, Activities	Seal Tour operating in the waters around Portland.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 525 - 2.Summary

Id	Event Type	Start Date	Summary
594	Email	13/03/2023 12:12	OUTGOING EMAIL: sent to relevant stakeholder containing initial correspondence about the proposed Otway Offshore Exploration Drilling Program
928	Email	13/04/2023 16:25	OUTGOING EMAIL: Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**526**
Name of Organisation	3D Oil
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	JV Partner
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 526 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1682	Email	9/01/2023 8:03	INCOMING EMAIL: Received email from industry peer regarding their own project update.
1065	Social Pinpoint Registered for Updates	20/04/2023 10:04	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
1064	Social Pinpoint Webinar Registration	20/04/2023 10:04	Stakeholder registered for future webinars
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1221	Campaign Email	18/05/2023 13:46	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1281	Social Pinpoint Registered for Updates	22/05/2023 17:13	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
1329	Webinar	23/05/2023 9:58	Webinar hosted by ConocoPhillips Australia. Provided Overview of proposed Otway Exploration Drilling Program, Regulatory Framework, the drilling process and the Preliminary Environmental Risk and Impact Assessment.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**527**
Name of Organisation	Apollo Bay Fishing Charters
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Tourism operator within Environmental Planning Area
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 527 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4391	Email	9/02/2023 15:36	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling with letter and information sheets attached
1541	Telephone call	20/02/2023 13:55	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
595	Email	13/03/2023 12:12	OUTGOING EMAIL: Sent initial correspondence about the proposed Otway Offshore Exploration Drillingn Program
920	Email	13/04/2023 16:22	OUTGOING EMAIL: Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023 15:13	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023 16:52	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**528**
Name of Organisation	Australian Oceanographic Services Pty Ltd
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Offshore marine and research service provider within Environmental Planning Area
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 528 - 2.Summary

Id	Event Type	Start Date	Summary
720	Email	5/03/2023 6:54	INCOMING EMAIL from stakeholder noting receipt of information but indicating that further information will help them to understand any potential impacts.
2477	Email	13/04/2023 16:50	OUTGOING EMAIL inviting stakeholder to community information sessions, with details and links to more information.
1187	Email	21/04/2023 7:46	INCOMING EMAIL from stakeholder requesting additional information as unable to attend community sessions.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1160	Email	11/05/2023 12:16	INCOMING EMAIL from stakeholder responding to project update and requesting drilling locations.
1162	Email	11/05/2023 13:04	OUTGOING EMAIL: Responding to stakeholder's request for drilling site information and proposing online meeting to discuss proposed activity.
1184	Email	11/05/2023 13:14	INCOMING EMAIL - Stakeholder raised concern regarding need for precise drilling information.
1204	Email	16/05/2023 13:38	OUTGOING EMAIL Responding to stakeholder regarding drilling location details and concerns, invited stakeholder to meeting, either online or in person for further discussion.
1239	Email	19/05/2023 13:32	INCOMING EMAIL: from stakeholder responding with continued concern regarding approach with relevant persons.
1245	Email	21/05/2023 19:42	INCOMING EMAIL: from Stakeholder providing information regarding their background and offering professional assistance.
1246	Email	22/05/2023 7:44	OUTGOING EMAIL: Responding to stakeholder's offer and proposing joint consultation.
1324	Email	24/05/2023 6:09	INCOMING EMAIL - Stakeholder confirmed in-person joint consultation.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2484	Email	11/06/2023 11:14	INCOMING EMAIL - Stakeholder contacted sending their resume.
1651	Email	12/06/2023 15:26	OUTGOING EMAIL - Responded to stakeholder and acknowledged receiving resume.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3017	Email	28/07/2023 18:09	INCOMING EMAIL - Stakeholder informing confusion in community around drilling and seismic surveys.
3019	Email	31/07/2023 9:04	OUTGOING EMAIL to stakeholder acknowledging confusion with other activities and informing of an attempt to address with an interactive map.
2727	Email	3/08/2023 12:12	Outgoing email to relevant stakeholder regarding feedback on the ConocoPhillips Australia Otway Exploration Drilling Program including objections and claims letter attached.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation

3194	Email	4/09/2023 7:54	INCOMING EMAIL: from stakeholder re draft EP chapters and operational area
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4615	Email	12/10/2023 6:14	INCOMING EMAIL: sent from stakeholder with attached letter outlining their interests and potential conflicts of interest regarding otway drilling program.
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**529**
Name of Organisation	ACTEON Data and Robotics
Identification Method	Consultation Hub – Webinar
Function, Interest, Activities	Offshore provider for installing, maintaining and removing marine infrastructure.
Regulation Category	Section 25 (1) (e)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 529 - 2.Summary

Id	Event Type	Start Date	Summary
1056	Social Pinpoint Webinar Registration	21/04/2023 9:31	Stakeholder registered for future webinars
2478	Email	21/04/2023 10:39	INCOMING EMAIL: from stakeholder wishing to register interest for seabed surveys
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1221	Campaign Email	18/05/2023 13:46	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023 12:58	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**530**
Name of Organisation	Apollo Bay Surf and Kayak
Identification Method	Desktop Research
Function, Interest, Activities	Tourism operator within Environmental Planning Area
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 530 - 2.Summary

Id	Event Type	Start Date	Summary
599	Email	13/03/2023 12:12	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets
911	Email	13/04/2023 16:19	OUTGOING EMAIL: Sent information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023 15:13	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023 16:52	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**532**
Name of Organisation	Bagout Fishing Charters
Identification Method	Desktop Research
Function, Interest, Activities	Fishing charter operator within Environmental Planning area
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation Id	**533**
Name of Organisation	Colac Yacht Club
Identification Method	Desktop Research
Function, Interest, Activities	Yacht club operating within Victorian waters around Colac.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 533 - 2.Summary

Id	Event Type	Start Date	Summary
608	Email	13/03/2023 12:12	OUTGOING EMAIL with attachments re the proposed Otway Offshore Exploration Drilling Program,
924	Email	13/04/2023 16:24	OUTGOING EMAIL with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**534**
Name of Organisation	Portland Yacht Club
Identification Method	Desktop Research
Function, Interest, Activities	Yacht club operating within Victorian waters around Portland.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 534 - 2.Summary

Id	Event Type	Start Date	Summary
605	Email	13/03/2023 12:12	OUTGOING EMAIL with Notice and attachments re the proposed Otway Offshore Exploration Drilling Program.
918	Email	13/04/2023 16:22	OUTGOING EMAIL with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**535**
Name of Organisation	World Wide Fund for Nature Australia (WWF)
Identification Method	Desktop Research
Function, Interest, Activities	Registered Australian Charity partners with governments, businesses, communities and individuals to address a range of pressing environmental issues.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 535 - 2.Summary

Id	Event Type	Start Date	Summary
617	Email	13/03/2023 9:00	OUTGOING EMAIL with Notice and attachments re proposed Otway Offshore Exploration Drilling Program.
2568	Email	11/05/2023 12:03	INCOMING EMAIL - Auto-reply acknowledged email has been received.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3308	Email	31/08/2023 19:56	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**536**
Name of Organisation	Tasmanian Association for Recreational Fishing
Identification Method	Desktop Research
Function, Interest, Activities	Peak Body for Recreational Fishing in Tasmania
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 536 - 2.Summary

Id	Event Type	Start Date	Summary
621	Email	13/03/2023 12:12	OUTGOING EMAIL with attachments re proposed Otway Offshore Exploration Drilling Program.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**537**
Name of Organisation	Kingston District Council
Identification Method	Desktop Research
Function, Interest, Activities	Local Council located within planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Local Council
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 537 - 2.Summary

Id	Event Type	Start Date	Summary
136	Email	27/02/2023 14:30	OUTGOING EMAIL with attachments - Relevant Person information re preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin.
4861	Email	27/02/2023 14:31	OUTGOING EMAIL: sent to stakeholder regarding the commencement of preparation of an Environment Plan to undertake an exploration drilling program in Commonwealth waters in the offshore Otway Basin. Attached personalised letter and relevant information documents.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3322	Email	31/08/2023 19:56	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**538**
Name of Organisation	Pro Red Fishing Charters Melbourne
Identification Method	Desktop Research
Function, Interest, Activities	Fishing Tour Operator operating from Melbourne to Portland, Victoria.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 538 - 2.Summary

Id	Event Type	Start Date	Summary
670	Email	20/03/2023 16:36	OUTGOING EMAIL: with attachments re ConocoPhillips Australia Otway Exploration Drilling Program
910	Email	13/04/2023 16:19	OUTGOING EMAIL with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3142	Email	29/08/2023 11:48	OUTGOING EMAIL with project update: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**539**
Name of Organisation	[redacted]
Identification Method	Desktop Research
Function, Interest, Activities	Fishing store and boat sales located in Warrnambool.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 539 - 2.Summary

Id	Event Type	Start Date	Summary
597	Email	13/03/2023 12:12	OUTGOING EMAIL with attachments re the proposed Otway Offshore Exploration Drilling Program
922	Email	13/04/2023 16:23	OUTGOINE EMAIL re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3140	Email	29/08/2023 11:44	OUTGOING EMAIL - Update ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**540**
Name of Organisation	Surf N Fish
Identification Method	Desktop Research
Function, Interest, Activities	Surf and Fish shop in environmental planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 540 - 2.Summary

Id	Event Type	Start Date	Summary
596	Email	13/03/2023 12:12	OUTGOING EMAIL - Notice ad attached information re proposed Otway Offshore Exploration Drilling Program.
921	Email	13/04/2023 16:23	OUTGOING EMAIL providing information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1728	Campaign Email	16/06/2023 15:13	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
1741	Campaign Email	16/06/2023 16:52	OUTGOING EMAIL: Upcoming Community Information Session for the Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**541**
Name of Organisation	Port Fairy Yacht Club
Identification Method	Desktop Research
Function, Interest, Activities	Yacht club operating within Victorian waters around Port Fairy.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 541 - 2.Summary

Id	Event Type	Start Date	Summary
604	Email	13/03/2023 12:12	OUTGOING EMAIL with attachments re proposed Otway Offshore Exploration Drilling Program
917	Email	13/04/2023 16:21	OUTGOING EMAIL with attachments re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1034	Email	27/04/2023 22:27	OUTGOING EMAIL with information about upcoming Community Information Session at Port Fairy Community House on Tuesday 2 May at 6pm. Event flyer attached.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2551	Telephone call	24/07/2023 15:00	OUTGOING CALL: No answer. Unable to leave a message.
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**543**
Name of Organisation	Tasmanian Seaweed Fertilisers
Identification Method	Desktop Research
Function, Interest, Activities	Seaweed processor located on the northwest coast of Tasmania that processes storm cast bull kelp and make fertiliser.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 543 - 2.Summary

Id	Event Type	Start Date	Summary
591	Email	13/03/2023 12:12	OUTGOING EMAIL with attachments re proposed Otway Offshore Exploration Drilling Program
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**544**
Name of Organisation	Kelpomix Tasmania
Identification Method	Desktop Research
Function, Interest, Activities	Kelp processor located Tasmania that processes storm cast bull kelp and make kelp based products.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 544 - 2.Summary

Id	Event Type	Start Date	Summary
593	Email	13/03/2023 12:12	OUTGOING EMAIL with attachments re the proposed Otway Offshore Exploration Drilling Program
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**546**
Name of Organisation	Environment Protection Authority (SA)
Identification Method	Desktop Research
Function, Interest, Activities	The Environment Protection Authority (EPA) is South Australia's independent environment protection regulator.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 546 - 2.Summary

Id	Event Type	Start Date	Summary
1490	Telephone call	15/02/2023 13:16	OUTGOING CALL: To organisation to confirm contact details.
1489	Email	15/02/2023 13:25	OUTGOING EMAIL with attachments re: ConocoPhillips Australia Otway Exploration Drilling Program
1738	Email	15/02/2023 13:28	INCOMING EMAIL - EPA SA Case Raised
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3408	Email	24/08/2023 14:30	INCOMING EMAIL - Auto Reply with Case Number
3296	Email	31/08/2023 7:57	INCOMING EMAIL with Auto reply case number
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**547**
Name of Organisation	Game On Charters Portland
Identification Method	Desktop Research
Function, Interest, Activities	Fishing charter that operates in NSW waters around Batemans Bay.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 547 - 2.Summary

Id	Event Type	Start Date	Summary
640	Email	13/03/2023 12:12	OUTGOING EMAIL: with attachments re the proposed Otway Offshore Exploration Drilling Program
4362	Email	13/04/2023 11:26	OUTGOING EMAIL: with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**548**
Name of Organisation	Gone Fishing Charters - Portland Tuna Charters
Identification Method	Desktop Research
Function, Interest, Activities	Fishing charter that operates in Victorian waters around Port Phillip Bay and Bass Strait.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 548 - 2.Summary

Id	Event Type	Start Date	Summary
598	Email	13/03/2023 12:12	OUTGOING EMAIL with Notice and attachments re the proposed Otway Offshore Exploration Drilling Program.
923	Email	13/04/2023 16:23	OUTGOING EMAIL with attached information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**549**
Name of Organisation	Lakes Entrance Fisherman's CoOp
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	The cooperative is one of the largest fishing cooperatives in Australia.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 549 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
767	Email	8/02/2023 12:21	OUTGOING EMAIL with Notice and attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1503	Telephone call	16/02/2023 10:26	OUTGOING CALL: Individual not available, message left.
944	Email	13/04/2023 16:32	OUTGOING EMAIL with attached information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**550**
Name of Organisation	Salty Dog Fishing Charters
Identification Method	Community Meeting/ Public Outreach
Function, Interest, Activities	Fishing charter business operating in Environmental Planning Area
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 550 - 2.Summary

Id	Event Type	Start Date	Summary
1031	SMS	27/04/2023 21:58	Text message sent to stakeholder informing them of an upcoming information session on the proposed Otway Exploration Drilling program in their area.
1180	Community Session	2/05/2023 10:03	Community Information session hosted in Port Fairy
1141	Social Pinpoint Complete Consultation Survey	3/05/2023 9:48	SOCIAL PINPOINT Individual completed Stakeholder Survey
1142	Social Pinpoint Webinar Registration	3/05/2023 14:41	Stakeholder registered for future webinars
4907	Social Pinpoint Registered for Updates	3/05/2023 16:28	Stakeholder registered to receive updates regarding the project
1126	Telephone call	5/05/2023 13:52	OUTGOING CALL: No answer. No message left.
1127	SMS	5/05/2023 13:55	OUTGOING SMS: To individual in response to consultation hub responses.
1145	Meeting - Virtual	8/05/2023 11:05	ConocoPhillips Otway Exploration Drilling Program Introduction Invitation sent
1146	Email	8/05/2023 13:46	OUTGOING EMAIL: to individual re Relevant Person Consultation
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1159	Email	11/05/2023 12:19	OUTGOING EMAIL: to individual with permit and operational area coordinates
1221	Campaign Email	18/05/2023 13:46	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2726	Email	3/08/2023 12:05	OUTGOING EMAIL: to individual with formal response to the objections and claims raised
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**551**
Name of Organisation	Mako Ocean Adventures
Identification Method	Referred by another stakeholder/ relevant person
Function, Interest, Activities	Operates ocean tours of local marine parks.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 551 - 2.Summary

Id	Event Type	Start Date	Summary
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**552**
Name of Organisation	Sea Shepherd Australia
Identification Method	Desktop Research
Function, Interest, Activities	Not for profit conservation organisation whose mission is to end the destruction of habitat and slaughter of wildlife in the world's oceans.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 552 - 2.Summary

Id	Event Type	Start Date	Summary
615	Email	13/03/2023 12:12	OUTGOING EMAIL: to stakeholder with notice of preparation of EP to undertake exploration drilling program with letter and information sheets attached
906	Email	13/04/2023 16:18	OUTGOING EMAIL: to stakeholder with information re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**553**
Name of Organisation	Australian Parents For Climate Action (North Tas and Surf Coast)
Identification Method	Email to project email
Function, Interest, Activities	Climate advocacy organisation for parents, career, families and all who care about a safe future for kids who educate and empower supports to make the climate safer for every child.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 553 - 2.Summary

Id	Event Type	Start Date	Summary
5105	Email	21/02/2024	OUTGOING EMAIL: Advised of administrative error in letter sent.
5093	Email	21/02/2024	OUTGOING EMAIL: Sent to individual responding to their public comment submission.
4999	Email	18/01/2024	OUTGOING EMAIL: Sent to individual acknowledging the previous correspondence.
4989	Email	16/01/2024	INCOMING EMAIL: Sent from stakeholder acknowledging preferred email contact method as requested in previous correspondence.
4988	Email	16/01/2024	OUTGOING EMAIL: sent to relevant person reattempting confirmation of preferred contact due to previous unsuccessful attempt with alternative email address. Attached copies of previous correspondence attempt.
4987	Email	16/01/2024	OUTGOING EMAIL: Sent to stakeholder requesting clarification of preferred email contact.
4991	Public Comment	17/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3823	Email	27/09/2023	OUTGOING EMAIL: to stakeholder with response to feedback/objections and claims
3397	Email	13/09/2023	INCOMING EMAIL: from stakeholder confirming agreed meeting notes
3400	Email	13/09/2023	INCOMING EMAIL: from stakeholder confirming agreed meeting notes
3358	Email	13/09/2023	OUTGOING EMAIL: to stakeholder with amended meeting notes for agreement
3357	Email	11/09/2023	INCOMING EMAIL: from stakeholder requesting additional change to meeting notes
3356	Email	11/09/2023	INCOMING EMAIL: from stakeholder re transparency point in meeting notes
4336	Email	11/09/2023	OUTGOING EMAIL: to stakeholder with amended meeting notes
3278	Email	11/09/2023	INCOMING EMAIL: from stakeholder with comments re draft meeting notes
3401	Email	7/09/2023	OUTGOING EMAIL: to stakeholder with meeting notes for agreement.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3257	Meeting - Virtual	22/08/2023	MEETING - VIRTUAL: Meeting with Australian Parents for Climate Action representatives to discuss the Preliminary Environmental Issues and Risk Assessment and to obtain feedback about potential for proposed activity to impact their functions, interests and activities.
2924	Email	15/08/2023	OUTGOING EMAIL: teams meeting link with proposed agenda.
2923	Email	15/08/2023	OUTGOING EMAIL: to stakeholder confirming meeting time and note that a Teams invitation will be sent shortly
2922	Email	15/08/2023	INCOMING EMAIL: from stakeholder with preferred meeting time
2913	Email	15/08/2023	OUTGOING EMAIL: to stakeholder suggesting meeting times for agreed date
2996	Email	15/08/2023	INCOMING EMAIL: from stakeholder confirming new meeting date
2995	Email	15/08/2023	OUTGOING EMAIL: to stakeholder re scheduling consultation meeting
2912	Email	11/08/2023	INCOMING EMAIL: from stakeholder accepting offer to have a meeting to discuss the drilling program further with suggested date
2718	Email	2/08/2023	OUTGOING EMAIL: to stakeholder re arranging an online meeting and notice that EP chapter release is slightly delayed

2699	Email	1/08/2023	INCOMING EMAIL: from stakeholder confirming receipt of information sheets

Organisation Id	**554**
Name of Organisation	King Island Fishing Tours
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Tourism operator in Environmental Planning Area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 554 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
819	Email	9/02/2023 14:42	Outgoing Email: sent to stakeholder regarding otway exploration drilling program environmental plan commencement. Included personalised letter and attached relevant information documents.
1551	Telephone call	21/02/2023 8:44	OUTGOING CALL: No answer. Left message.
2550	Telephone call	24/07/2023 14:56	OUTGOING CALL: No answer. Left message.
3139	Email	29/08/2023 11:41	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**556**
Name of Organisation	[redacted]
Identification Method	Desktop Research
Function, Interest, Activities	Small cruise operator around Port Fairy Victoria
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 556 - 2.Summary

Id	Event Type	Start Date	Summary
658	Email	20/03/2023 15:18	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
4349	Email	13/04/2023 16:34	OUTGOING EMAIL: to stakeholder with information re Community Information Sessions
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**557**
Name of Organisation	Reel Time Fishing Charters
Identification Method	Desktop Research
Function, Interest, Activities	Fishing charter operating around Melbourne and Portland waters.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 557 - 2.Summary

Id	Event Type	Start Date	Summary
669	Email	20/03/2023 16:32	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets
941	Email	13/04/2023 16:31	OUTGOING EMAIL: to stakeholders re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

Organisation Id	**558**
Name of Organisation	Port Fairy Surf
Identification Method	Desktop Research
Function, Interest, Activities	Surf, Dive and Hire Shop in Environmental Planning Area
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 558 - 2.Summary

Id	Event Type	Start Date	Summary
671	Email	20/03/2023 16:42	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets
913	Email	13/04/2023 16:20	OUTGOING EMAIL: to stakeholders with information re community information sessions
4492	Email	27/04/2023 10:09	OUTGOING EMAIL: to individual with Community Information Session details attached
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**559**
Name of Organisation	East West Dive and Salvage
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Underwater services provider operating within the Environmental Planning Area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 559 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
828	Email	9/02/2023 14:43	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1542	Telephone call	20/02/2023 13:55	OUTGOING CALL: To organisation to confirm receipt of initial correspondence.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**560**
Name of Organisation	Portland Scuba
Identification Method	Desktop Research
Function, Interest, Activities	Business has closed down since the end of March 2023.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Contact attempted, no response

Organisation ID 560 - 2.Summary

Id	Event Type	Start Date	Summary
601	Email	13/03/2023 12:12	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
914	Email	13/04/2023 16:20	OUTGOING EMAIL: to stakeholder with information about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
3102	Email	29/08/2023 11:06	OUTGOING EMAIL: to stakeholder with project update

Organisation Id	**561**
Name of Organisation	Port of Portland
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Deepwater logistic port located in Environmental Planning area.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 561 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
781	Email	9/02/2023 14:42	OUTGOING EMAIL with attachments re ConocoPhillips Australia Otway Exploration Drilling Program
1563	Telephone call	21/02/2023 11:55	OUTGOING CALL: To individual to confirm the receipt of initial correspondence.
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**562**
Name of Organisation	Professional Diving Services
Identification Method	Desktop Research
Function, Interest, Activities	Diving services within the waters of the Victorian coastline and have conducted offshore works from Portland to Lakes Entrance.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 562 - 2.Summary

Id	Event Type	Start Date	Summary
602	Email	13/03/2023 12:12	OUTGOING EMAIL to stakeholder with Notice and attached documents re proposed Otway Offshore Exploration Drillinng Program
915	Email	13/04/2023 16:20	OUTGOING EMAIL Re Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**563**
Name of Organisation	Regulatory Services CASA
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	The Civil Aviation Safety Authority is the Australian national authority for the regulation of civil aviation.
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Commonwealth Department or agency
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 563 - 2.Summary

Id	Event Type	Start Date	Summary
101	Email	25/11/2022 8:29	INCOMING EMAIL: Stakeholder mailbox has been confirmed decommissioned.
100	Email	25/11/2022 8:29	INCOMING EMAIL: Acknowledging email received.
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3314	Email	31/08/2023 19:56	INCOMING EMAIL: Auto reply
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**564**
Name of Organisation	NatraSol
Identification Method	Desktop Research
Function, Interest, Activities	Produces quality organic seaweed and fish products in North West Tasmania.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 564 - 2.Summary

Id	Event Type	Start Date	Summary
592	Email	13/03/2023 12:12	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**565**
Name of Organisation	KS Group
Identification Method	Community Meeting/ Public Outreach
Function, Interest, Activities	K&S' core business is in the management of complex supply chains where linehaul and local transport, export, wharf cartage, bulk transport and storage play key roles.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 565 - 2.Summary

Id	Event Type	Start Date	Summary
1089	Community Session	18/04/2023 8:32	Collaborative Community Information Session held in Portland Tuesday 18th April 12 - 2pm
1158	Campaign Email	11/05/2023 12:03	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**566**
Name of Organisation	Skydive 12 Apostles
Identification Method	Desktop Research
Function, Interest, Activities	Skydiving over the Victorian coast around Peterborough
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 566 - 2.Summary

Id	Event Type	Start Date	Summary
606	Email	13/03/2023 12:12	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake an exploration drilling program with letter and information sheets
919	Email	13/04/2023 16:22	OUTGOING EMAIL: to stakeholder with information regarding community information sessions
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1700	Email	16/06/2023 9:19	OUTGOING EMAIL: to stakeholder re second community information sessions with advertising flyer attached
1728	Campaign Email	16/06/2023 15:13	OUTGOING EMAIL: RP VIC Information Sessions Reminder: Relevant Person Information Sessions Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**567**
Name of Organisation	Southern Ocean Mariculture
Identification Method	Consultation Hub – Consultation Survey
Function, Interest, Activities	Aquaculture facility located on the Victorian Coastline
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 567 - 2.Summary

Id	Event Type	Start Date	Summary
1790	Social Pinpoint Complete Consultation Survey	21/06/2023 9:48	Individual completed Stakeholder Survey
1814	Telephone call	28/06/2023 11:39	Outgoing call to relevant person following up on previous request for consultation. No answer. Left a message requesting call back.
1817	Telephone call	28/06/2023 14:04	Outgoing call with relevant person. Discussed engagement approach and functions, interests and activities including consultation approach moving forward.
1955	Telephone call	30/06/2023 16:35	OUTGOING CALL: No answer. Left message
1957	SMS	30/06/2023 16:36	Text exchange regarding request to move meeting.
2008	Email	6/07/2023 9:15	OUTGOING EMAIL: to stakeholder with Meeting Notes for review - 5 July 2023
4340	Email	6/07/2023 9:43	INCOMING EMAIL: from stakeholder confirming Meeting Notes - 5 July 2023
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**568**
Name of Organisation	[redacted]
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	Commercial Dive Service providing underwater repair, demolition, salvage and recovery services.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 568 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
4337	Email	9/02/2023 15:53	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling project
1570	Telephone call	21/02/2023 13:42	OUTGOING CALL: To individual to confirm receipt of initial correspondence.
1586	Telephone call	22/02/2023 15:16	OUTGOING CALL: To organisation to discuss consultation.
1592	Telephone call	23/02/2023 8:16	OUTGOING CALL: No answer. Left message.
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**569**
Name of Organisation	Tasmanian Climate Collective
Identification Method	Consultation Hub – Consultation Survey
Function, Interest, Activities	A collection of Tasmanian climate action groups, environment groups and individuals that encourage, promote and initiate climate action in Tasmania through cooperation, influence and knowledge sharing..
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 569 - 2.Summary

Id	Event Type	Start Date	Summary
5115	Email	21/02/2024	OUTGOING EMAIL: Advised of administrative error in letter sent.
5095	Email	21/02/2024	OUTGOING EMAIL: Sent to individual responding to their public comment submission.
4968	Public Comment	17/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4271	Email	25/10/2023	OUTGOING EMAIL: sent to stakeholder regarding teams' response to objections and claims previously submitted. Attached letter detailing the responses.
4221	Email	23/10/2023	OUTGOING EMAIL: Email sent to stakeholder with close out letter responding to objections and claims raised.
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3823	Email	27/09/2023	OUTGOING EMAIL: to stakeholder with response to feedback/objections and claims
3469	Email	20/09/2023	INCOMING EMAIL: from stakeholder with objections and claims
3397	Email	13/09/2023	INCOMING EMAIL: from stakeholder confirming agreed meeting notes
3400	Email	13/09/2023	INCOMING EMAIL: from stakeholder confirming agreed meeting notes
3358	Email	13/09/2023	OUTGOING EMAIL: to stakeholder with amended meeting notes for agreement
3357	Email	11/09/2023	INCOMING EMAIL: from stakeholder requesting additional change to meeting notes
3356	Email	11/09/2023	INCOMING EMAIL: from stakeholder re transparency point in meeting notes
4336	Email	11/09/2023	OUTGOING EMAIL: to stakeholder with amended meeting notes
3278	Email	11/09/2023	INCOMING EMAIL: from stakeholder with comments re draft meeting notes
3401	Email	7/09/2023	OUTGOING EMAIL: to stakeholder with meeting notes for agreement.
3181	Campaign Email	31/08/2023	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3050	Campaign Email	24/08/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3257	Meeting - Virtual	22/08/2023	MEETING - VIRTUAL: Meeting with Australian Parents for Climate Action representatives to discuss the Preliminary Environmental Issues and Risk Assessment and to obtain feedback about potential for proposed activity to impact their functions, interests and activities.
2924	Email	15/08/2023	OUTGOING EMAIL: teams meeting link with proposed agenda.
2923	Email	15/08/2023	OUTGOING EMAIL: to stakeholder confirming meeting time and note that a Teams invitation will be sent shortly
2922	Email	15/08/2023	INCOMING EMAIL: from stakeholder with preferred meeting time
2913	Email	15/08/2023	OUTGOING EMAIL: to stakeholder suggesting meeting times for agreed date
2996	Email	15/08/2023	INCOMING EMAIL: from stakeholder confirming new meeting date
2995	Email	15/08/2023	OUTGOING EMAIL: to stakeholder re scheduling consultation meeting
2912	Email	11/08/2023	INCOMING EMAIL: from stakeholder accepting offer to have a meeting to discuss the drilling program further with suggested date
2718	Email	2/08/2023	OUTGOING EMAIL: to stakeholder re arranging an online meeting and notice that EP chapter release is slightly delayed
2699	Email	1/08/2023	INCOMING EMAIL: from stakeholder confirming receipt of information sheets
2625	Campaign Email	27/07/2023	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2193	Email	6/07/2023	OUTGOING EMAIL: to stakeholder with additional information sheets regarding environmental plan.
2190	Email	6/07/2023	OUTGOING EMAIL: to stakeholder with copy of preliminary impact and risk assessment and information sheets
2189	Telephone call	6/07/2023	OUTGOING CALL: To individual to discuss consultation moving forward.
1637	Campaign Email	8/06/2023	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
1158	Campaign Email	11/05/2023	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

888	Social Pinpoint Complete Consultation Survey	20/03/2023	Individual completed Stakeholder Survey
1079	Social Pinpoint Registered for Updates	18/03/2023	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP

Organisation Id	**570**
Name of Organisation	Tasmanian Ports Corporation
Identification Method	Consulted for Sequoia 3DMSS
Function, Interest, Activities	TasPorts is a state-owned company responsible for eleven Tasmanian ports and the Devonport Airport
Regulation Category	Section 25 (1) (a)
Subject Centred Category	Sate or Territory Department or agency
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 570 - 2.Summary

Id	Event Type	Start Date	Summary
103	Campaign Email	25/11/2022 8:30	OUTGOING EMAIL: Emailed advice about ConocoPhillips Australia's proposed Otway Exploration Drilling Program, including future consultation.
822	Duplicate Event	9/02/2023 14:42	NOTICE: ConocoPhillips Australia Otway Exploration Drilling Program
4334	Email	9/02/2023 15:46	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program. With letter and information sheets attached
1726	Email	9/02/2023 15:48	INCOMING EMAIL: from stakeholder with auto reply to with notice of preparation of an EP to undertake exploration drilling program. With letter and information sheets attached
1559	Telephone call	21/02/2023 10:54	OUTGOING CALL: Individual not available, left message with person who answered the call.
1560	Telephone call	21/02/2023 10:58	Outgoing call to relevant person, received updated email address information and promised to send an email with relevant information after the call.
50	Email	21/02/2023 11:12	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3419	Email	24/08/2023 14:30	INCOMING EMAIL: Received auto reply from individual
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**571**
Name of Organisation	Warrnambool Coastcare Landcare Network
Identification Method	Consultation Hub – Newsletter sign up
Function, Interest, Activities	Warrnambool Coastcare Landcare Network is a volunteer community organisation. It engages volunteers in activities that help improve Warrnambool's natural environment.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 571 - 2.Summary

Id	Event Type	Start Date	Summary
1675	Social Pinpoint Registered for Updates	10/06/2023 16:33	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
2690	Social Pinpoint Comment	1/08/2023 10:52	Formal response to seismic activity.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
3860	Email	3/10/2023 9:40	OUTGOING EMAIL: ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**572**
Name of Organisation	Warrnambool Diving and Firearms
Identification Method	Desktop Research
Function, Interest, Activities	sales and service of diving, firearms and archery.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 572 - 2.Summary

Id	Event Type	Start Date	Summary
600	Email	13/03/2023 12:12	OUTGOING EMAIL: to stakeholder with initial correspondence about the proposed Otway Offshore Exploration Drilling Program with letter and information sheets attached
912	Email	13/04/2023 16:20	OUTGOING EMAIL: to stakeholder about Community Information Sessions - ConocoPhillips Australia Otway Exploration Program.
996	Telephone call	17/04/2023 15:18	OUTGOING CALL: To individual to discuss consultation.
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**573**
Name of Organisation	Warrnambool Yacht Club
Identification Method	Desktop Research
Function, Interest, Activities	Yacht club operating within Victorian waters around Warrnambool.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Other marine users and community groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 573 - 2.Summary

Id	Event Type	Start Date	Summary
662	Email	20/03/2023 15:48	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program. With letter and information sheets attached
905	Email	13/04/2023 16:17	OUTGOING EMAIL: to stakeholder with information about community information sessions
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**574**
Name of Organisation	Victorian Recreational Fishing Peak Body (VR Fish)
Identification Method	Desktop Research
Function, Interest, Activities	Peak Body for Recreational Fishing in Victoria
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 574 - 2.Summary

Id	Event Type	Start Date	Summary
620	Email	13/03/2023 10:03	OUTGOING EMAIL: to stakeholder with notice of preparation of an EP to undertake exploration drilling program with letter and information sheets attached
1774	Email	13/03/2023 10:04	INCOMING EMAIL: Stakeholder auto-reply email confirmation
909	Email	13/04/2023 16:19	OUTGOING EMAIL: with information about community information sessions
4293	Email	13/04/2023 16:19	INCOMING EMAIL: from stakeholder with auto reply re Community Information Sessions
1205	Campaign Email	17/05/2023 8:01	OUTGOING EMAIL: Victorian Community Information Sessions Invitation: Community Information Session Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4294	Email	19/05/2023 7:52	INCOMING EMAIL: from stakeholder with auto reply to project update
3103	Email	29/08/2023 11:06	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**575**
Name of Organisation	Wood Mackenzie
Identification Method	Consultation Hub – Newsletter sign up
Function, Interest, Activities	Wood Mackenzie is the global insight business for renewables, energy and natural resources.
Regulation Category	Section 25 (1) (e)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 575 - 2.Summary

Id	Event Type	Start Date	Summary
1046	Social Pinpoint Webinar Registration	24/04/2023 16:10	Stakeholder registered for future webinars
2365	Social Pinpoint Registered for Updates	24/04/2023 16:10	Individual registered to receive updates
1221	Campaign Email	18/05/2023 13:46	OUTGOING EMAIL: May Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
4295	Email	18/05/2023 13:47	INCOMING EMAIL: from stakeholder with auto reply to webinar invitation
1927	Campaign Email	4/07/2023 11:33	OUTGOING EMAIL: Webinar details for upcoming online meeting sent.
2534	Campaign Email	24/07/2023 8:13	OUTGOING EMAIL: Reminder: July Webinar - Otway Exploration Drilling Program WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3361	Campaign Email	13/09/2023 14:03	OUTGOING EMAIL: September Webinar WEBINAR INVITATION: ConocoPhillips Australia Otway Exploration Drilling Program
3394	Email	13/09/2023 14:04	INCOMING EMAIL: Auto reply from recipient indicating out of office
3475	Campaign Email	20/09/2023 11:21	OUTGOING EMAIL: Reminder - September Webinar REMINDER: WEBINAR ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023 13:05	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023 12:58	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program

Organisation Id	**577**
Name of Organisation	WaterSure
Identification Method	Desktop Research
Function, Interest, Activities	Operator of the Victorian desalination plant.
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Offshore Operators, Titleholders, Offshore Infrastructure Proponent
Confidential	Permission to publish information provided
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 577 - 2.Summary

Id	Event Type	Start Date	Summary
2811	Email	9/08/2023 14:11	OUTGOING EMAIL: to relevant person with notification of proposed exploration drilling program with letter and information sheets attached
2900	Email	9/08/2023 15:39	INCOMING EMAIL: Stakeholder forward email to relevant stakeholder.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**578**
Name of Organisation	AMOG Consulting
Identification Method	Consultation Hub – Newsletter sign up
Function, Interest, Activities	AMOG is an established world leader in delivering optimal solutions and high-end advice to a broad range of complex engineering problems.Our expertise is employed across a number of industries including offshore energy, Defence, Mining, Transport, Renewable Energy & Civil Maritime industries. We combine the expertise of qualified, practiced and forward-thinking engineers with the power of our international network.
Regulation Category	Section 25 (1) (e)
Subject Centred Category	Business and Tourism Operators
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 578 - 2.Summary

Id	Event Type	Start Date	Summary
2671	Social Pinpoint Registered for Updates	28/07/2023 11:43	Stakeholder opted in to receive updates on the development of the Otway Exploration Drilling EP
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
4010	Email	19/09/2023 11:17	INCOMING EMAIL: Individual asking list of references used in chapter 6.7. Asking for access.
4011	Email	19/09/2023 13:30	OUTGOING EMAIL: Gave current draft EP reference list as requested by individual
3470	Email	19/09/2023 17:02	INCOMING EMAIL: Individual acknowledged draft EP reference list and has no feedback yet.
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4027	Email	3/10/2023 16:47	INCOMING EMAIL: Individuals have gave two comments on Chapter 6.7 of EP and provided table.
3893	Email	4/10/2023 9:10	OUTGOING EMAIL: Continued email chain regarding EP reference list stakeholder and team responses.
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4600	Email	3/11/2023 15:00	OUTGOING EMAIL: sent to stakeholder responding to previously raised objections and claims. Attached letter detailing teams' responses.
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation ID	**580**
Name of Organisation	Abalone Council Victoria
Function, Interest, Activities	Abalone Council Victoria is the peak body representing the wild harvest abalone sector in Victoria.
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 580 - 2.Summary

Id	Event Type	Start Date	Summary
4286	Email	22/09/2023	INCOMING EMAIL: stakeholder confirming they meet relevant person requirements and requesting EP chapters for feedback
3784	Telephone call	22/09/2023	OUTGOING CALL: No answer. Unable to leave a message.
4291	Email	22/09/2023	OUTGOING EMAIL: to stakeholder with EP chapters and offer for meeting
4287	Email	25/09/2023	INCOMING EMAIL: from stakeholder with concerns related to EP chapters and acceptance of meeting offer
4288	Email	25/09/2023	OUTGOING EMAIL: to stakeholder with meeting times
4289	Email	28/09/2023	INCOMING EMAIL: from stakeholder confirming meeting time
3847	Email	28/09/2023	OUTGOING EMAIL: to stakeholder confirming meeting invitation will be sent shortly
3889	Email	28/09/2023	INCOMING EMAIL: from stakeholder acknowledging upcoming email with meeting invitation
3859	Campaign Email	3/10/2023	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4290	Email	6/10/2023	OUTGOING EMAIL: to stakeholder with draft meeting notes and slides
4131	Meeting - Virtual	6/10/2023	Meeting with Abalone Council Victoria and Western Abalone Divers Association to review draft Environment Plan content.
4269	Email	24/10/2023	OUTGOING EMAIL: sent to stakeholder with response to previously raised objections and claims. Included attached letter with formal response.
4392	Campaign Email	27/10/2023	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4750	Campaign Email	14/11/2023	Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4830	Campaign Email	15/11/2023	REMINDER - Webinar Invitation: Otway Exploration Drilling Program Invitation: Webinar 4 - Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program
5025	Public Comment	18/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
5090	Email	21/02/2024	OUTGOING EMAIL: Sent to individual responding to their public comment submission.
5125	Email	21/02/2024	OUTGOING EMAIL: Advised of administrative error in letter sent.

Organisation ID	**582**
Name of Organisation	Yambah Aquaculture
Function, Interest, Activities	Aquaculture facility located on the Victorian coastline.
Identification Method	Referred by another stakeholder/ relevant person
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fisher and aquaculture facilities
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 582 - 2.Summary

Id	Event Type	Start Date	Summary
2776	Email	8/08/2023 10:11	OUTGOING EMAIL: Team corresponding to new stakeholder with details of proposed drilling project. With letter and information sheets attached
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**583**
Name of Organisation	[redacted]
Function, Interest, Activities	Seafood business operator within the Environmental Planning Area
Identification Method	Desktop Research
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 583 - 2.Summary

Id	Event Type	Start Date	Summary
4285	Email	9/02/2023 15:38	OUTGOING EMAIL: to relevant person with notification of preparation of EP to undertake exploration drilling program with letter and information sheets attached
1579	Telephone call	21/02/2023 14:29	OUTGOING TELEPHONE CALL to org receptionist
1157	Campaign Email	11/05/2023 12:14	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1414	Campaign Email	19/05/2023 7:52	OUTGOING EMAIL: Emailed PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
1637	Campaign Email	8/06/2023 10:20	OUTGOING EMAIL: PROJECT UPDATE- June 2024 : ConocoPhillips Australia Otway Exploration Drilling Program
2625	Campaign Email	27/07/2023 16:06	OUTGOING EMAIL: PROJECT UPDATE including notification of the extension of consultation based on feedback from the consultation process with relevant persons.
3050	Campaign Email	24/08/2023 14:29	OUTGOING EMAIL: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
3181	Campaign Email	31/08/2023 19:55	OUTGOING EMAIL: Notification of Draft EP Chapters available for consultation NOTIFICATION: ConocoPhillips Australia Otway Exploration Drilling Program Draft EP Chapters Available for Consultation
3859	Campaign Email	3/10/2023 9:00	OUTGOING EMAIL: Consultation Pause Notification NOTIFICATION: Consultation Pause - ConocoPhillips Australia Otway Exploration Drilling Program
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**588**
Name of Organisation	Western Abalone Divers Association
Function, Interest, Activities	Representing the functions, interests and activities of commercial abalone divers (members)
Identification Method	Referred by another stakeholder/ relevant person
Regulation Category	Section 25 (1) (d)
Subject Centred Category	Commercial Fishing Representative Body, Co-operative or Fish Processor
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 588 - 2.Summary

Id	Event Type	Start Date	Summary
4288	Email	25/09/2023 15:26	OUTGOING EMAIL: to stakeholder with meeting times
4289	Email	28/09/2023 10:00	INCOMING EMAIL: from stakeholder confirming meeting time
3847	Email	28/09/2023 11:35	OUTGOING EMAIL: to stakeholder confirming meeting invitation will be sent shortly
3889	Email	28/09/2023 11:57	INCOMING EMAIL: from stakeholder acknowledging upcoming email with meeting invitation
4290	Email	6/10/2023 8:50	OUTGOING EMAIL: to stakeholder with draft meeting notes and slides
4131	Meeting - Virtual	6/10/2023 10:00	Meeting with Abalone Council Victoria and Western Abalone Divers Association to review draft Environment Plan content.
4392	Campaign Email	27/10/2023 11:58	OUTGOING EMAIL: Pre-submission communications UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
4846	Campaign Email	17/11/2023 15:51	NOTICE OF PUBLIC COMMENT PERIOD: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan
4879	Campaign Email	1/12/2023 13:51	NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program NOTIFICATION: Environment Plan Summary - ConocoPhillips Australia Otway Exploration Drilling Program

Organisation Id	**644**
Name of Organisation	Fight for the Bight Port Fairy
Function, Interest, Activities	Fight for the Bight Port Fairy is an environment focused community group from Port Fairy, which is within the environmental planning area.
Identification Method	Public Comment
Regulation Category	Section 25 (1) (d)
Subject Centred Category	eNGO's and Environment Focused Community Groups
Confidential	No guidance given - publish
Relevant person information	Methodology Met, information provided per consultation approach

Organisation ID 644 - Consultation Summary

Id	Event Type	Start Date	Summary
5082	Email	19/02/2024	INCOMING EMAIL: from individual saying they would appreciate a meeting to discuss their submission.
5072	Email	19/02/2024	OUTGOING EMAIL: to individual with follow up to initial request to discuss their submission.
5056	Email	8/02/2024	OUTGOING EMAIL: to relevant person thanking them for their submission and requesting a meeting time to discuss it.
4946	Public Comment	18/12/2023	Relevant Person submitted a public comment regarding the draft environmental plan for the Otway Exploration Drilling Program.
1180	Community Session	2/05/2023	Community Information session held at Port Fairy, Tuesday 2 May, 6-8pm. Collaborative session held with Regia MSS.
1087	Community Session	17/04/2023	Community Information Session held at Warrnambool, Monday 17 April, 6-8pm. Collaborative Session held with Regia 3D MSS.

ConocoPhillips

C2: Objections or claims under section 24

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
2	23, 3348	ID11:South East Trawl Fishing Industry Association (SETFIA)	13/02/2023 7:49	Request	Relevant person requested that ConocoPhillips Australia consider a text message campaign prior to and during drilling campaign with suggestions on frequency and content focus areas.	High	ConocoPhillips Australia reviewed CM03: Marine and Coastal Users Consultation and Communication Plan and will provide periodic updates to relevant persons in line with it, and additional information included in the implementation strategy on text messages..	Review existing control/s: CM03: Marine and Coastal Users Consultation and Communication Plan	ConocoPhillips to enter fee-for-service arrangement with SETFIA to send SMSs to the western distribution list with details of where and when seabed survey, anchor pre-lay and drilling activities are scheduled to occur and regular updates on progress and forecast plans, and what controls (cautionary and exclusion zones) will be in place at set intervals: - 30 days prior to scheduled mobilisation for each activity - 2 weeks prior to mobilisation for each activity - 1 week prior to scheduled mobilisation for each activity - At commencement of each activity - Periodically during each activity CM03: Marine and Coastal Users Consultation and Communication Plan
6	509, 2724	ID10:Marine and Safety Tasmania (MAST)	15/02/2023 13:56	Request	Relevant persons requested to be kept informed of when activities will occur to facilitate the issuance of an activity related NtM which may assist in informing fishers who are in the relevant area.	High	ConocoPhillips Australia incorporated this request into CM03: Marine and Coastal Users Consultation and Communication Plan to minimise impacts to other marine users.	Include as control measure for seabed survey, anchor pre-lay and drilling activities to minimise impacts to other marine users and to minimise the risk of vessel collision. CM03: Marine and Coastal Users Consultation and Communication Plan	"Requirement for ConocoPhillips Australia (or Seabed survey vessel, MODU and support vessel contractors), to contact Marine and Safety Tasmania so they can issue a generic notice to mariners relating to the activity, added to 'Communication Plan' for each activity (seabed survey, anchor-pre-lay and drilling operations), as: - Notification 30 days prior to mobilisation - On mobilisation - 48 hours prior to relocation between areas - On demobilisation"
7	43, 3352	ID9:University of Tasmania (UTAS)	20/02/2023 14:10	Request	Relevant person requested that ConocoPhillips Australia consider additional data sampling whilst vessel is in the region for seabed survey.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and will ensure that the seabed survey contract requires the collection of representative sediment samples to validate the geophysical survey data, with storage and transport onshore for benthic analysis.	ConocoPhillips Australia has considered additional data sampling whilst vessel is in the region for seabed survey (grab sediment sampling and will ensure the seabed survey contract requires the collection of representative sediment samples from the grab samples collected to validate the geophysical survey data, with storage and transport onshore for benthic analysis (Event ID: 43, Reg16b ID: 7).	ConocoPhillips Australia considers the cost and effort to retain samples collected during the seabed survey, with storage and transport for onshore analysis, to be reasonable and will include this in the procurement process for the seabed survey. Collect benthic samples during seabed surveys CM11: Procurement Vetting Process (with onshore processing)

Please note, this does not include objections and claims raised by relevant persons who opted to keep their information confidential.

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
8	484, 2602	ID8:Australian Maritime Safety Authority (AMSA)	21/02/2023 16:59	Request	Relevant person requested that AMSA's Rescue Centre is notified 24-48 hours before operations commence.	High	ConocoPhillips Australia reviewed CM03: Marine and Coastal Users Consultation and Communication Plan and will provide periodic updates to relevant persons in line with it. Specifically, ConocoPhillips Australia will be required to contact AMSA's Rescue Centre prior to seabed survey, anchor pre-lay and drilling activities.	Include as control measure for seabed survey, anchor pre-lay and drilling activities to minimise impacts to other marine users and to minimise the risk of vessel collision. CM03: Marine and Coastal Users Consultation and Communication Plan	Requirement for ConocoPhillips Australia (or Seabed survey vessel, MODU and support vessel contractors), to contact AMSA's Rescue Centre (ARC) through rccaus@amsa.gov.au (Phone: 1800 641 792 or +61 2 6230 6811) for promulgation of radio-navigation warnings and provide vessel details (including name, callsign and Maritime Mobile Service Identity (MMSI)), satellite communications details (including INMARSAT-C and satellite telephone), area of operation, and requested clearance from other vessels when operations start and end. when operations start and end, added to 'Communication Plan' for each activity (seabed survey, anchor-pre-lay and drilling operations), as - Notification 30 days prior to mobilisation - On mobilisation - 48 hours prior to commencement of operations - 48 hours prior to relocation between areas - On demobilisation
9	2602, 484	ID8:Australian Maritime Safety Authority (AMSA)	21/02/2023 17:00	Request	Relevant person stated that vessel details, satellite communications details, area of operation and requested clearance from other vessels will need to be advised when operations start and end.	High	ConocoPhillips Australia reviewed CM03: Marine and Coastal Users Consultation and Communication Plan and will provide periodic updates to relevant persons in line with it. Specifically, ConocoPhillips Australia will be required to contact AMSA's Rescue Centre prior to seabed survey, anchor pre-lay and drilling activities.	Include as control measure for seabed survey, anchor pre-lay and drilling activities to minimise impacts to other marine users and to minimise the risk of vessel collision. CM03: Marine and Coastal Users Consultation and Communication Plan	Requirement for ConocoPhillips Australia (or Seabed survey vessel, MODU and support vessel contractors), to contact AMSA's Rescue Centre (ARC) through rccaus@amsa.gov.au (Phone: 1800 641 792 or +61 2 6230 6811) for promulgation of radio-navigation warnings and provide vessel details (including name, callsign and Maritime Mobile Service Identity (MMSI)), satellite communications details (including INMARSAT-C and satellite telephone), area of operation, and requested clearance from other vessels when operations start and end. when operations start and end, added to 'Communication Plan' for each activity (seabed survey, anchor-pre-lay and drilling operations), as - Notification 30 days prior to mobilisation - On mobilisation - 48 hours prior to commencement of operations - 48 hours prior to relocation between areas - On demobilisation

Please note, this does not include objections and claims raised by relevant persons who opted to keep their information confidential.

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
10	484, 2602	ID8:Australian Maritime Safety Authority (AMSA)	21/02/2023 17:01	Request	Relevant person requested that the Australian Hydrographic Office is contacted no less that four weeks before operations commence to allow enough time for notice to mariners to be declared.	High	ConocoPhillips Australia reviewed CM03: Marine and Coastal Users Consultation and Communication Plan and will provide periodic updates to relevant persons in line with it. Specifically, ConocoPhillips Australia will be required to contact AHO prior to seabed survey, anchor pre-lay and drilling activities.	Include as control measure for seabed survey, anchor pre-lay and drilling activities to minimise impacts to other marine users and to minimise the risk of vessel collision. CM03: Marine and Coastal Users Consultation and Communication Plan	Requirement for ConocoPhillips Australia, or contractor, to contact AHO via datacentre@hydro.gov.au added to 'Communication Plan' for exploration program, as 'Notification 30 days prior to mobilisation for: - Seabed survey - Anchor pre-lay - Drilling operations'
11	3371, 536	ID471:[redacted]	2/03/2023 15:45	Claim	Relevant person stated that the activity will cause the displacement of fishers and that light produce by the activity will attract squid away from fishing locations resulting in a loss of catch.	High	ConocoPhillips Australia reviewed the EP, specifically Section 6.4.5.3 which assesses light impacts on ecological species and adapted to include an assessment of impacts to squid.	EP section 6.4.5.3 updated to include assessment of impacts to squid. The range to which squid species are likely to be attracted to the artificial light will be within the immediate vicinity of the MODU and support vessels. In addition, drilling activities will be of a short duration (90 days per well), and therefore no long-term effects on local squid fisheries are expected.	EP section 6.4.5.3 updated to include assessment of impacts to squid.
12	536, 3371	ID471:[redacted]	2/03/2023 15:52	Request	Relevant person requested compensation on the basis that the activity will result in exclusion zones that displace fishing.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol) for the exploration program. This includes a commitment to working with industry, relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.	Review existing control/s: CM04: Commercial Marine Operators Adjustment Protocol.	CM04: Commercial Marine Operators Adjustment Protocol.
13	3368, 582	ID5:Colac Otway Shire Council	3/03/2023 10:37	Claim	Relevant person provided feedback regarding the impact an offshore oil and gas facility would have on the pristine tourism value of the Great Ocean Walk.	High	ConocoPhillips Australia conducted a thorough review of controls measures to ensure impacts to Great Ocean based tourism were adequately considered. It was assessed that as the proposed activity is short-term there will be no long-term impacts to aesthetic values.	The proposed activity is short-term with no long-term impacts to aesthetic values. Existing permanent gas infrastructure already exists in closer proximity to the great ocean walk. Existing controls were reviewed to confirm mitigation of impacts including: CM01: Marine Assurance CM02: Vessel and MODU Operating Procedures CM07: Light Management Plan CM10: Well Testing Program	CM01: Marine Assurance CM02: Vessel and MODU Operating Procedures CM07: Light Management Plan CM10: Well Testing Program
14	3368, 582	ID5:Colac Otway Shire Council	3/03/2023 11:07	Claim	Relevant person requested compensation on the basis that the activity will result in long-term impacts to fisheries like the SRL.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol) for the exploration program. This includes a commitment to working with industry, relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.	ConocoPhillips Australia is aware that the Otway Exploration Drilling Program may interfere with the operation of Commonwealth and State fisheries and result in temporary displacement. We believe we can sustainably coexist with the activities and livelihood of other marine and coastal users and are committed to having a commercial fishing adjustment protocol in place prior to the commencement of the program to address economic impact as a result of displacement. CM04: Commercial Marine Operators Adjustment Protocol	CM04: Commercial Marine Operators Adjustment Protocol

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
15	2729, 649	ID110:Surf Coast Shire Council	16/03/2023 9:10	Objection	Relevant person stated that on 27 July 2021 the Council passed a motion opposing all new oil and gas exploration, development and seismic testing in the Otway Basin which remains the Council's position and has been communicated with relevant persons and bodies.	Low	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that that no alterations were deemed necessary as no objections to the content of the EP were raised.	No change to EP content	Inform relevant persons of NOPSEMAs guidance.
16	2729, 649	ID110:Surf Coast Shire Council	16/03/2023 9:13	Claim	Relevant person expressed concern regarding the impact oil and gas exploration has on all receptors, including its contribution to climate change.	High	ConocoPhillips Australia provided overview of assessment process.	ConocoPhillips Australia is currently assessing the impacts and risks associated with the proposed exploration program on the environment, including (amongst other things) people and communities, the heritage value of places, and their social and cultural features, which may be affected by the proposed exploration program. Consultation will better inform our understanding of the existing environment and improve our ability to minimise environmental impacts and risks. The Environment Plan must demonstrate that the proposed exploration program can be carried out in a manner that is consistent with the principles of ecologically sustainable development (ESD), set out in the Environment Protection and Biodiversity Conservation Act 1999; and that the environmental impacts and risks of the activity will be reduced as low as reasonably practicable (ALARP) and will be of an acceptable level. Consultation is critical to achieving outcomes that are consistent with the principles of ESD, and ensuring that environmental impacts and risks are reduced to ALARP and acceptable levels.	ConocoPhillips Australia will complete the assessment of impacts and risks associated with the proposed exploration program on the environment, including (amongst other things) people and communities, the heritage value of places, and their social and cultural features, which may be affected by the proposed exploration program. We will communicate preliminary and detailed impact and risk assessments to inform consultation. We will work with relevant persons to identify mitigation and management measures and demonstrate that the proposed exploration program can be carried out in a manner that is consistent with the principles of ecologically sustainable development (ESD, set out in the Environment Protection and Biodiversity Conservation Act 1999; and that the environmental impacts and risks of the activity will be reduced as low as reasonably practicable (ALARP) and will be of an acceptable level.
17	720, 2727	ID528:Australian Oceanographic Services Pty Ltd	3/03/2023 9:36	Claim	Relevant person stated that since drilling sites are not shown interactions can not currently be determined.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.	We will not have specific drilling locations prior to EP submission. We are applying a precautionary approach by requesting feedback in relation to potential interactions over the larger operational areas, and the broader Environmental Planning Area, to ensure that we address any potential concerns. We recognize that this may result in an overestimation of impacts and risks that are specific to the relevant persons functions, interests and activities. Updates made to section 1.4 of EP.	Updates made to section 1.4 of EP.
18	1069, 3366	ID595:[redacted]	19/04/2023 10:15	Objection	Relevant person stated that they formally oppose further exploration of the marine environment.	Low	ConocoPhillips Australia requested claims or objections specific to the proposed activity.	No change to EP content	NIL
21	1076, 2725	ID523:Otways Climate Emergency Action Network (OCEAN)	15/04/2023 12:14	Claim	Relevant person queried whether there will be additional consultation as they are away for the proposed meetings. Relevant person provided feedback regarding the time frame for the notice of meetings and how they have been advertised.	High	ConocoPhillips Australia provided notifications for future consultation events.	No change to EP content.	Nil

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
25	2726, 1141	ID550:Salty Dog Fishing Charters	3/05/2023 9:52	Claim	Relevant person provided feedback that their tourism based (fishing charter) business will be impacted by the seismic testing and drilling operations in the northern half of VICP/79.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and confirmed the acknowledgement (section 4.75) and assessment (section 6.2.4.1) of Victorian tourism operators in the EP. Further, ConocoPhillips Australia has included information provided in section 6.6.7.2 of the EP.	Information on tourism including the operation of fishing charters along the Victorian west coast was confirmed to be present in section 4.7.5 and section 6.2.4.1 of the draft EP. Information was included in section 6.6.7.2 of the EP: Popper et al (2014) found most fish species are expected to exhibit avoidance behaviours to sound emissions.	Nil
26	574, 2657	ID13:King Island Marine Research	8/03/2023 12:06	Claim	Relevant person provided feedback regarding the proximity of the proposed drilling activity to their lobster hatchery (~8 km) posing a risk to their business.	Low	ConocoPhillips Australia provided a map and clarification that the closest distance is 27 km, and updated Table 4-39 Tasmanian Southern Rock Lobster Fishery.	Table 4-39 Tasmanian Southern Rock Lobster Fishery	Information
27	574, 2657	ID13:King Island Marine Research	3/03/2023 12:08	Claim	Relevant person provided feedback regarding the impact activities may have to the purity of water which will subsequently impact their business.	High	ConocoPhillips Australia provided an overview of the impact and risk assessment process regarding how activities must be carried out in a manner that reduces the environmental impacts and risks associated with them to as low as reasonably practicable (ALARP), while also ensuring that any remaining environmental impacts and risks are at an acceptable level, and updated Table 4-39 Tasmanian Southern Rock Lobster Fishery.	Table 4-39 Tasmanian Southern Rock Lobster Fishery	Information
28	574, 2657	ID13:King Island Marine Research	3/03/2023 12:09	Claim	Relevant person claimed that since the seismic survey they have noticed adverse changes to the aquaculture surrounding King Island. Relevant person provided feedback that increased drilling may cause further harm to the fragile ecosystem and contribute to climate change.	Low	ConocoPhillips Australia advised they continue to engage with peak fisheries associations and universities which indicated increasing catch rates within the area and a review of catch data showed that catch in tonnes appears to have remained steady since 2008 for both the Tasmanian and Victorian fishing blocks.	No changes to EP content.	Nil
29	2441, 574, 2657	ID13:King Island Marine Research	3/03/2023 12:10	Claim	Relevant person provided feedback regarding the potential impacts (i.e. mortality, displacement) of the proposed activity to the Southern Rock Lobster which is relied on for their commercial viability.	High	ConocoPhillips Australia provided information sheets relevant to the proposed activity including the assessment of impacts to commercial fishers and updated Table 4-39 Tasmanian Southern Rock Lobster Fishery.	Table 4-39 Tasmanian Southern Rock Lobster Fishery	Information
30	574, 2657	ID13:King Island Marine Research	3/03/2023 12:11	Request	Relevant person requested that they are provided with all environmental impact sections including studies associated with the marine environment, specifically around King Island.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that that no alterations were deemed necessary as no objections to the content of the EP were raised.	No change to EP content	Nil
36	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:05	Statement	Relevant person stated that there is international consensus that anthropogenic underwater noise is a pervasive yet relatively transient form of pollution.	High	ConocoPhillips Australia acknowledges feedback provided by the relevant person and reviewed the assessment of underwater sound impacts on sensitive receptors and reflected feedback.	Noted: The Environment Plan includes an assessment if underwater sound impacts, including injury and behavioural disturbance, on sensitive receptors.	Nil
37	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:09	Statement	Relevant person stated that underwater acoustics can pose a risk to marine mammals in the vicinity of operations (i.e. hearing impairment, behavioural changes, stress responses, barotrauma)	High	ConocoPhillips Australia acknowledges feedback provided by the relevant person and reviewed the assessment of underwater sound impacts on sensitive receptors and reflected feedback.	Noted: The Environment Plan includes an assessment if underwater sound impacts, including injury and behavioural disturbance, on sensitive receptors.	Nil

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
38	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:11	Statement	Relevant person stated that as multiple cetacean species utilise the area it is difficult to identify a time period where activities can occur with minimal impact.	High	ConocoPhillips Australia concurred with this assessment and updated section 6.6.7.1 to reflect this feedback.	6.6.7.1 Ecological Receptors	None
39	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:12	Statement	Relevant person stated that the proposal lacks specific information about the frequency and noise values of the proposed activities, but suggests that the equipment planned for seabed surveys may have a lower impact on marine organisms compared to seismic systems.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and determined that no alterations were deemed necessary as noise modelling and impact assessment has been conducted on the technique that is considered to represent the largest acoustic source.	Modelling for a range of activities, including sub-bottom profiling (which is considered to represent the largest acoustic source and are therefore the most environmentally impactive for this activity) has been conducted and will be used to complete the assessment of impacts from seabed surveys.	Nil
40	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:12	Request	Relevant person stated that utilising dynamic positioning is likely to be the nosiest activity and suggested that the EP should detail how any potential disturbance to marine mammals from this activity will be mitigated.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and committed to the development and implementation of a marine mammal adaptive management procedure to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. This will be used to inform CM08: Whale Management Plan.	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08:Whale Management Plan.	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan
41	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:19	Request	Relevant person stated that consideration needs to be given to cetacean species with BIAs (southern right whale, pygmy blue whale, dwarf minke whale and humpback whale) within the exploration permits and surrounding areas.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and committed to the development and implementation of a marine mammal adaptive management procedure to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. This will be used to inform CM08: Whale Management Plan. Further, ConocoPhillips Australia incorporated additional information in EP section 4.6.9, 6.6.7 and 6.7.6 on the dwarf minke whale to fill any previous gaps.	"ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Whale Management Plan. Additional information was included in EP sections 4.6.9, 6.6.7 and 6.7.6 on the dwarf minke whale. "	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan
42	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:20	Statement	Relevant person emphasised the importance of western Victorian coastline to the southern right whale breeding population and suggested that individuals may migrate through the western Bass Strait, including the proposed exploitation areas.	High	"ConocoPhillips Australia reviewed feedback provided by relevant person and committed to the development and implementation of a marine mammal adaptive management procedure to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Whale Management Plan. Further, Section 4.6.9.2 has been updated to reflect information provided."	Text updated in Section 4.6.9.2 to reflect this information. ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Whale Management Plan	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan
43	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:21	Statement	Relevant person stated that VIC/P79 and T/49P overlap with the high use foraging area for pygmy blue whales in the Bonney Upwelling System of Western Victoria.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and committed to the development and implementation of a marine mammal adaptive management procedure to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Whale Management Plan.	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan

Please note, this does not include objections and claims raised by relevant persons who opted to keep their information confidential.

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
44	995, 3241, 4145	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:22	Statement	Relevant person stated that the Bass Strait is a migratory route for the southern right whale, humpback whale and dwarf minke whale.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and committed to the development and implementation of a marine mammal adaptive management procedure to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Whale Management Plan.	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan
45	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:23	Statement	Relevant person referenced a diverse cetacean stranding record for King Island and NW Tasmania, stating that it is fair to assumption the proposed exploration areas could be traversed by many cetacean species at any time of year.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and determined that no changes were deemed necessary as the EP has assessed impacts and risks to a range of cetacean species, including lowand high frequency cetaceans and those with biologically important areas and behaviours. The level of detail provided in the EP is commensurate to the significance and uncertainty associated with impacts and risks.	The Environment Plan includes an assessment of impacts and risks to a range of cetacean species, including low and high frequency cetaceans and those with biologically important areas and behaviours. The level of detail provided in the Environment Plan is commensurate to the significance and uncertainty associated with impacts and risks.	None
46	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:24	Statement	Relevant person recommended that marine mammal monitoring and mitigation actions and procedures should be implemented, similar to those outlined in EPBCA Policy 2.1 and the Underwater Piling Noise Guidelines.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and committed to the development and implementation of a marine mammal adaptive management procedure to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Whale Management Plan.	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan	ConocoPhillips Australia will develop and implement a marine mammal adaptive management procedure (MMAMP) to ensure that impacts to marine mammals are reduced to ALARP and acceptable levels. CM08: Marine Mammal Adaptive Management Plan
47	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:24	Request	Relevant person requested that the occurrence of cetaceans, pinnipeds, turtles, and/or penguins within T/49P is reported within 90 days. Further, that those within 500 m of the drilling or survey activity are reported within 24 hours.	High	ConocoPhillips Australia has reviewed feedback provided by relevant person and updated the Implementation Strategy (Table 10-8 and 10-10) to include the provision of marine mammal observations within T/49P to NRE-Tas.	The provision of marine fauna observations within T/49P to NRE-Tas is included in Tables 10-8 and 10-10 of the Implementation Strategy.	Updated Implementation Strategy - Tables 10-8 and 10-10.
48	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:25	Request	Relevant person recommended that surveys are conducted to collect baseline information on species presence prior to seabed surveys and exploration drilling ; and that passive acoustic mooring technology may provide a cost-effective and robust option for establishing the occurrence of cetaceans and pinnipeds.	High	ConocoPhillips Australia confirmed that information collected from aerial surveys was used to inform the development of the EP, and that consideration of passive acoustic monitoring was included in the ALARP assessment. CM08: Whale Management Plan	"Noted: Information from aerial surveys is being used to inform the Environment Plan. Consideration of passive acoustic monitoring will be included in the ALARP assessment." CM08: Marine Mammal Adaptive Management Plan	Information
49	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:26	Request	Relevant person stated that they are aware that ConocoPhillips Australia has conducted monthly aerial marine mammal surveys in the Otway Basin in 2021 and 2022-23 and recommends that they surveys are used to inform the development of the EP.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and confirmed that information collected from aerial surveys is being used to inform the development of the EP.	Noted: Information from aerial surveys is being used to inform the Environment Plan.	Information

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
50	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:27	Claim	Relevant person stated that indirect impacts for other top predators (i.e. fur seals) which feed on pelagic fish and cephalopods during the spring/summer/early autumn which is an energetically important breeding period.	Low	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations to the EP were deemed necessary as there are no biologically important areas or behaviours identified for Otariid species within the most conservative area (EMBA) that may be affected by sound resulting in behavioural disturbance.	No changes to EP content	None
51	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:28	Claim	Relevant person recommended that the impact of lighting on seabird species in line with the National Light Pollution Guidelines is considered in the proposal.	High	ConocoPhillips Australia reviewed relevant impact assessments (specifically light and flaring emissions assessments) to ensure that impacts to seabird species (particularly during the breeding season) were adequately assessed. Further, accepted mitigation measures relevant to these impacts are within CM02: Vessel and MODU Operating Procedures and CM07: Light Management Plan.	The Environment Plan includes an assessment of impacts to seabirds prey species associated with routine lighting and flaring light emissions, and fish and invertebrates (prey species) associated with continuous and impulsive underwater sound, where relevant. Depending on the final drilling locations, light associated with short-term flaring has the potential to affect breeding BIAs for three species (Short-tailed Shearwater, Black-faced Cormorant and Little Penguin). The impact from flaring will only be intermittent and temporary (approximately 120 hours per well) and is therefore not expected to interrupt breeding behaviours or cause impact at a population level. Given the large areas typically covered by foraging individuals, and the transient nature of the species, light impacts from flaring are not expected to cause significant impacts to foraging behaviours. Continuous and impulsive underwater sound impact assessments predict no injury and only localised, temporary behavioural disturbance of fish and invertebrate prey species during seabed surveys and drilling operations. CM02: Vessel and MODU Operating	"ConocoPhillips Australia will develop and implement a Seabird Management Plan as per the National Light Pollution Guidelines (CoA 2020b) for the activity. Once safety navigational lighting requirements are met (as per vessel class), the Management Plan will detail additional mitigations to manage light based on the information in the Seabird Light Mitigation Toolbox and at a minimum will implement: • Screens, blinds or window tinting on windows to contain light inside the rig and vessels. • Outdoor/deck lights when not necessary for human safety or navigation will be turned off. • Lights will be directed onto work areas. • Program for handling grounded birds. • Reporting requirements." CM02: Vessel and MODU Operating Procedures CM07: Light Management Plan

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
52	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:29	Claim	Relevant person recommended that indirect impacts of prey disturbance should be considered for seabirds, particularly during energetically important breeding seasons.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and subsequently reviewed relevant impact assessments (specifically non-impulsive and impulsive noise emission assessments) to ensure that impacts to seabird prey species (fish and invertebrates) were adequately assessed.	The Environment Plan includes an assessment of impacts to seabirds prey species associated with routine lighting and flaring light emissions, and fish and invertebrates (prey species) associated with continuous and impulsive underwater sound, where relevant. Depending on the final drilling locations, light associated with short-term flaring has the potential to affect breeding BIAs for three species (Short-tailed Shearwater, Black-faced Cormorant and Little Penguin). The impact from flaring will only be intermittent and temporary (approximately 120 hours per well) and is therefore not expected to interrupt breeding behaviours or cause impact at a population level. Given the large areas typically covered by foraging individuals, and the transient nature of the species, light impacts from flaring are not expected to cause significant impacts to foraging behaviours. Continuous and impulsive underwater sound impact assessments predict no injury and only localised, temporary behavioural disturbance of fish and invertebrate prey species during seabed surveys and drilling operations.	Information
53	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:30	Claim	Relevant person stated that the shy albatross, short-tailed shearwater and little penguin are present on off the west coast of Tasmania. Relevant person suggested that acoustic disturbance on these species is considered and that the avoidance of key foraging habitat is avoided during the breeding season.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and updated section 6.6.7 and 6.7.7 to include an assessment of acoustic impacts to bird species which was previously not considered.	Include assessment of acoustic impacts to bird species in Environment Plan (currently not considered). See sections 6.6.7 and 6.7.7.	Included an assessment of acoustic impacts to bird species in the Environment Plan, section 6.6.7.1 Ecological Receptors, Birds; and section 6.7.6.1 Ecological Receptors, Birds (previously not considered).
54	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:31	Request	Relevant person informed that the harvesting of short-tailed shearwaters is a cultural, non-commercial, and commercial activity (mutton birding), particularly for the Tasmanian Aboriginal Community, allowed for in reserves (except Nature Reserves) and private land. Relevant person suggested consulting mutton birding stakeholders regarding potential risks and mitigation options.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and has since included information on mutton birding in Section 4.6.7.2 of the EP.	Updated section 4.6.7.2 to include information provided on mutton birding.	Information
55	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:33	Request	Relevant person detailed a list of land tenures, specifically in relation to Tasmania, that should be considered under the EP.	High	ConocoPhillips Australia updated Chapter 4 (Existing Environment) to include the land tenures values and sensitivities. Further, ConocoPhillips Australia has carried these through the risk assessment chapters for Loss of Well Control and Marine Diesel Oil, where relevant to the environment that may be affected by these worst-case credible scenario.	ConocoPhillips Australia has updated the description of the existing environment to include the identified values and sensitivities and has carried these through the risk assessment chapters for Loss of Well Control and Marine Diesel Oil, where relevant to the environment that may be affected by these worst-case credible scenarios.	Updated Existing Environment Chapter and risk assessment for Loss of Well Control, and Marine Diesel Oil where relevant).

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
56	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:34	Statement	Relevant person stated that NRE Tas's PWS is responsible for reserves and crown land with each reserve category requiring different management approaches and permit activities as described in Schedule 1 of the NPRMA.	High	ConocoPhillips Australia acknowledges feedback provided by the relevant person and included the National Parks and Reserves Management Act 2022, including the implications of this legislation, in the Legislation and Other Requirements section of the EP.	The National Parks and Reserves Management Act 2022 is included in the Legislative and Other Requirements in the EP and that the implications of this legislation are identified.	Updated Legislative and Other requirements.
57	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:35	Claim	Relevant person stated that impacts to cultural and natural values of reserves may be impacted from "worst case scenarios".	High	ConocoPhillips Australia has reviewed feedback provided by relevant person and conducted a review developed relevant control measures (CM01, CM02, CM05, CM06, CM08, CM09, CM013, CM014, CM015, CM016 and CM017) to ensure that potential impacts to cultural and natural reserves are adequately assessed.	Noted. During the development of the Environment Plan, and through consultation, ConocoPhillips Australia is seeking to identify information on values and sensitivities within the environmental planning area and including this information in the Existing Environment and Risk Assessment chapters for worst-case scenarios including invasive marine species, marine diesel oil spills and loss of well control events. A range of control measures have been developed that address this claim: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM05: Cultural Heritage Protection Program CM06: MODU Mooring Plan CM08: Marine Mammal Adaptive Management Plan CM09: Drilling Program CM13: NOPSEMA accepted Oil and Pollution Emergency Plan (OPEP) CM14: Operational and Scientific Monitoring Plan (OSMP) CM15: Well Design and Delivery Process (WDDP) CM16: Source Control Emergency Response	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM05: Cultural Heritage Protection Program CM06: MODU Mooring Plan CM08: Marine Mammal Adaptive Management Plan CM09: Drilling Program CM13: NOPSEMA accepted Oil and Pollution Emergency Plan (OPEP) CM14: Operational and Scientific Monitoring Plan (OSMP) CM15: Well Design and Delivery Process (WDDP) CM16: Source Control Emergency Response Plan (SCREP), inclusive of Relief Well Plan CM17: NOPSEMA Accepted Well Operations Management Plan
58	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:35	Statement	Relevant person requested that all land authorities are consulted if they are at risk from potential risk scenarios.	High	ConocoPhillips Australia reviewed CM03: Marine and Coastal Users Consultation and Communication Plan and will provide periodic updates to relevant persons in line with it.	CM03: Marine and Coastal Users Consultation and Communication Plan	CM03: Marine and Coastal Users Consultation and Communication Plan
59	4145, 995, 3241	ID14:Department of Natural Resources and Environment Tasmania (NRE TAS)	17/04/2023 16:36	Claim	Relevant person suggested that the EP should consider the emergency response capabilities and existing framework for different scenarios including King Island and associated emergency management committees, State and regional emergency management committees, land authorities and lead agencies.	High	ConocoPhillips Australia confirmed the Otway Exploration Drilling Program EP and OPEP were developed in consideration of consultation feedback from these groups.	No changes to EP content.	"Consult with: - King Island Council - NRE-Tas - coordinated consultation across the department including Biosecurity and Parks and Wildlife Services - EPA-Tas - We have reached out to the Aboriginal Land Council of Tasmania and are pursuing a meeting."
61	2605, 1225	ID485:[redacted]	2/05/2023 16:57	Claim	Relevant person provided feedback regarding the effect seismic testing will have on abalone spawning impacting production.	Low	The objection or claim is not relevant to the adverse effects of the proposed Otway Exploration Drilling Program to which the Environment Plan relates and is beyond the scope of this assessment.	No change to EP content	Nil

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
62	2617, 2609	ID510:Ocean Racing Club of Victoria (ORCV)	6/03/2023 18:03	Request	Relevant person provided feedback regarding the risk the proposed activity may have on the Melbourne to Hobart yacht race which occurs during December/January each year.	High	ConocoPhillips Australia included a notification to Ocean Racing Club Victoria where activities are planned for late-December to early-January for the 2024-25, 2025-26, 2026-27 and 2027-28 race periods (limited potential for the 2023-24 race) into CM03: Marine and Coastal Users Consultation and Communication Plan. Further, section 4.7.5.2 has been updated to include the information provided.	Provide clarifications to Ocean Racing Club Victoria regarding the limited potential to disrupt activities during the December 2023 - January 2024 race, and include notification requirements to Ocean Racing Club Victoria for activities scheduled for late-December to early-January for the 2024-25, 2025-26, 2026-27 and 2027-28 race periods. CM03: Marine and Coastal Users Consultation and Communication Plan. Updated section 4.7.5.2.	Requirement to notify Ocean Racing Club Victoria included in Communication Plan where activities are planned for late-December to early-January for the 2024-25, 2025-26, 2026-27 and 2027-28 race periods. Notifications to occur at least 30 days prior. CM03: Marine and Coastal Users Consultation and Communication Plan
63	509, 2724	ID10:Marine and Safety Tasmania (MAST)	28/02/2023 18:40	Request	Relevant person requested that MAST be kept informed regarding the more general nature of when activities will be taking place to support notifications.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and updated CM03: Marine and Coastal Users Consultation and Communication Plan to include a notification requirement for MAST.	Include notification requirements for Marine and Safety Tasmania in Communication Plan. CM03: Marine and Coastal Users Consultation and Communication Plan	Requirement to notify Marine and Safety Tasmania included in Communication Plan. CM03: Marine and Coastal Users Consultation and Communication Plan
64	1239, 2727	ID528:Australian Oceanographic Services Pty Ltd	19/05/2023 10:16	Claim	Relevant person informed that the absence of defined drilling and seabed survey locations prior to EP submission is not acceptable.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.	Clarification information provided in section 1.4 of EP.	Updates made to section 1.4 of EP.
69	1655, 1637	ID627:Protect the West Victoria, ID111:Australian Marine Conservation Society	4/05/2023 16:28	Claim	Relevant person stated that ConocoPhillips Australia is required to tick a box (for consultation) and that they are helping with the operators paperwork.	Low	ConocoPhillips Australia provided a copy of NOPSEMA "Consultation on offshore petroleum environment plans: Information for the community"	No change to EP content	Nil
70	2601, 2450	ID111:Australian Marine Conservation Society	17/07/2023 15:49	Claim	Relevant person provided feedback that the 30-day public comment period is not enough time to provide meaningful consultation.	High	ConocoPhillips Australia extended the consultation on two occasions, including the release of draft environment plans prior to the completeness check submission to NOPSEMA and 30-day public comment period in create an extended consultation timeline.	Consultation process extended on two occasions.	Consultation process extended on two occasions.
71	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Claim	Relevant person provided feedback regarding the last-minute addition of another titleholder to attend the ConocoPhillips Australia meeting, and being referred to the other titleholders webpage was not considered to be clear, transparent consultation.	High	ConocoPhillips Australia acknowledged that during the course of agreeing to a meeting time, and subsequent request to change the meeting time, things may have become confusing. Noting, Regia was invited to participate in the briefing on 4 May in response to relevant persons request received via email that same morning. Relevant person had previously been advised that ConocoPhillips Australia was not proposing to conduct a seismic survey and contact details had been provided for other titleholders who were.	No change to EP content	Nil

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
72	2601, 2450	ID111:Australian Marine Conservation Society	17/07/2023 16:10	Claim	Relevant person inquired about the availability of maps which include the EMBA.	High	ConocoPhillips Australia provided maps with the modelling reports in August 2023.	No change to EP content	
73	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Claim	Relevant person noted that when they sought information related to operational shutdowns, they were advised to seek this information from the Australian Antarctic Division, and that this was in contradiction to undertaking meaningful consultation and is unsatisfactory.	High	ConocoPhillips Australia advised in the meeting on 4 May 2023 that the organisation has only conducted a single offshore activity and therefore suggested if the relevant person was interested in how the industry performs, the Australian Antarctic Division would have records for all offshore activities. ConocoPhillips further suggested that these records would demonstrate how shutdowns are managed consistently across the industry, which might be more relevant.	No change to EP content	Nil
74	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person requested to be added to the notification list for any incidents or spills.	High	ConocoPhillips Australia reviewed CM03: Marine and Coastal Users Consultation and Communication Plan and will provide periodic updates to relevant persons in line with it.	Review of existing control/s: CM03: Marine and Coastal Users Consultation and Communication Plan	CM03: Marine and Coastal Users Consultation and Communication Plan
75	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person requested that there is to be clarification provided on time frames of incident occurrence to the notification of relevant persons.	High	ConocoPhillips Australia provided clarification that notification would be in accordance with an accepted Oil Pollution Emergency Plan and requested clarification on notification requirements.	No change to EP content	Nil
76	2450	ID111:Australian Marine Conservation Society	17/07/2023 16:22	Request	Relevant person requested access to the EP chapters.	High	ConocoPhillips Australia committed to providing the draft EP chapters (completed August 2023)	No change to EP content	Nil
77	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person requested that ConocoPhillips Australia share the modelling information regarding the impacts of hydrocarbon release/spills, noise emissions and infrastructure.	High	ConocoPhillips Australia committed to providing modelling reports (completed August 2023)	No change to EP content	Nil
78	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person requested that ConocoPhillips Australia share any data/modelling information regarding impacts of spills to Marine Parks, Threatened Species and sensitive receptors.	High	ConocoPhillips Australia committed to providing modelling reports (completed August 2023)	Information provided once available via consultation hub with all information provided by 31 August 2023.	Nil
79	3373, 2198, 2197	ID73:King Island Landcare Group	17/07/2023 16:27	Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback that ConocoPhillips Australia has failed to consider the impact of stage 3 emissions associated with the Otway Exploration Drilling Program. Relevant person stated that the EP will be separate from the activity as the drilling will drive up fossil fuel emissions.	Low	The objection or claim is not directly relevant to the adverse effects of the proposed Otway Exploration Drilling Program, to which the Environment Plan relates.	No change to EP content	NIL
80	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person requested to be informed on shutdown occurrences resulting from sightings of marine mammals.	High	ConocoPhillips Australia requested clarification on intended purpose of information.	No change to EP content	Nil
81	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Other	Relevant person stated that permit T/49P impacts directly on the Zeehan Marine Park and the VIC/P79 lease abounds the Apollo marine protected areas. Relevant person queried if ConocoPhillips Australia will be sharing daily survey reports of marine species spotted in the areas.	High	ConocoPhillips Australia committed to providing observations to relevant state government departments.	Table 10-10: Summary of routine reporting and notification requirements	Information

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
82	1992, 4132	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person requested information on the location of proposed survey and drill locations in relation to the Apollo and Zeehan marine parks and requested modelling reports.	High	ConocoPhillips Australia provided information on overlap with Zeehan multiple use zone and committed to providing modelling reports (completed August 2023)	No change to EP content.	Nil
83	4132, 1992	ID111:Australian Marine Conservation Society	11/05/2023 16:06	Request	Relevant person queried which biodiversity and critical BIA habitat data was used to inform the EP and asked that this was provided to AMCS.	High	ConocoPhillips Australia provided information on data sources.	No change to EP content	Nil
85	2521, 3828	ID33:Environment Protection Authority (EPA) Tasmania	14/03/2023 15:15	Statement	Relevant person requested that ConocoPhillips continues to liaise with NRE-Tas regarding the impacts on cetaceans and seabirds, including the identification of seasonal sensitivities.	High	ConocoPhillips Australia committed to ongoing consultation with NRE-Tas during development of Whale Management Plan and Light Management Plan.	Ongoing consultation with NRETas.	NIL
86	2521, 3828	ID33:Environment Protection Authority (EPA) Tasmania	14/03/2023 15:15	Other	Relevant person recommended validating response actions by ground-truthing to ensure they are fit for purpose.	High	Ground-truthing was conducted by ConocoPhillips Australia and AMOSC personnel from 12-14 July 2023 and Tactical Response Plans updated and provided. CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP)	Ground-truthing was conducted by ConocoPhillips Australia and AMOSC personnel from 12-14 July 2023 and Tactical Response Plans updated and provided. CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP)	Develop Tactical Response Plans and conduct ground truthing exercise on King Island, where access can be secured, prior to EP submission to support OPEP development.
87	3375, 2522	ID36:Victorian Fishing Authority (VFA)	28/11/2022 14:25	Statement	Relevant person provided feedback regarding the cumulative impact of offshore exploration activities.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol) for the exploration program. This includes a commitment to working with industry, relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.	Reviewed existing control/s: CM03: Marine and Coastal Users Consultation and Communication Plan CM04: Commercial Marine Operators Adjustment Protocol Additional Environmental Performance Standard Adopted: ConocoPhillips Australia will work with other titleholders and relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.	CM03: Marine and Coastal Users Consultation and Communication Plan CM04: Commercial Marine Operators Adjustment Protocol Additional Environmental Performance Standard ADOPTED: ConocoPhillips Australia will work with other titleholders and relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.
88	3828, 1657	ID33:Environment Protection Authority (EPA) Tasmania	13/06/2023 10:00	Other	Relevant person stated that some values and sensitivities are not listed in the OPEP (i.e. First Nations cultural heritage, King Island community)	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and confirmed the OPEP includes the listing of First Nations heritage and coastal community values and sensitivities in the NEBAs for MDO and LOWC - Tables 2-11 and 2-12.	Confirmed OPEP (Rev00c) includes this information. First Nations heritage and coastal community values and sensitivities are listed in the NEBAs for MDO and LOWC - Tables 2-11 and 2-12.	Information
89	3828, 1657	ID33:Environment Protection Authority (EPA) Tasmania	13/06/2023 10:00	Request	Relevant person stated that they are required to validate the proposed oil wildlife response strategy and initial response actions as outlined in the OPEP.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations were deemed necessary as no objections to the EP or OPEP content were raised.	No change to EP content	Nil

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
91	1657, 3828	ID33:Environment Protection Authority (EPA) Tasmania	13/06/2023 10:00	Claim	Relevant person requested that ConocoPhillips Australia identifies forward operating base locations on King Island that are key to successful response.	High	"ConocoPhillips Australia reviewed feedback provided by the relevant person and has since updated the Tactical Response Plans to include potential locations for Forward Operating Base which were identified during a ground-truthing exercise. Further, this was updated in CM13: NOPSEMA Accepted Oil Pollution Emergency Plan."	Potential locations for Forward Operating Base identified during ground-truthing exercise conducted by ConocoPhillips Australia and AMOSC personnel from 12-14 July 2023 and Tactical Response Plans updated and provided. CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP)	Develop Tactical Response Plans and conduct ground truthing exercise on King Island, where access can be secured, prior to EP submission to support OPEP development and include information on potential forward operating base and staging areas in Primary TRP for Ettrick River and reference this in secondary TRPs. CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP)
105	2536, 3862	ID508:Blue Whale Study	8/05/2023 10:00	Claim	Relevant person stated that bottom moored acoustic mooring is the BW industry standard.	High	ConocoPhillips Australia has contacted relevant specialists to support the development of/or peer review of CM08: Whale Management Plan.	ConocoPhillips Australia has approached relevant specialists to support the development of or peer review of CM08: Whale Management Plan. No change to EP content as of yet.	Undertake to contract relevant specialists to support the development of the Whale Management Plan for the Otway Exploration Drilling Program, including monitoring and mitigation measures to protect blue whales and other species. CM08: Whale Management Plan
115	3828, 2574	ID33:Environment Protection Authority (EPA) Tasmania	26/04/2023 9:00	Request	Relevant person requested that ConocoPhillips Australia consider pre-emptively stockpiling response equipment on King Island prior to conducting drilling adjacent to King Island.	High	ConocoPhillips Australia has committed to having first strike spill response resources pre-emptively located on King Island in the event that drilling is scheduled to occur within the central zone of the T/49P Operational Area, adjacent to King Island. Table 6-1 of the OPEP has updated to reflect this.	ConocoPhillips Australia has committed to having first strike spill response resources pre-emptively located on King Island in the event that drilling is scheduled to occur within the central zone of the T/49P Operational Area, adjacent to King Island. Table 6-1: Environmental performance requirements and responsibilities for the OPEP (OPEP Rev00C page 73) has been updated to reflect this control measure. and measurement criteria have been established to demonstrate compliance including: - Agreements, contracts in place, and - Equipment in position prior to drilling in central zone of T/49P.	First strike response equipment will be pre-positioned on King Island to support rapid response, in the event that drilling is scheduled to occur within the central zone of the T/49P Operational Area, adjacent to King Island.
116	3828, 2574	ID33:Environment Protection Authority (EPA) Tasmania	28/04/2023 9:00	Request	Relevant person requested that ConocoPhillips Australia consider pre-emptive debris clearance in TRPs and including possible methods to collect waxy materials.	High	ConocoPhillips Australia has included the requirement for pre-emptive debris clearance in the section 7 and 8.6 of the Shoreline Plan and TRPs, and methods for recovery of hydrocarbons, including manual removal of weathered waxy residues, are provided in the Shoreline Plan.	ConocoPhillips Australia has included the requirement for shoreline pre-clean in: - Sections 7 and 8.6 of the Shoreline Plan (Rev00c) - The Primary TRP developed for Ettrick River, King Island - as the first response task, and - The Secondary TRPs for King Island - Pre-oil clean-up recommendations, as part of SCAT Information. Methods proposed for recovery of hydrocarbons, including manual removal of weathered waxy residues, are provided in the Shoreline Plan (Rev00C), Appendix 1: Shoreline Treatment Recommendation Guides, Tables A1-1a through to A1-1h, where relevant to shoreline type.	Pre-emptive debris clearance (pre-clean of shorelines to above high tide mark) included in shoreline plan and TRPs. Methods proposed for recovery of hydrocarbons, including manual removal of weathered waxy residues, are provided in the Shoreline Plan (Rev00C), Appendix 1: Shoreline Treatment Recommendation Guides, Tables A1-1a through to A1-1h, where relevant to shoreline type.

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
119	3372, 2575	ID109:Glenelg Shire Council	24/03/2023 9:30	Other	Relevant person recommended that advertising occur through the Portland Observer	High	ConocoPhillips Australia reviewed feedback and has since been advertising in the Portland Observer.	Advertise in the Portland Observer.	Advertise in the Portland Observer.
121	582, 3368	ID5:Colac Otway Shire Council	3/03/2023 12:00	Claim	Relevant person provided feedback regarding military risk during exploration activities.	High	ConocoPhillips Australia reviewed relevant controls (CM01, CM02, CM05, and CM06) to ensure that the risks associated with UXO encounter are adequately assessed and mitigated.	Review of existing control/s: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM05: Cultural Heritage Protection Program CM06: MODU Mooring Plan	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM05: Cultural Heritage Protection Program CM06: MODU Mooring Plan
122	2576, 3348	ID11:South East Trawl Fishing Industry Association (SETFIA)	25/07/2022 9:00	Other	Relevant person recommended that future project names are simplified.	High	ConocoPhillips Australia reviewed feedback and simplified the name of the activity to reduce confusion.	Simplified naming of project activity to reduce consultation confusion.	Simplified naming of project activity to reduce consultation confusion.
123	3369, 2417	ID470:[redacted]	13/07/2023 11:02	Statement	Relevant person stated that they are relevant and entitled to receive and to continue to receive information on the area as it becomes available.	High	ConocoPhillips Australia committed to ongoing provision of information.	No change to EP content	Nil
124	3369, 2417	ID470:[redacted]	13/07/2023 11:15	Claim	Relevant person suggested that it might make sense to have only one hole drilled at a time to reduce the chance of unknown conditions.	High	ConocoPhillips Australia provided confirmation of only drilling one hole at a time and updated section 2.2.2 Drilling Operations to clarify this.	Addressed in section 2.2.2	Information
125	3369, 2417	ID470:[redacted]	13/07/2023 11:19	Claim	Relevant person stated that the map provided shows sharp drop-off to the west/south west, which suggests that these are marine canyons which likely contain recently deposited fine sediment that may be mobilised by shocks and become mobilised into turbidity currents, transferring sediment from near-shore to off-shore/the abyssal plane.	High	ConocoPhillips Australia provided and overview of water quality impact assessment, based on published literature from comparable activities, that predicts that the near shore will not be impacted by routine operational and drilling discharges.	No change to EP content	NIL
126	3369, 2417	ID470:[redacted]	13/07/2023 11:19	Claim	Relevant person stated that the main effect of the activity will be on water quality.	High	ConocoPhillips Australia provided and overview of water quality impact assessment, based on published literature from comparable activities, that predicts that the near shore will not be impacted by routine operational and drilling discharges.	No change to EP content	NIL
138	3368, 2665	ID5:Colac Otway Shire Council	24/07/2023 8:16	Claim	Relevant person suggested clarification regarding the 20hr statement (for vertical seismic profiling) which needs further clarification to ensure it reflects 20 hrs x 6 wells.	High	ConocoPhillips Australia reviewed and updated the EP so that each reference relating to VSP clearly states that it will occur for 20 hours per well for a maximum of 6 wells.	EP reviewed and updated so that each reference is to 20 hours per well for a maximum of 6 wells.	Information
143	2690, 3860	ID571:Warrnambool Coastcare Landcare Network	1/08/2023 10:52	Claim	Relevant person stated that the Middle Island penguin colony are threatened by human resource use and predation by introduced canids.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and included contextual information to Sections 4.4.6 and 4.6.7.5 and an additional impact assessment was included in Section 6.6.7 to ensure that any potential impacts to the little penguin were adequately assessed.	Contextual information on identified threats/pressures added to sections 4.4.6 and 4.6.7.5 and additional impact assessment information added to section 6.6.7: "It is inferred that penguins have relatively poor hearing thresholds in the lower frequencies (McCauley, 1994). As little penguins typically participate in coastal foraging trips within 8-14 km of their colonies (McCutcheon et al. 2011) and considering colonies are located approximately 20 km [including the middle island colony] or more from the operational areas impacts to the little penguin from continuous underwater sound emissions are not predicted."	Nil

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144	1658, 3377	ID37:Department of Transport and Planning (DOT)	13/06/2023 12:00	Request	Relevant person suggested that it would be beneficial to see the NEBA criteria in the OPEP.	High	ConocoPhillips Australia included the NEBA criteria into the OPEP.	NEBA criteria included in the OPEP (Rev00b).	Information included in OPEP
145	3377, 1658	ID37:Department of Transport and Planning (DOT)	13/06/2023 12:00	Claim	Relevant person informed that the Port of Hastings has been left out of the list of ports.	High	ConocoPhillips Australia included the Port of Hastings into the OPEP tables and Appendix 5: Contact Directory.	Port of Hastings included in OPEP (Revb) tables Appendix 5: Contact Directory	Port of Hastings included in OPEP tables and Appendix 5: Contact Directory Port of Hastings Duty Officer (Incident Notifications)+61 437 645 026 Port of Hastings Office +61 3 5979 5500enquiries@portofhastings.vic.gov.au
146	1658, 3377	ID37:Department of Transport and Planning (DOT)	13/06/2023 12:00	Other	Relevant person requested clarification in the OPEP table 3-4 regarding what regulatory notifications are to be made.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations to the OPEP (Table 3-4) were deemed necessary as required content was provided.	No change to EP content	Nil
147	1658, 3377	ID37:Department of Transport and Planning (DOT)	13/06/2023 12:00	Other	Relevant person advised that they would be interested in reviewing shoreline document.	High	ConocoPhillips Australia provided these documents.	No change to EP content	NIL
148	1658, 3377	ID37:Department of Transport and Planning (DOT)	13/06/2023 12:00	Other	Relevant person suggested that the definition of environmental in the OPEP is consistent with the NOPSEMA definition.	High	ConocoPhillips Australia included this definition in the next revision of the OPEP.	Definition included in next revision of the OPEP (Rev00C).	Include definition
149	3376, 4249, 1821	ID50:Tasmanian Seafood Industry Council (TSIC)	2/06/2023 9:00	Statement	Relevant person provided feedback regarding the 'marine spatial squeeze' that the fishing industry is feeling due to increase industry activity, market access, regulation and cost of living.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol) for the exploration program. This includes a commitment to working with industry, relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.	Review of existing control/s: CM04: Commerical Marine Operators Adjustment Protocol Environmental Performance Standards: - An Adjustment Protocol will be negotiated with peak fishing associations to ensure that any claims of fishers can be assessed and compensated. The protocol will also be developed based on feedback from consultation with other commercial marine operators who identified they could be potentially impacted by the petroleum activity. - ConocoPhillips Australia will work with other titleholders and relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers.	

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150	4249, 1821, 3376	ID50:Tasmanian Seafood Industry Council (TSIC)	2/06/2023 9:00	Statement	Relevant person stated that the number of activities is causing confusion and disengagement in the fishing community at a time of market uncertainty.	High	ConocoPhillips Australia has committed to collaborative consultation with other titleholders and relevant fishery associations and persons to minimise the potential for cumulative impacts to commercial fishers. This initiative is detailed in CM04: Commercial Marine Operators Adjustment Protocol.	Working in a fee-for-service arrangement with TSIC to reduce consultation fatigue of membership. Exploring collaborative consultation with other titleholders (CM04: Commerical Marine Operators Adjustment Protocol - EPS: ConocoPhillips Australia will work with other titleholders and relevant fishery associations and persons, to design an application process for compensation that minimises the potential for cumulative impacts to commercial fishers (Event ID: 1821, Reg16b ID: 150). Providing information and links to any individual or organisation that confuses the ConocoPhillips Australia Otway Exploration Drilling Program with other titleholder/ proponent activities.	Working in a fee-for-service arrangement with TSIC to reduce consultation fatigue of membership. Providing information and links to any individual or organisation that confuses the ConocoPhilliips Australia Otway Exploration Drilling Program with other titleholder/ proponent activities.
151	4249, 1821, 3376	ID50:Tasmanian Seafood Industry Council (TSIC)	2/06/2023 9:00	Claim	Relevant person stated that the lack of defined drilling locations is causing unnecessary stress.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4.
152	4249, 1821, 3376	ID50:Tasmanian Seafood Industry Council (TSIC)	2/06/2023 9:00	Claim	Relevant person provided feedback regarding the adjustment protocol and whether it will be flexible with changing market dynamics.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol) for the exploration program.	Review existing control measure/s: CM04: Commercial Marine Operators Adjustment Protocol	CM04: Commercial Marine Operators Adjustment Protocol

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153	4249, 1821, 3376	ID50:Tasmanian Seafood Industry Council (TSIC)	2/06/2023 10:08	Claim	Relevant person stated that until the drilling locations are decided ConocoPhillips Australia will not know the full impact of the activity.	High	ConocoPhillips Australia updated section 1.4 of the EP to provide clarification on the evaluation of impacts and risks across the wider operational areas.	Updates to section 1.4	Information
154	2690, 3860	ID571:Warrnambool Coastcare Landcare Network	1/08/2023 10:52	Claim	Relevant person stated that recent declines in the Middle Island little penguin colony are not necessarily due to canid predation and adding additional threatening processes (i.e. seismic testing) is counterproductive to conservation efforts.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and included contextual information to Sections 4.4.6 and 4.6.7.5 and an additional impact assessment was included in Section 6.6.7 to ensure that any potential impacts to the little penguin were adequately assessed.	Contextual information on identified threats/pressures added to sections 4.4.6 and 4.6.7.5 andadditional imapct assessment information added to section 6.6.7: "It is inferred that penguins have relatively poor hearing thresholds in the lower frequencies (McCauley, 1994). As little penguins typically participate in coastal foraging trips within 8-14 km of their colonies (McCutcheon et al. 2011) and considering colonies are located approximately 20 km [including the middle island colony] or more from the operational areas impacts to the little penguin from continuous underwater sound emissions are not predicted."	Information
155	2690, 3860	ID571:Warrnambool Coastcare Landcare Network	1/08/2023 10:52	Claim	Relevant person stated that they oppose seismic testing in the Otway Basin due to the potential impacts on the biologically important behaviours of marine fauna species such as the little penguin (foraging), cetaceans (avoidance) and the potential impacts to the marine food web (i.e. planktonic species in the Bonney Coast Upwelling).	High	ConocoPhillips Australia reviewed feedback provided by relevant person and included contextual information to Sections 4.4.6 and 4.6.7.5 and an additional impact assessment was included in Section 6.6.7 to ensure that any potential impacts to the little penguin were adequately assessed.	Additional information provided in EP section 6.6.7: "It is inferred that penguins have relatively poor hearing thresholds in the lower frequencies (McCauley, 1994). As little penguins typically participate in coastal foraging trips within 8-14 km of their colonies (McCutcheon et al. 2011) and considering colonies are located approximately 20 km [including the middle island colony] or more from the operational areas impacts to the little penguin from continuous underwater sound emissions are not predicted."	
156	649, 2729	ID110:Surf Coast Shire Council	16/03/2023 12:51	Request	Relevant person requested that the Council's opposition to seismic testing and oil and gas development in the Otway Basin is noted in consultation records.	Low	ConocoPhillips Australia notes that feedback in the EP.	No change to EP content	NIL
157	4653, 540	ID28:Department of Defence	2/03/2023 15:21	Statement	Relevant person advised that unexploded ordnance (UXO) may be present on and in the sea floor and therefore, ConocoPhillips Australia must assess the risks associated with conducting activities in the area.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and updated Section 6.2.5.1 of the EP to include information provided.	Updated section 6.2.5.1 of the Environment Plan to include the information provided.	Information

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
158	540, 4653	ID28:Department of Defence	2/03/2023 15:22	Statement	Relevant person advised that all activities are conducted at ConocoPhillips Australia's own risk relating to the presence of UXO within the areas.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and updated Section 6.2.4.6 and 6.2.5.1 of the EP to include information provided. Further, ConocoPhillips Australia commissioned RPS Explosives Engineering Services to conduct desktop study and risk assessment (Appendix K) which is incorporated into Section 4.7.3, 6.2.4.6 and 6.2.5.1 of the EP.	Updated sections 6.2.4.6 and 6.2.5.1 of the Environment Plan to include the information provided and commissioned RPS Explosives Engineering Services to conduct desktop study and risk assessment. This study concluded that there was a 'Low' risk of encountering UXOs within VIC/P79 or T/49P for all activities, with the exception of Snag on Vessel. The risk level of a UXO being snagged on submarine equipment and subsequently brought onto a vessel (Snag on Vessel), e.g. during retrieval of cable, was assessed as 'Moderate' based on the increased severity of the consequence. Reactive mitigations recommended by RPS, including an explosives safety briefing and on-call explosives engineer, were adopted, along with the primary mitigation measure being seabed surveys using magnetometry or similar.	Information
159	540, 4653	ID28:Department of Defence	2/03/2023 15:47	Request	Relevant person requested that there is continued consultation with the AHS to issue NOTMARs.	High	ConocoPhillips Australia will contact AHO prior to seabed survey, anchor pre-lay and drilling activities as per CM03: Marine and Coastal Users Consultation and Communication Plan.	Include as control measure for seabed survey, anchor pre-lay and drilling activities to minimise impacts to other marine users and to minimise the risk of vessel collision.	CM03: Marine and Coastal Users Consultation and Communication Plan Requirement for ConocoPhillips Australia, or contractor, to contact AHO via datacentre@hydro.gov.au added to 'Communication Plan' for exploration program, as 'Notification 30 days prior to mobilisation for: - Seabed survey - Anchor pre-lay - Drilling operations'
212	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried how far the closest drill hole will be to King Island.	High	"ConocoPhillips Australia provided the requested information.	No change to EP content	Nil
213	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried how many km the drilling will occur away from their hatchery.	High	ConocoPhillips Australia provided the requested information.	No change to EP content	Nil
214	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried at what distance the drilling will begin to have an impact.	High	"ConocoPhillips Australia provided information from the EP the highly localised and temporary impacts. "	No change to EP content	Nil
215	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried how big the scope of the proposed drilling operation is.	High	ConocoPhillips Australia provided information on the full scope of the EP assessment.	No change to EP content	Nil
216	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person requested information on how heat dissipate during the drilling process.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content. Assessment already included.	Nil
217	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried whether an assessment of how far heat radiation will extend from the drilling operation.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content. Assessment already included.	Nil

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218	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried what would come into the hatchery as the result of activities.	High	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as a result of the proposed activity, as described in section 6.3.5.3.	No change to EP content	Nil
219	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried what the possible effects of heat radiation are, specifically in relation to marine growth and biology.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content	Nil
220	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried how resuspension could affect their water inlet, i.e. could the strength of the water current in the area bring sediment in to their inlet.	High	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as a result of the proposed activity, as described in section 6.3.5.3.	No change to EP content	Nil
221	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried how resuspension could affect their water inlet.	High	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as a result of the proposed activity, as described in section 6.3.5.3.	No change to EP content	Nil
222	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Request	Relevant person requested details for the quantity and type of chemicals to be used during the drilling exploration process.	High	ConocoPhillips Australia provided an overview of CM12: General and Hazardous Chemical Management Procedures.	Review existing control measure/s CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
223	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried how ConocoPhillips Australia is planning to test the physical and microbiological parameters of the marine environment.	High	"ConocoPhillips Australia conducted a review of control measures relevant to the mitigation of impacts associated with the physical and microbiological parameters of the marine environment to ensure impacts were adequately assessed. Further, section 10.5.4 (Measuring and monitoring) of the Implementation Strategy provides a summary of the environmental monitoring that will be undertaken as part of the Otway Exploration Drilling Program."	Review of existing control/s: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM09: Drilling Program Implementation Strategy - section 10.5.4. Measuring and Monitoring	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM09: Drilling Program Implementation Strategy - section 10.5.4. Measuring and Monitoring
224	574, 2657	ID13:King Island Marine Research	8/03/2023 12:28	Other	Relevant person queried if ConocoPhillips Australia is aware of any potential geological impact.	High	ConocoPhillips Australia advised that drilling has been conducted safely for over 50 years in the offshore environment in the Otway Basin, with all wells in the Otway Exploration Drilling Program being plugged and abandoned as per Australian regulatory requirements, with negligible geological impact at the time of drilling (penetration of the formations at the point of the well) and no predicted short or long-term impacts.	No change to EP content	Nil

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239	3194, 3862	ID528:Australian Oceanographic Services Pty Ltd, ID508:Blue Whale Study	4/09/2023 8:11	Request	Relevant person advised that monitoring equipment has been installed within the VIC/P79 operational area which will need to be avoided.	High	ConocoPhillips Australia added an additional section in Chapter 6.2 (Interference with Other Marine and Coastal Users) relevant to research (6.2.4.1). Further, a new EPS was developed which requires an avoidance area be established around research equipment in VIC/P79, that will be communicated to vessel and MODU operators prior to commencement of the activity.	Addition of relevant text in section in Chapter 6.2 Interference with Other Marine and Coastal Users, including: - New section 6.2.4.1 Research - New section in 6.2.5.1 Consequence Evaluation to Socio-economic Receptors (Research), and - New control Measure in section 6.2 and Section 9 - Table 9-1. CM02: Vessel and MODU Operating Procedures. Environmental Performance Standard: An avoidance area will be established around the temperature logger and mooring in VIC/P79 to minimise the risk of damage to or loss of the monitoring equipment, associated with vessel and MODU movements [see EVENT ID: 3194: for coordinates], and will be communicated to vessel and MODU operators prior to commencement of the activity. Measurement Criteria: - Vessel Logs - Vessel Tracks - Consultation Records - Induction - No recordable incidents	Addition of relevant text in section in Chapter 6.2 Interference with Other Marine and Coastal Users. New control Measure in section 6.2 and Section 9 - Table 9-1. CM02: Vessel and MODU Operating Procedures. Environmental Performance Standard: An avoidance area will be established around the temperature logger and mooring in VIC/P79 to minimise the risk of damage to or loss of the monitoring equipment, associated with vessel and MODU movements [see EVENT ID: 3194: for coordinates], and will be communicated to vessel and MODU operators prior to commencement of the activity.
243	3824, 2470	ID7:Director Of National Parks (DNP)	21/04/2023 13:42	Claim	Relevant person requested that activities which may displace the Pygmy Blue Whale or Southern Right Whale's use of BIAs are avoided.	High	ConocoPhillips Australia updated Section 6.6.7.1 to include more information on this assessment.	Additional information added to EP section 6.6.7.1 on the process for assessing ability to avoid times sensitive times of year.	CM08: Whale Management Plan; Information
244	3824, 2470	ID7:Director Of National Parks (DNP)	21/04/2023 13:44	Claim	Relevant person requested that activities are timed or managed to avoid species' peak migration and foraging behaviours.	High	ConocoPhillips Australia updated Section 6.6.7.1 to include more information on this assessment.	Additional information added to EP section 6.6.7.1 on the process for assessing ability to avoid times sensitive times of year.	CM08: Whale Management Plan; Information
245	3824, 2470	ID7:Director Of National Parks (DNP)	21/04/2023 13:45	Claim	Relevant person requested that potential cumulative impacts on species is addressed considering there are two proposed seismic surveys near the proposed Otway Exploration Drilling Program.	High	ConocoPhillips Australia conducted a review of Chapter 8: Cumulative Impact Assessment to ensure the cumulative impacts associated with the proposed activity were adequately assessed.	Cumulative Impact Assessment CM08: Whale Management Plan Additional Environmental Performance Standards for cumulative impacts Activity limitations - single well drilled/P&A'ed in region at any one time. Implementation Change - single rig operating across multiple projects to minimise number of rigs in region at any one time.	Cumulative Impact Assessment CM08: Whale Management Plan Additional Environmental Performance Standards for cumulative impacts Activity limitations - single well drilled/P&A'ed in region at any one time. Implementation Change - single rig operating across multiple projects to minimise number of rigs in region at any one time.

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
246	3824, 2470	ID7:Director Of National Parks (DNP)	21/04/2023 13:47	Other	Relevant authority advised that Australian Marine Parks and their representativeness (including relevant management plans listed objectives and values) are to be considered in the content of the EP.	High	ConocoPhillips Australia incorporated feedback in to the EP including the existing environment (section 4.4.1) and impact and risk sections 6.3-6.9, 7.3 - 7.8 to demonstrate that the activity will not be inconsistent with relevant AMP management plans.	In preparing the EP, ConocoPhillips Australia has undertaken to consider the Australian marine parks and their representativeness to ensure that the EP: •Identifies all Australian Marine Parks within the broader environmental planning area based on the low threshold loss of well control EMBA (environment that may be affected), and their conservation values and sensitivities - See section 4.4.1 of draft Environment Plan chapter 4. Description of the Environment •Identifies and manages all impacts and risks on Australian marine park values (including ecosystem values) to an acceptable level and has considered all options to avoid or reduce them to as low as reasonably practicable - see draft environment plan chapter 6. Environmental Impact Assessment and subsections 6.3 Seabed Disturbance, 6.4 Light Emissions, 6.5 Atmospheric Emissions, 6.6 Underwater Sound Emissions - Non-impulsive, 6.7 Underwater Sound - Impulsive, 6.8 Planned Drilling Discharges, 6.9 Planned Operational Discharges, 7.3 Minor Loss of Containment, 7.4 Interaction with Marine Fauna, 7.5 Introduction, Establishment and	Information
247	2470, 3824	ID7:Director Of National Parks (DNP)	21/04/2023 13:49	Request	Relevant authority requested notification of hydrocarbon pollution incidences that may impact a marine park.	High	ConocoPhillips Australia incorporated the notification requirement into the Implementation Strategy (Table 10-8) and the OPEP.	Notification requirements have been included in the Implementation Strategy (Table 10-8) and the OPEP.	Notification requirements have been included in the Implementation Strategy (Table 10-8) and the OPEP.
270	3863, 3129	ID13:King Island Marine Research	28/08/2023 11:40	Claim	Relevant person stated that the drilling program will hamper their operations and the lobsters that inhabit them.	High	ConocoPhillips Australia clarified that the activity presented in the Environment Plan is for short-term, temporary seabed surveys and exploration drilling with no cause-effect pathways identified for impacts to the long-term sustainability of the fishery.	No change to EP content	NIL
271	3863, 3129	ID13:King Island Marine Research	28/08/2023 11:48	Claim	Relevant person provided feedback regarding the dependence fisheries have on the local natural environment to collect brood stock.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol).	Review existing control measure/s: CM04: Commercial Marine Operators Adjustment Protocol	CM04: Commercial Marine Operators Adjustment Protocol
272	3863, 3129	ID13:King Island Marine Research	28/08/2023 11:56	Claim	Relevant person stated that gas exploration and drilling, specifically thermal discharges, can affect the physical properties of water by elevating the localised temperature at discharge locations potentially disrupting the thermal balance of the ecosystem.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	6.9.5.1 Physical Environment	Information
273	3242, 4229	ID35:Department of Energy Environment and Climate Action (DEECA)	1/09/2023 12:26	Objection	Relevant person stated that the information provided regarding the positions of shipwrecks stated in the EP are inaccurate and not the known position of a shipwreck but the centrepoint of an area that the unfound shipwreck may be located based off historic records.	High	ConocoPhillips Australia updated Section 4.8.1 (Marine Archaeological Heritage) to reflect the information provided.	Information provided in draft Environment Plan (EP) chapter 4 revised to address issues raised, namely section '4.8.1 Maritime Archaeological Heritage.	Additional information to clarify the uncertainty in the Australasian Underwater Cultural Heritage Database: https://www.dcceew.gov.au/parks-heritage/heritage/underwater-heritage/auchd

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274	4229, 3242	ID35:Department of Energy Environment and Climate Action (DEECA)	1/09/2023 12:27	Objection	"Relevant person stated that the risk assessment on marine heritage is much higher than assessed and there is no control measure in place to ensure the project does not impact maritime heritage. Relevant person suggested that survey data should be reviewed by an experienced maritime archaeologist and may need to include multiple survey techniques to determine appropriate mitigation measures."	High	"ConocoPhillips Australia conducted a review of the relevant control measure CM05: Cultural Heritage Protection Plan to ensure impacts to the cultural heritage of the receiving environment were adequately assessed. Further,"	Review existing control measure/s: CM05: Cultural Heritage Protection Process The Implementation Strategy (chapter 10, Table 10-8) includes provisions for reporting the identification of any historic shipwreck, aircraft, UXO or other cultural relics within 7 days using the online shipwrecks notification form: https://environment.gov.au/shipwreck/public/forms/notification.do?mode=add	CM05: Cultural Heritage Protection Process
275	3863, 3129	ID13:King Island Marine Research	28/08/2023 13:13	Claim	Relevant person stated that gas exploration and drilling can affect the physical properties of water, including circulation due to the creation of physical barriers that impede water flow and cause changes in currents, impacting the distribution of heat and nutrients in the affected areas, potentially affecting temperature gradients and other parameters.	High	ConocoPhillips Australia determined that no alterations were deemed necessary as impacts to water quality associated with exploration drilling were adequately assessed in Chapters 6.8 and 6.9 of the EP.	No change to EP content	Nil
276	3863, 3129	ID13:King Island Marine Research	28/08/2023 14:19	Claim	Relevant person stated that gas exploration and drilling can affect the physical properties of water, including sediment resuspension from the seafloor due to construction and drilling operations, increasing turbidity, impacting parameters related to light availability and photosynthesis.	High	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as described in section 6.3.5.3.	6.3.5.3 Socio-economic Environment	Information
277	3863, 3129	ID13:King Island Marine Research	28/08/2023 14:21	Claim	Relevant person stated that stated that gas exploration and drilling, specifically from chemical discharges, can affect the physical properties of water, by introducing substances that may alter water chemistry and adversely impact parameters such as pH, salinity and dissolved oxygen levels.		ConocoPhillips Australia assessed the types of chemicals used for drilling and their effects and included CM12: General and Hazardous Chemical Management Procedures.	6.8.5.1 Drill Cuttings and Fluids	Information
278	3863, 3129	ID13:King Island Marine Research	28/08/2023 14:33	Claim	Relevant person provided feedback regarding underwater noise impacting aquatic species, especially lobsters.	High	ConocoPhillips Australia provided and overview of the underwater sound impact assessments relevant to southern rock lobster, with impacts from non-impulsive and impulsive sound restricted to within 10's to 170 metres of the sound source with negligible impacts, as assessed in sections 6.6.3 Exposure Criteria Thresholds, 6.6.6 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors and 6.7.5 Identifying Sound-sensitive Receptors.	Addressed in section 6.6.3 Exposure Criteria Thresholds, 6.6.6 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors	Information
279	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:25	Claim	Relevant person provided feedback regarding the construction of offshore platforms and laying of pipelined resulting in habitat destruction, resulting in the relocation of lobsters impacting survival and reproductive success.	Low	ConocoPhillips Australia determined that no amendments to the EP were warranted as the objection or claim was not within the scope of the adverse effects of the proposed activity as no offshoreplatforms or laying of pipe are being proposed. CM06: Mooring Plan addresses impacts associated with the proposed activity	CM06: MODU Mooring Plan	CM06: MODU Mooring Plan

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280	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:30	Claim	Relevant person provided feedback regarding underwater noise impacting aquatic species, especially lobsters.	High	ConocoPhillips Australia provided an overview of the underwater sound impact assessments relevant to southern rock lobster, with impacts from non-impulsive and impulsive sound restricted to within 10's to 170 metres of the sound source, as assessed in sections 6.6.3 Exposure Criteria Thresholds, 6.6.6 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors and 6.7.5 Identifying Sound-sensitive Receptors.	No change to EP content	Nil
281	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:32	Claim	Relevant person stated that gas exploration and drilling can have significant impacts, particularly through water contamination, on marine life (including lobsters) as chemicals released into the marine environment can impact water quality and habitat composition. In particular, lobsters, as filter feeders, are susceptible to ingesting and accumulating pollutants, which may have long-term negative effects on their health, growth, and reproduction.	High	ConocoPhillips Australia conducted a review of relevant control measures CM09: Drilling Program and CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment, particularly benthic communities, were adequately assessed.	Review existing control measure/s: CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures	CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures
282	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:33	Claim	Relevant person stated that gas exploration and drilling can have significant impacts (displacement and disturbance to natural processes) on marine life, including lobsters which can potential leading to population declines.	High	ConocoPhillips Australia determined that no alterations were deemed necessary as there are no predicted changes to lobster populations as the result of the proposed Otway Exploration Drilling Program.	No change to EP content	Nil
283	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:34	Claim	Relevant person advised that gas exploration and drilling can have significant impacts, particularly through bioaccumulation, on marine life, including lobsters as heavy metals released could result in long-term damage. Information was cited Nkechi et al., 2019 and Xu et al., 2018.	High	ConocoPhillips Australia conducted a review of relevant control measures CM09: Drilling Program and CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment, particularly benthic communities, were adequately assessed.	Review existing control measure/s: CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures	CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures
284	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:35	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person advised that hatcheries have been affected by gas exploration and drilling (ex. Queensland coal seam gas extraction raised concerns about the potential to impact nearby hatcheries), with extraction process involving hydraulic fracturing and the extraction of large volumes of ground water. Information was cited Randall, 2015.	Low	ConocoPhillips Australia determined that no alterations to the EP were deemed necessary as the Otway Exploration Drilling Program covers short-term, temporary seabed surveys and exploration drilling and will not be using hydraulic fracturing for the drilling of wells.	No change to EP content	Nil

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285	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:37	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person advised that hatcheries have been impacted by gas exploration and drilling (ex. Deep water horizon spill had inverse effects on the spawning grounds and larval stages of numerous fish species). Information was cited Sumaila et al., 2012.	High	ConocoPhillips Australia conducted a review of relevant control measures CM09, CM12, CM13, CM14, CM15, CM16, CM17 to ensure impacts to the receiving marine environment were adequately assessed.	Reviewed existing control measure/s: CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP) CM14: Operational and Scientific Monitoring Plan (OSMP) CM15: Well Design and Delivery Process (WDDP) CM16: Source Control Emergency Response Plan (SCREP), inclusive of Relief Well Plan CM17: NOPSEMA Accepted Well Operations Management Plan	CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP) CM14: Operational and Scientific Monitoring Plan (OSMP) CM15: Well Design and Delivery Process (WDDP) CM16: Source Control Emergency Response Plan (SCREP), inclusive of Relief Well Plan CM17: NOPSEMA Accepted Well Operations Management Plan
286	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:37	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person advised that hatcheries have been affected by gas exploration and drilling (ex. Sakhalin Island, in the Sea of Okhotsk an oil and gas project raised concerns about its impact on the critically endangered Western Pacific gray whales. The project involved offshore drilling and pipeline construction, potentially affecting the whales' feeding areas and migration routes. Information was cited Leonov, A. 2000).	Low	ConocoPhillips Australia determined that no amendments to the EP were warranted as the objection or claim was not within the scope of the adverse effects of the proposed activity.	No change to EP content	Nil
287	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:38	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback regarding cases where hatcheries have been affected by wastewater spills to creeks affecting downstream water quality and environmental health.	Low	ConocoPhillips Australia determined that no amendments to the EP were warranted as the objection or claim was not within the scope of the adverse effects of the proposed activity.	No change to EP content	Nil
288	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:39	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback regarding cases where hatcheries have been affected by wastewater spills to creeks affecting downstream water quality and environmental health.	Low	ConocoPhillips Australia determined that no amendments to the EP were warranted as the objection or claim was not within the scope of the adverse effects of the proposed activity.	No change to EP content	Nil
289	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:39	Statement	Relevant person provided feedback regarding historical incidents associated with ConocoPhillips operations globally.	High	ConocoPhillips Australia identified that the incidents referenced related to onshore and offshore production operations, and provided information specific to exploration drilling activities which show zero incidents resulting an uncontrolled release of formation fluids contributing to a fire, pollution event and/or direct impacts to personnel where regaining control of the well requires a third party well control specialist in the last 10 years.	No change to EP content	Nil

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290	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:40	Claim	"Relevant person stated that subsurface pressure and flow patterns can be altered during drilling and potentially lead to changes in groundwater levels, aquifer depletion, or induce seismic activity. Information was cited Zoback and Gorelick, 2012."	High	ConocoPhillips Australia conducted a review of relevant control measures CM09: Drilling Program, CM15: Well Design and Delivery Process and CM17: NOPSEMA accepted Well Operations Management Plan to ensure impacts to the receiving environment were adequately assessed.	Review of existing controls measure/s: CM09: Drilling Program CM15: Well Design and Delivery Process (WDDP) CM17: NOPSEMA Accepted Well Operations Management Plan	CM09: Drilling Program CM15: Well Design and Delivery Process (WDDP) CM17: NOPSEMA Accepted Well Operations Management Plan
291	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:47	Claim	"Relevant person stated that fluids and solids are introduced into geological formations during drilling which can cause damage to the reservoir rock. Information was cited Blasingame and Holditch, 1985."	High	ConocoPhillips Australia conducted a review of relevant control measures CM09: Drilling Program, CM15: Well Design and Delivery Process and CM17: NOPSEMA accepted Well Operations Management Plan to ensure impacts to the receiving environment were adequately assessed.	Review existing control measure/s: CM09: Drilling Program CM15: Well Design and Delivery Process (WDDP) CM17: NOPSEMA Accepted Well Operations Management Plan	CM09: Drilling Program CM15: Well Design and Delivery Process (WDDP) CM17: NOPSEMA Accepted Well Operations Management Plan
292	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:48	Claim	Relevant person stated that in areas where significant fluid extraction occurs, land subsidence may occur due to the compaction of reservoir rocks and can have long-term implications for the Otway Basin environment and infrastructure. Information was cited Galloway and Burbey, 2011.	Low	ConocoPhillips Australia determined that no alterations to the EP were deemed necessary as hydraulically fracturing is not an included activity in the proposed Otway Exploration Drilling Program.	No change to EP content	Nil
293	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:48	Claim	"Relevant person stated that improper handling of drilling fluids, spills, or leaks from drilling operations can lead to the contamination of groundwater, affecting both water quality and the viability of groundwater resources and its adjacent areas. Information was cited Jackson et al., 2013."	High	ConocoPhillips Australia conducted a review of relevant control measures to ensure that the proper controls associated with the use of drilling fluids was assessed.	Review of existing control/s: CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures	CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures
294	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:49	Claim	Relevant person stated that high-intensity drilling activities, particularly hydraulic fracturing have been linked to an increased occurrence of small to moderate earthquakes in some region which can pose a risk to infrastructure and public safety. Information was cited Ellsworth, 2013.	Low	ConocoPhillips Australia determined that no alterations to the EP were deemed necessary as significant extractions of fluid is not proposed during the Otway Exploration Drilling Program.	No change to EP content	Nil
295	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:50	Claim	"Relevant person stated that elevated temperatures can increase the metabolic rate of lobsters and potentially lead to initially faster growth, however prolonged exposure to high temperatures can stress the lobsters and affect overall growth rates. Information was cited Ong and Burnett, 1997."	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content	Nil
296	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:51	Claim	"Relevant person stated that warmer temperatures can accelerate moulting and development which might result in softer shells, leaving lobsters more vulnerable to predation and injury. Information was cited Aiken and Waddy, 1993."	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content	Nil
297	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:52	Claim	Relevant person stated that heat can influence the reproductive behaviour of lobsters (i.e. changes in mating patterns, migration, and spawning times) which can have implications for the reproductive success of populations.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content	Nil

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298	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:52	Claim	Relevant person stated that prolonged exposure to high temperatures can lead to physiological stress in lobsters which can compromise the immune system and result in higher susceptible to disease.	High	ConocoPhillips Australia reviewed 6.9.5.1 Physical Environment which assesses the impact of cooling water on marine water temperature, with localised impacts only.	No change to EP content	Nil
299	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:52	Claim	Relevant person stated that increasing water temperatures due to climate change can lead to shifts in the distribution and habitat preferences of lobsters.	Low	The objection or claim is not relevant to the adverse effects of the proposed Otway Exploration Drilling Program to which the Environment Plan relates and is beyond the scope of this assessment.	No change to EP content	Nil
300	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:53	Claim	Relevant person stated that changes in lobster populations can have cascading effects on marine ecosystems, and that altered lobster growth and behaviour can impact the food web dynamics of the ecosystem. Information was cited Fogarty et al., 2007.	High	ConocoPhillips Australia determined that no alterations were deemed necessary as there are no predicted changes to lobster populations as the result of the proposed Otway Exploration Drilling Program.	No change to EP content	Nil
301	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:53	Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback regarding crop yield reductions, disruption of forest ecosystems and melting of permafrost associated with heat stress and global warming	Low	ConocoPhillips Australia determined that no amendments to the EP were warranted as the objection or claim was not within the scope of the adverse effects of the proposed activity.	No change to EP content	Nil
302	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:55	Claim	Relevant person stated that high ocean temperatures can lead to coral bleaching which weakens the corals and can result in coral death. Information was cited Hughes et al., 2017.	Low	ConocoPhillips Australia determined that no alterations were deemed necessary as GHG emissions have previously been assessed in Chapter 6.5 of the EP.	No change to EP content	Nil
303	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:55	Claim	Relevant person stated that elevated temperatures in aquatic ecosystems can lead to shifts in species distributions, changes in predator-prey interactions, and disruptions in nutrient cycling. Information was cited Woodward et al., 2010.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	No change to EP content	Nil
304	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:55	Claim	Relevant person provided feedback regarding disturbed sediments carrying contaminants including heavy metals and hydrocarbons affecting water inlet pipes.	Low	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in disturbed sediments, as a result of the proposed activity, carrying contaminants including heavy metals and hydrocarbons affecting the water inlet pipes, and included information on heavy metals in section 6.8.5.1 Drill Cuttings and Fluid and a Baraite Standard in Table 6-40: Control measures for planned drilling discharges and ALARP demonstration.	6.8.5.1 Drill Cuttings and Fluids	Nil

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305	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:56	Claim	Relevant person stated that when drilling involves oil or hydrocarbon extraction, there's a risk of oil spills or leakage which can have severe impacts on water quality and marine life. Information was cited NRC, 2003.	High	ConocoPhillips Australia assessed the impacts of minor and major oil spills in the EP.	No change to EP content	Although ConocoPhillips initial assessment (in draft EP chapter 7.7) assigned a consequence rating to other marine and coastal users of minor, it is understood that for aquaculture facilities, closure of seawater intakes is likely to result in a loss of production with a moderate consequence. This change does not affect the risk rating of medium (RR II) for other marine and coastal users, but has been reflected in the Environment Plan.
306	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:56	Claim	Relevant person stated that drilling fluids and additives can contain various chemicals, such as biocides, lubricants, and corrosion inhibitors which can enter the water supply. Information was cited NASEM, 2020.	High	ConocoPhillips Australia conducted a review of relevant control measures CM09: Drilling Program and CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment were adequately assessed.	Review existing control measure/s: CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures	CM09: Drilling Program CM12: General and Hazardous Chemical Management Procedures
307	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:57	Claim	Relevant person stated that cooling water used in drilling processes may carry excess heat, which could affect the temperature and thermal characteristics of the water entering the hatchery. Information was cited Ruddick and Anctil, 2002.	High	ConocoPhillips Australia provided information on the impact assessment which predicted highly localised, temporary and recoverable impacts, as assessed in section 6.9.5.1 Physical Environment.	6.9.5.1 Physical Environment	Information
308	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:57	Claim	Relevant person provided feedback regarding heavy metals naturally present in rock formations being mobilised posing a risk to aquatic organisms.	Low	ConocoPhillips Australia provided information on the geological characteristics and lithology of the offshore Otway Basin, being typical of offshore marine sedimentary deposits (with high concentrations of heavy metals not typically associated with these lithologies or the geological processes that form them) and included information on heavy metals in section 6.8.5.1 Drill Cuttings and Fluid and a Baraite Standard in Table 6-40: Control measures for planned drilling discharges and ALARP demonstration	6.8.5.1 Drill Cuttings and Fluids	Information
309	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:58	Claim	Relevant person provided feedback regarding underwater noise and vibrations impacting aquatic species, especially the spiny rock lobster and their habitats.	High	ConocoPhillips Australia provided an overview of the underwater sound impact assessments relevant to southern rock lobster, with impacts from non-impulsive and impulsive sound restricted to within 10's to 170 metres of the sound source with negligible impacts, as addressed in sections 6.6.3 Exposure Criteria Thresholds, 6.6.6 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors, and 6.7.5 Identifying Sound-sensitive Receptors.	Addressed in section 6.6.3 Exposure Criteria Thresholds, 6.6.6 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors, 6.7.5 Identifying Sound-sensitive Receptors	Information
310	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:59	Claim	Relevant person provided feedback regarding resuspended sediments increasing turbidity, and negatively affecting photosynthesis of aquatic plants and phytoplankton.	Low	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as a result of the proposed activity, and that an increase in sediment intake through the intake inlet was not predicted as described in section 6.3.5.3.	Information was added to Section 6.3.5.3 Socio-economic Environment.	Information

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
311	3863, 3129	ID13:King Island Marine Research	28/08/2023 8:59	Claim	Relevant person provided feedback regarding increased sediment loads leading to clogging of filters and impacting the efficiency of hatchery water circulation systems.	Low	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as a result of the proposed activity, and that an increase in sediment intake through the intake inlet was not predicted as described in section 6.3.5.3	No change to EP content	Information
312	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:00	Claim	Relevant person provided feedback regarding the resuspension of sediments settling and accumulating within hatchery water intake pipes and increasing the frequency of maintenance or cleaning.	Low	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet, as a result of the proposed activity, resulting in an increase in the frequency of maintenance of cleaning, as described in section 6.3.5.3.	No change to EP content	Information
313	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:00	Claim	Relevant person provided feedback regarding the resuspension of sediments altering the water chemistry of hatcheries.	Low	ConocoPhillips Australia advised that as the petroleum activity is, at the closest possible location, approximately 27 km distant, there is no possible cause-effect pathway that could result in the resuspension of sediment within the vicinity of the water inlet altering the water chemistry of the hatchery. In addition, a Barite quality performance standard was added to CM12: Chemical Selection Process.	Additional environmental performance standard added to CM12: Chemical Selection Process, for a Barite Quality Standard: Barite will adhere to the IFC EHS guidelines (2015) effluent levels of 1 mg/kg of Hg (dry weight) and no more than 3 mg/kg of Cd (dry weight).	Additional environmental performance standard added to CM12: Chemical Selection Process, for a Barite Quality Standard:
314	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:01	Claim	"Relevant person stated that if sediments contain contaminants their resuspension can lead to increased contaminant concentrations in the water. Information was cited Gasiūnaitė and Lubytė, 2006."	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment were adequately considered.	Review existing control measure/s: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
315	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:01	Claim	Relevant person stated that increased sediment loads can impact the health of larva and juvenile lobsters in the hatchery by affecting feeding efficiency, respiratory structures, and overall survival.	High	ConocoPhillips Australia conducted a review of relevant control measure CM09: Drilling Program to ensure impacts to benthic communities were adequately assessed.	Review existing control measure/s: CM09: Drilling Program	CM09: Drilling Program
316	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:02	Claim	"Relevant person stated that chemical residues can alter water quality and potentially affect the properties of seawater and disrupt natural processes. Information was cited Yakimov et al., 2007."	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment were adequately considered.	Review existing control measure/s: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
317	3129, 3863	ID13:King Island Marine Research	28/08/2023 9:02	Claim	"Relevant person stated that chemical residues can be toxic to various marine organisms, including plankton, fish, and benthic organisms leading to cascading effects throughout the ecosystem. Information was cited Brooker et al., 2001."	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to sensitive receptors in the receiving marine environment were adequately considered.	Review existing control measure: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
318	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:04	Claim	"Relevant person stated that chemicals can bioaccumulate and biomagnify in the marine food web posing potential risks to both wildlife and human health Information was cited Fisk and Tomy, 2003."	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment were adequately considered.	Review existing control measure: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures

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319	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:04	Claim	"Relevant person stated that chemical residues can interfere with reproductive and developmental processes in marine organisms. Information was cited Tyler and Sumpter, 1996."	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment were adequately considered.	review of existing control measure: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
320	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:05	Claim	"Relevant person stated that chemical residues can lead to shifts in the composition of marine communities i.e. potential decline of sensitive species and dominance of tolerant species. Information was cited Jackson et al., 2016."	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to sensitive receptors in the receiving marine environment were adequately considered.	Review of existing control measure: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
321	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:05	Claim	Relevant person stated that the persistence of chemicals could cause long-term ecosystem effects. Information was cited Diaz and Rosenberg, 2008.	High	ConocoPhillips Australia conducted a review of relevant control measure CM12: General and Hazardous Chemical Management Procedures to ensure impacts to the receiving marine environment were adequately considered.	Review of existing control measure: CM12: General and Hazardous Chemical Management Procedures	CM12: General and Hazardous Chemical Management Procedures
322	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:06	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person provided feedbacks regarding spills to rivers impacting downstream hatcheries.	Low	ConocoPhillips Australia determined that no amendments to the EP were warranted as the objection or claim was not within the scope of the adverse effects of the proposed activity.	No change to EP content	Nil
323	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:07	Claim	Relevant person provided feedback regarding the potential for spilled substances to impact water quality which may subsequently affect the health and growth of hatchery organisms.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	No change to EP content	Nil
324	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:07	Claim	Relevant person provided feedback regarding the potential for spilled substances to have toxic effects (i.e. mortality, reduced growth, developmental abnormalities) on aquatic organisms, including those in hatcheries.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	No change to EP content	Nil
325	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:08	Claim	Relevant person provided feedback regarding the potential for spilled substances to impact the reproductive success of hatchery organisms, subsequently affecting the hatchery's ability to replenish its stocks.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	No change to EP content	Nil
326	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:08	Claim	Relevant person provided feedback regarding the potential for spilled substances to bioaccumulate and biomagnify in the food chain leading to higher concentrations of contaminants in hatchery organisms. Subsequently this could pose a risk to the organisms and those that consume them.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	7.3.5.3 Socio-economic Receptors impact assessment included in EP.	Information

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327	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:08	Claim	Relevant person provided feedback regarding the potential for spilled substances to impact the physical characteristics of the aquatic environment (i.e. sediment deposition, alteration of substrate composition) subsequently impacting the availability of suitable habitat conditions for hatchery organisms.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	7.3.5.3 Socio-economic Receptors impact assessment included in EP.	Information
328	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:09	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback regarding the impacts of river spills on hatcheries, including closures, reduced production, mortality, all resulting in economic losses for hatchery operators and the communities relying on products.	Low	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations to the EP were deemed necessary as there is no proposed activities which will occur within river systems.	No change to EP content	Nil
329	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:09	Claim	Relevant person provided feedback regarding the potential for spilled substances to cause genetic damage in hatchery organisms, subsequently affecting their overall genetic diversity and fitness.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	7.3.5.3 Socio-economic Receptors impact assessment included in EP.	Information
330	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:10	Claim	Relevant person provided feedback regarding the potential for spilled substances to persist in the environment and result in long-term impacts to the ecosystem, food web dynamics and community structure which the hatchery relies on.	High	ConocoPhillips Australia determined that impacts assessed in Discharge Chapters (6.8 and 6.9) and Accidental release Chapters (7.3, 7.6 and 7.7) were adequately assessed and supported by recent, relevant research, and added 7.3.5.3 Socio-economic Receptors.	7.3.5.3 Socio-economic Receptors impact assessment included in EP.	Information
331	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:10	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person informed that hydraulic fracturing involves the injection of a mixture of water, sand, and chemicals into underground rock formations to release gas. Relevant person stated that if these chemicals migrate through groundwater or surface water pathways, they could potentially contaminate the ocean, affecting marine ecosystems.	Low	ConocoPhillips Australia determined that no alterations to the EP were necessary as the Otway Exploration Drilling Program covers short-term, temporary seabed surveys and exploration drilling and will not be using hydraulic fracturing for the drilling of wells.	No change to EP content	Nil
332	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:11	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person stated that chemicals used in fracking fluids, could potentially leach into groundwater, rivers, or estuaries, eventually reaching the ocean which could harm marine life and disrupt marine ecosystems.	Low	ConocoPhillips Australia determined that no alterations to the EP were necessary as the Otway Exploration Drilling Program covers short-term, temporary seabed surveys and exploration drilling and will not be using hydraulic fracturing for the drilling of wells.	No change to EP content	Nil
333	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:11	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback regarding the production of large quantities of water produced by natural gas extraction. Relevant person stated that the produced water contains fracking chemicals, salts, heavy metals, and radioactive materials and that improper disposal of produced water can lead to ocean contamination and harm marine organisms.	Low	ConocoPhillips Australia determined that no alterations to the EP were necessary as the Otway Exploration Drilling Program covers short-term, temporary seabed surveys and exploration drilling and will not be using hydraulic fracturing for the drilling of wells.	No change to EP content	Nil

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334	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:12	Claim;Not within scope of the adverse affects of the proposed activity	Relevant person provided feedback regarding gas drilling operations, specifically those involving hydraulic fracturing, and the potential for these to induce seismic activity disturbing the marine environment and coastal areas.	Low	ConocoPhillips Australia determined that no alterations to the EP were necessary as the Otway Exploration Drilling Program covers short-term, temporary seabed surveys and exploration drilling and will not be using hydraulic fracturing for the drilling of wells.	No change to EP content	Nil
335	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:12	Claim	Relevant person provided feedback regarding the construction and installation of subsea structure and their impacts to marine habitats and ecosystems.	Low	ConocoPhillips Australia determined that no alterations to the EP were necessary as the Otway Exploration Drilling Program is purely exploratory with no proposed installation of permanent operating infrastructure.	No change to EP content	NIL
336	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:13	Claim	Relevant person provided feedback regarding methane emissions associated with the drilling program and their contribution to climate change, specifically impacts to the marine environment.	High	ConocoPhillips Australia provided information on the assessment of emissions generated as part of the activity which are small when compared to national emissions, insignificant on a global scale and are not predicted to have determinable impacts.	No change to EP content	Nil
337	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:14	Claim	Relevant person provided feedback regarding accidental releases of gas, drilling fluids and chemicals which have the potential to negatively impact organisms and systems in the marine environment.	High	ConocoPhillips Australia provided an overview of relevant risk assessments which demonstrated impacts were ALARP and of acceptable levels.	No change to EP content.	Nil
338	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:14	Claim	Relevant person provided feedback that activities associated with the program which generate underwater noise may disrupt critical behaviours of marine organisms.	High	ConocoPhillips Australia provided an overview of relevant impact assessments which demonstrated impacts were ALARP and of acceptable levels and added feedback to Table 4-29 Victorian Southern Rock Lobster Fishery.	Feedback was received during consultation regarding exploration activities effecting lobsters and their habitat. ConocoPhillips Australia clarified that the activity presented in the Environment Plan is for short-term, temporary seabed surveys and exploration drilling with no cause-effect pathways identified for impacts to the long-term sustainability of the fishery. Table 4-29 Victorian Southern Rock Lobster Fishery	Nil
339	3863, 3129	ID13:King Island Marine Research	28/08/2023 9:16	Claim	Relevant person provided feedback regarding exploration activities hampering the growth and reproduction of the spiny rock lobster and damage to its habitat affecting GDP and long-term sustainability of this resource.	High	ConocoPhillips Australia provided an overview of relevant impact assessments which demonstrated impacts were ALARP and of acceptable levels.	No change to EP content	Nil
340	3823, 3257	ID553:Australian Parents For Climate Action (North Tas and Surf Coast)	22/08/2023 15:53	Claim	Relevant person provided feedback regarding how the GHG emissions for the project were measured by the current project scope and not the complete life of the asset.	Low	ConocoPhillips Australia determined that no alterations to the EP were deemed necessary as the Otway Exploration Drilling Program is purely exploratory with no proposed installation of permanent operating infrastructure.	No change to EP content	Nil
341	3257, 3823	ID553:Australian Parents For Climate Action (North Tas and Surf Coast)	22/08/2023 15:54	Claim	Relevant person stated that the north-west of Tasmania is a key biodiversity area and suggested that the precautionary principle be applied when assessing potential impacts to biodiversity when considering the development of these areas.	High	ConocoPhillips Australia determined that no alterations were deemed necessary as the EP was developed in consideration of the precautionary principle.	No change to EP content	Nil

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342	3257, 3823	ID553:Australian Parents For Climate Action (North Tas and Surf Coast)	22/08/2023 15:55	Claim	Relevant person suggested that the precautionary approach should be applied to light and flaring activities, as there are potential impacts to migratory, critically endangered birds for example the orange-bellied parrot, and the bogong moth.	High	ConocoPhillips Australia reviewed the EP, in particular the control measures associated with light emissions to ensure that any potential impacts to light sensitive species are adequately mitigated and added information at section 4.6.11 Terrestrial Invertebrates and 6.4.4 and 6.4.5.1.	Information added at section 4.6.11 Terrestrial Invertebrates and 6.4.4 and 6.4.5.1	Information
344	4227, 3432	ID462:Mahina Bay Fishing Co Pty Ltd	5/09/2023 10:22	Claim	Relevant person provided feedback regarding the proximity of the activity to Portland as this is a main fishing ground and displacement would cause increased costs for the fishing business.	High	ConocoPhillips Australia committed to developing an Adjustment Protocol in consultation with peak fishing associations and individual fishers to ensure that claims of fishers can be assessed and compensated (CM04: Commercial Marine Operators Adjustment Protocol).	Review exiting control/s: CM04: Commercial Marine Operators Adjustment Protocol	CM04: Commercial Marine Operators Adjustment Protocol
345	3469, 4271	ID569:Tasmanian Climate Collective	20/09/2023 10:59	Claim	Relevant person stated that they would like to see the opportunity for compensation extended to other industries as many of the impacts of oil and gas exploration may not be black and white.	High	"ConocoPhillips Australia has reviewed feedback provided by relevant person and conducted a review relevant control measures (CM01, CM02, CM03, CM04, CM06 and CM10) to ensure that potential impacts to various industries are adequately assessed. Further, information in section 6.2.4.1 (Table 5-6) of the EP was updated."	The impact assessment and measures to mitigate impacts associated with interference with other marine and coastal users is detailed in section 6.2, and information was updated in section 6.2.4.1 and Table 6-5 of the EP. Control measures adopted to minimise impacts are included in the EP as follows: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM03: Marine and Coastal User Consultation and Communication Plan CM04: Commercial Marine Operators Adjustment Protocol CM06: MODU Mooring Plan CM10: Well Testing Program	Control measures adopted to minimise impacts are included in the EP as follows: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM03: Marine and Coastal User Consultation and Communication Plan CM04: Commercial Marine Operators Adjustment Protocol CM06: MODU Mooring Plan CM10: Well Testing Program

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346	3469, 4271	ID569:Tasmanian Climate Collective	20/09/2023 11:00	Claim	Relevant person stated that the proposed activity has the potential to significantly impact cultural sites and values across north-west Tasmania including seasonal mutton birding, traditional shellfish harvesting, connection to country and traditional cultural practice.	High	ConocoPhillips Australia confirmed that information on the cultural importance of shearwaters is included in section 4.6.7.2. Further, measures to mitigate impacts associated with light emissions, relevant to shearwater and their prey, are detailed in section 6.4. In response to consultation feedback, ConocoPhillips Australia included an additional EPO, including measures (CM05: Cultural Heritage Protection Program) and performance standards, regarding cultural heritage: EPO12: ConocoPhillips Australia will establish and maintain a culturally responsible and legally compliant framework for cultural heritage protection within the project areas to amplify indigenous voices for the promotion and protection of country and culture.	Information on the cultural importance of shearwaters is included in draft EP chapter 4, section 4.6.7.2 and does not require updating. The impact assessment and measures to mitigate impacts associated with light emissions, relevant to shearwater and their prey, are detailed in section 6.4, and does not require updating. control measures adopted to protect shearwaters and their prey are included in the EP as follows: CM01 CM02 CM07 and CM10. An additional EPO, and measures and performance standards have been developed in response to consultation feedback regarding cultural heritage: - EPO12: ConocoPhillips Australia will establish and maintain a culturally responsible and legally compliant framework for cultural heritage protection within the project areas to amplify indigenous voices for the promotion and protection of country and	CM01: Marine Assurance Process: AMSA Marine Orders 21 and 30 for the safety of navigation and prevention of collisions require that onboard navigation, watchkeeping, radar equipment, and lighting meets the International Rules for Preventing Collisions at Sea (COLREGs) and industry standards. In addition, workplace lighting is required to support safe working conditions at night in accordance with health and safety requirements. CM02: Vessel and MODU Operation Procedures and CM 07: A Light Management Plan will be developed and implemented, as per the National Light Pollution Guidelines for Wildlife (CoA 2023), for the activity. CM10: Well Testing Program: Flaring will be limited to a maximum of 120 hours per well. For each well test, the initial flaring event will commence during daylight hours to reduce the impact of the initial event. However, the timing of subsequent events at each well will be determined by operational safety and testing requirements. CM05: Cultural Heritage Protection Program
347	3469, 4271	ID569:Tasmanian Climate Collective	20/09/2023 11:01	Claim	Relevant person stated that there are a resident population of blue whales and sightings of sperm whales off the western coast of Tasmania in the T/49P permit area (highest October/November). Further, this is a tourism draw for the coastal communities of King Island and NW Tasmania.	High	ConocoPhillips Australia conducted a review of relevant control measures CM08: Whale Management Plan and CM05: Cultural Heritage Protection Plan to ensure impacts to cetacean species, particularly the blue whale and sperm whale, were adequately assessed. Further, Section 4.7.5.1 (Tourism - Tasmania) was updated to reflect the information provided.	Review of impacts and risk assessment specific to blue whales and sperm whales, and existing control measures with particular focus on: CM02: Vessel and MODU Operating Procedure CM08: Whale Management Plan Updated section 4.7.5.1 of the Environment Plan to reflect information provided as follows: “During consultation it was identified that coastal tourist towns like Stanley and Boat Harbour regularly attract visitors to look for whales, in the usually quiet winter months, where they have experienced southern right whales close to shore for extended periods (Tasmanian Climate Collective, 2023)."	CM02: Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and Wildlife (Marine Mammals) Regulations 2009 and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore interactions with vessels and helicopters. CM08: Whale Management Plan
348	4271, 3469	ID569:Tasmanian Climate Collective	20/09/2023 11:03	Claim	Relevant person considered no impacts are acceptable to the Zeehan Marine Park and emphasised the importance of marine parks for the conservation of biodiversity and for a baseline for environmental studies.	High	ConocoPhillips Australia provided information in the EP (e.g. Section 4.4.1.1) on the multiple use zone and requirements for consultation with the relevant authority, and an overview of the assessments relevant to the marine park which demonstrated impacts to the Zeehan Marine Park from short term seabed survey and exploration drilling activities are acceptable and, through the adoption of control measures as described in the draft EP, as low as reasonably practicable for the proposed Otway Exploration Drilling Program.	No change to EP content	Nil

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349	3469, 4271	ID569:Tasmanian Climate Collective	20/09/2023 11:02	Claim	Relevant person provided feedback regarding negative impacts on tourism and the Tasmanian Brand.	High	" ConocoPhillips Australia provided an overview of the assessment of impact to aesthetic values and visual amenity and the extent to which coastal recreation and tourism in Tasmania is likely to be affected by the visibility of the derrick and main deck of the drilling rig is short-duration, which is fully recoverable with no long-term impacts to visual amenity or aesthetic values. "	No change to EP content.	Nil
354	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 13:48	Claim	Relevant person provided feedback regarding the assessment of risks as some assessed as 'moderate' are under-represented, and expressed confusion regarding the risk matrix, particularly the likelihood assessment being focused on what has or hasn't happened over a 12 month period.	High	ConocoPhillips Australia provided clarification and determined that no alterations were deemed necessary as the ConocoPhillips impact and risk methodology meets the requirements of the Environment Regulations and is consistent with relevant industry guidelines.	No change to EP content.	Nil
355	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:15	Claim	Relevant person provided feedback that limited consideration of assessments to the past 12 months (for likelihood) is a deliberate effort to work the numbers in favour of approval. Relevant person queried if there is a conflation of impacts and risks.	High	ConocoPhillips Australia provided clarification and determined that no alterations were deemed necessary as the ConocoPhillips impact and risk methodology meets the requirements of the Environment Regulations and is consistent with relevant industry guidelines.	No change to EP	Nil
356	4270, 3785	ID111:Australian Marine Conservation Society	22/09/2023 17:17	Claim	Relevant person requested confirmation that Conservation Advice was used to assess acceptability; disagreed with the process for comparing predicted impacts with acceptable levels, considered that assessments of acceptability in the draft EP did not consider feedback from relevant persons, and that any and all benefits that can be gained to protect coastal areas around a WHA should not be defined as negligible.	High	ConocoPhillips Australia provided information regarding: Conservation Advice's being included in impact and risk assessments; the impact assessment process which takes into consideration the condition of the existing environment; the intent of providing draft EP chapters to support consultation and generate feedback for consideration in the EP; and an overview of the impact assessment for the coastal section of the TWWHA, with low thresholds represent sub-lethal concentrations of hydrocarbons and are not predicted to result in ecological effects.	No change to EP content	Nil

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357	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:18	Claim	"Relevant person provided feedback regarding the lack of drill siting detail prevented them from being able to adequately understand and provide feedback. Further, relevant person provided feedback regarding the potential for drilling activity within Zeehan marine park and requested environmental monitoring mitigation measures be considered, including the collection of baseline data. "	High	"ConocoPhillips Australia reviewed impact Chapter 6.3 (Seabed Disturbance) and reiterated the importance of existing control measure CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values in the EP. During consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further analysis and has included this requirement in the procurement process for the seabed survey (CM11: Procurement Vetting Process). Previous advice had been provided on the conservative assessment process over the broader operational areas and updates to section 1.4 of the EP to provide clarity."	Reiteration of the importance of existing control measures CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values. During consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further analysis. The cost and effort to retain samples collected during the seabed survey, with storage and transport for onshore analysis, are considered to be reasonable and this requirement will include this in the procurement process for the seabed survey. Adopt CM11: Procurement Vetting Process (with onshore processing). Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources	CM06: MODU Mooring Plan Development of a MODU mooring plan to ensure: •The mooring spread and anchor locations is appropriate for the environment •Adequate tensioning of mooring is applied and maintained •Anchors are located within the 2 km radius drilling areas (within the operational areas) •Seabed relief and sensitive seabed features are considered. Seabed surveys will be undertaken prior to finalising MODU position and location of mooring equipment, and prior to installing or removing the wellhead. These details will inform the well location and minimise impacts to the benthic environment and sensitive receptors at all locations. Section 572 of the OPGGS Act details the requirements for removal of property. Upon well abandonment, all subsea equipment shall be removed from sea floor, with wellheads cut below mudline and retrieved to surface. Retrieval of all mooring equipment from the sea floor within 3 months following the completion of the drilling campaign.
358	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:21	Claim	Relevant person suggested that Chapter 7.3 (Minor LOC) did not adequately assess the impacts of a minor LOC to the receiving environment. It was requested for additional scientific evidence to be incorporated.	High	ConocoPhillips Australia determined that Minor Loss of Containment impacts (Chapter 7.3) were adequately assessed and supported by recent, relevant research. Therefore no alterations to the EP were deemed necessary.	No change to EP content	Nil
359	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:22	Objection	"Relevant person stated that the EP acknowledges oil pollution as a threat in the marine park management plan however then to go on to simply disagree with the very clear statement as it applies to its proposal. Relevant person stated that they strongly disagree with this assertion and suggest that ConocoPhillips Australia make no material justification for why its proposed activities in Zeehan MP are not inconsistent with this management plan as any drilling programs within the Zeehan marine park are inconsistent with the management plan and therefore have an unacceptable impact."	High	ConocoPhillips Australia determined that impacts related to a Minor Loss of Containment Chapter (7.3), specifically to the Zeehan Marine Park, were adequately assessed and supported by recent, relevant research. Therefore no alterations to the EP were deemed necessary.	No change to EP	Nil
360	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:23	Claim	Relevant person considers the introduction of a new minor oil spill risk within the Zeehan MP to be unacceptable and that serious control measures are necessary, such as no drilling within the AMP or including a reasonable buffer area. Further, relevant person stated the absence of drill locations makes it difficult to properly assess impacts across the entire potential impact area.	High	ConocoPhillips Australia conducted a review of controls measures relevant to the mitigation of risks associated with minor spills, specifically in the Zeehan Marine Park, to ensure that risks were adequately considered and updated the EP to ensure this was explicit where relevant. It was determine that the assessment in the Minor Loss of Containment Chapter (7.3) was adequate and supported by recent, relevant research. Previous advice had been provided on the conservative assessment process over the broader operational areas and updates to section 1.4 of the EP to provide clarity.	Existing proposed control measures were reviewed and confirmed as appropriate, including: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA accepted Oil Pollution Emergency Plan (OPEP)	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA accepted Oil Pollution Emergency Plan (OPEP)

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361	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:24	Objection	Relevant person considered activities outside of the petroleum activity be considered in the EP.	High	ConocoPhillips Australia reviewed and confirmed that appropriate control measures are in place within operational areas for petroleum activities, and provided information to relevant person on legislation relevant to other maritime activities.	We reviewed and confirmed that appropriate control measures are in place within operational areas for petroleum activities including: CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Marine Mammal Adaptive Management Plan - Marine mammal observers: •A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. •In addition, facility crew who act as Officer	Reviewed and confirmed appropriate control measures are in place within operational areas for petroleum activities including: CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Marine Mammal Adaptive Management Plan - Marine mammal observers: •A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. •In addition, facility crew who act as Officer of the Watch will receive training from the
362	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:25	Request	Relevant person requested that they are provided with data that has been used to determine presence of cetaceans within the EMBA, including interactions and/or shutdowns that occurred during its recent seismic blasting operation.	High	ConocoPhillips Australia provided information on the collection and use of data on cetacean presence in the operational areas since 2021; that data has been made available to government agencies and research organisations and has been used to inform the development of the Environment Plan, for example see section 4.6.9.2 of the draft Environment Plan.	No changes to EP content	Nil
363	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:27	Claim	Relevant person provided feedback that cetacean presence was underestimated during the previous Sequoia seismic survey and that species were present within the operational area during the survey. Relevant person suggests that additional mitigation measures would provide additional environmental benefits of reducing vessel strike.	High	ConocoPhillips Australia provided reference to ConocoPhillips Australia's data used in the assessment and determined that further alterations to the EP were deemed necessary as appropriate, industry standard, mitigation measures relating to interactions with marine fauna were adopted by the Otway Exploration Drilling Program.	Reference to use of data collected between 2021-23 included.	Information

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364	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:28	Objection	"Relevant person disagreed with ConocoPhillips Australia's assessment that the South-East Commonwealth Marine Reserves Network Management Plan does not (currently) include vessel strike as a pressure on Zeehan Marine Park, and considered this represents a new threat."	High	ConocoPhillips Australia advised that petroleum exploration activities have been conducted in the South-east marine region since the 1960's, well before the 2013 publication of the current MP and that the Director of National Parks had been consulted as a relevant authority for the management of the Zeehan Marine Park.	"Reviewed and confirmed appropriate control measures are in place within operational areas for petroleum activities including: CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Whale Management Plan- Marine mammal observers: •A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. •In addition, facility crew who act as Officer of the Watch will receive training from the	"CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Whale Management Plan - Marine mammal observers: "
365	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:33	Objection	Relevant person stated that ConocoPhillips Australia did not provide sufficient data to dismiss vessel strike mitigation measures, particularly that activities only occur outside of environmentally sensitive periods. Relevant person suggested that a detailed assessment be made to determine whether the exclusion of specific biologically important windows would reduce risks to key species. Relevant person stated that not being able to reduce the impact on all species is not a justification for the rejection of this control measure.	High	"ConocoPhillips Australia updated Section 6.6.7 in Chapter 6.6 (Non-Impulsive Noise) to provide clarity around the process followed to assess the variability of timing. Further, ConocoPhillips Australia made commitments to implement a Marine Mammal Adaptive Management Plan that includes whale detection and mitigation measures to minimise anthropogenic noise threats to whales. These measures will effectively reduce the likelihood of vessel strike and have been referred to Table 7-8."	Updated section 6.6.7 of the draft EP to include: If an offshore project or activity creates noise above relevant published injury and/or behavioural disturbance impact criteria inside a Foraging Area, NOPSEMA advises that titleholders should firstly evaluate all feasible measures to avoid times of the year when blue whales are likely to be foraging. ConocoPhillips Australia has determined that the risk to all listed marine fauna cannot be avoided due to variability in timing of environmentally sensitive periods and unpredictable presence of some species, with blue whales typically present in foraging areas in higher numbers between November and May, and southern right whale typically present in Australian waters from early April to early November. Therefore, there is no period where avoidance of both species is possible. If it is not possible to avoid times sensitive times of year, there are requirements of the EPBC Act and the NOPSEMA EPBC Act-endorsed Program that constrain decision makers to 'not act inconsistently' with EPBC Act instruments, such as a recovery plan (e.g.	Additional information added to section 6.6.7 of the EP to provide clarify around the process followed to assess the variability of timing. Measures adopted for underwater sound also effectively reduce the likelihood of vessel strike and have been referred to Table 7-8.

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
366	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:30	Objection	Relevant person queried whether reporting vessel strike to the NVSD is a mitigation measure and requested confirmation that this is a legal requirement rather than a voluntary mitigation measure. Relevant person requested for ConocoPhillips Australia to explain how reporting strikes mitigates the risk.	High	ConocoPhillips Australia updated Table 7-8 in Chapter 7.4 (Interaction with Marine Fauna) to remove the control measure and refer the reader to the Implementation Strategy (Table 10-8) for information on the reporting of vessel strikes.	Table 7-8 was updated to remove the control measure and now refers to "Reporting requirements for vessel strikes with cetaceans are included in the Implementation Strategy (Table 10-8)."	Table 7-8 was updated to remove the control measure and now refers to "Reporting requirements for vessel strikes with cetaceans are included in the Implementation Strategy (Table 10-8)."
367	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:31	Request	Relevant person requested that all relevant persons are informed of reportable incidents and changes made to the EP, including any identification of new or altered impacts or risks associated with the proposal.	High	ConocoPhillips Australia will act in accordance with the requirements for ongoing consultation as detailed in Table 10.5 of the Implementation Strategy.	Ongoing consultation requirements are detailed in the Implementation Strategy - Table 10-5.	Ongoing consultation requirements are detailed in the Implementation Strategy - Table 10-5.
368	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:32	Claim	Relevant person provided feedback regarding a lack of connection between the EP and ConocoPhillips Australia's Biodiversity Policy.	High	ConocoPhillips Australia updated section 10.1.2.3 to include information directly relevant to the Otway Exploration Drilling Program.	We believe we continue to demonstrate strong alignment with our biodiversity position and have updated the information in section 10.1.2.3, to reflect this in response to this claim, where relevant to the Otway Exploration Drilling Program, as detailed below: •Applying a science-based approach and considering cumulative effects to develop leading best practices as described through-out the impact and risk assessment Environment Plan chapters and Cumulative Impact Assessment chapter. •Collecting data and information on local biodiversity through site assessments and baseline studies through the implementation of multi-year marine mammal survey program, the completion of studies on giant crabs and southern rock lobsters and by supporting citizen science and coastal southern right whale research programs. •Developing indicators and metrics to track biodiversity impacts and risk management performance through the development of control measures, environmental performance standards and measurement criteria.	"The information in section 10.1.2.3 was updated to reflect the response to this claim, where relevant to the Otway Exploration Drilling Program. "

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369	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:34	Claim	"Relevant person stated that the timeline for seeking approval is rushed and that the information provided in the draft EP is lacking in details that would provide further insights into impacts and mitigation measures. Relevant person stated that they are of the opinion that approval of the EP should not be sought until drilling locations have been finalised,"	High	"ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. Additionally, ConocoPhillips Australia incorporated its position regarding the appropriateness of term of the EP in Section 1.4, and considers that it is essential to include the full scope of the proposed activities in the EP to ensure relevant person are able to make an informed assessment of potential impacts to their function, interests and activities."	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4
370	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:35	Objection	Relevant person considered that drilling within the Zeehan Marine Park would affect benthic habitats, the integrity of the marine park, migratory species, elasmobranch species including the maugean skate and would result in impacts from a spill with more information needed as drill locations were not provided.	High	ConocoPhillips Australia provided an overview of the activities that may be permitted within the multiple use zone of the Zeehan Marine Park and the need to consult with the Director of National Parks; and provided an overview of the assessment of impacts to the Zeehan Marine Park and the selection of modelling locations for assessing the risks associated with a spill.	Provided overview of assessment for Zeehan Marine Park. Additional information has been included in Environment Plan sections 7.6.2 and 7.7.2 regarding the selection of modelled locations: “RPS conducted modelling for activities across three broad areas during the exploration program, being the northern extent of VIC/P79, the southern extent of VIC/P79 and across T/49P (Appendix E). The locations were selected to be representative of all potential activity locations within the operational areas based on water depth, proximity to the coast and continental slope.”	Additional information has been included in Environment Plan sections 7.6.2 and 7.7.2 regarding the selection of modelled locations: “RPS conducted modelling for activities across three broad areas during the exploration program, being the northern extent of VIC/P79, the southern extent of VIC/P79 and across T/49P (Appendix E). The locations were selected to be representative of all potential activity locations within the operational areas based on water depth, proximity to the coast and continental slope.”

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371	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:36	Request	Relevant person requested clarification regarding the Tasmanian lease as during consultation it was stated that there was a high likelihood that all 6 wells would occur within the Victorian lease. Relevant person queried if this were true, and if so why it was not indicated in the draft documents for relevant persons to engage with in this consultation phase.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4:
372	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:37	Claim	Relevant person advised that ConocoPhillips should consider how selecting different drill sites might mitigate risks to the environment as the current approach of seeking approval for 6 sites anywhere within the OA, without specifying precise location, does not enable relevant persons to fully understand the specific impacts and risks to their functions, interests and activities.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4:

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373	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:38	Claim	"Relevant person stated that the current approach enables unspecific and potentially inaccurate statements made in the draft EP, for example: “The risk to all listed marine fauna cannot be reduced due to variability in timing of environmentally sensitive periods ...”. Relevant person provided feedback as these claims are difficult to understand or respond to, as these cannot be properly supported, or interrogated, in the absence of precise drill site location options. "	High	"ConocoPhillips Australia has reviewed feedback provided by relevant person and updated Section 6.6.7 in Chapter 6.6 (Non-Impulsive Noise) to provide clarity around the process followed to assess the variability of timing. Further, ConocoPhillips Australia made commitments to implement a Marine Mammal Adaptive Management Plan that includes whale detection and management measures to minimise anthropogenic noise threats to whales. These measures effectively reduce the likelihood of vessel strike and have been referred to Table 7-8."	Updated section 6.6.7 of the draft EP to include: If an offshore project or activity creates noise above relevant published injury and/or behavioural disturbance impact criteria inside a Foraging Area, NOPSEMA advises that titleholders should firstly evaluate all feasible measures to avoid times of the year when blue whales are likely to be foraging. ConocoPhillips Australia has determined that the risk to all listed marine fauna cannot be avoided due to variability in timing of environmentally sensitive periods and unpredictable presence of some species, with blue whales typically present in foraging areas in higher numbers between November and May, and southern right whale typically present in Australian waters from early April to early November. Therefore, there is no period where avoidance of both species is possible. If it is not possible to avoid times sensitive times of year, there are requirements of the EPBC Act and the NOPSEMA EPBC Act-endorsed Program that constrain decision makers to ‘not act inconsistently’ with EPBC Act instruments, such as a recovery plan (e.g.	Additional information added to section 6.6.7 of the EP to provide clarify around the process followed to assess the variability of timing.
374	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:39	Claim	Relevant person provided feedback regarding the 5-year term of the EP, specifically in consideration of escalating climate change and the impacts this may have on climate sensitive marine receptors.	High	"ConocoPhillips Australia incorporated its position regarding the appropriateness of term of the EP in Section 1.4, and considers that it is essential to include the full scope of the proposed activities in the EP to ensure relevant person are able to make an informed assessment of potential impacts to their function, interests and activities. ConocoPhillips Australia has specified the ongoing review process in the Implementation Strategy, particularly section 10.2.7 Management of Change, whereby emerging and escalating issues are required to be taken into consideration for the term of the EP (including changes in legislation, science and associated changes to impact and risk assessments and ongoing consultation) in order to maintain impacts to ALARP and acceptable levels."	Section 1.4 of the EP has been updated to reflect ConocoPhillips Australia position regarding this feedback: - Presenting the full extent of ConocoPhillips Australia's proposed activities allows for the full consideration of impacts and risks across the broadest possible spatial and temporal extents on one occasion is considered preferable and aims to reduce consultation burden when compared to the alternative of developing multiple environment plans for a reduced number of specific drilling locations, without consideration of feedback from consultation or disclosure of the full extent of the proposed Otway Exploration Drilling Program.. Requirements to maintain the currency of the EP are reflected in the Implementation Strategy, namely section 10.2.7 Management of Change, and control measure CM09: Drilling Program which require assessment against the management of change process prior to the commencement of the drilling campaign and during the campaign to maintain an acceptable level/ALARP.	This requirement is reflected in the Implementation Strategy, namely section 10.2.7 Management of Change, and control measure CM09: Drilling Program which require assessment against the management of change process prior to the commencement of the drilling campaign and during the campaign to maintain an acceptable level/ALARP.
375	3785, 4270	ID111:Australian Marine Conservation Society	22/09/2023 17:40	Claim	Relevant person considered activities outside of the petroleum activity be considered in the EP.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations to the EP were deemed necessary.	No change to EP	Nil

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376	3480, 4527	ID524:Wilderness Society	22/09/2023 21:40	Claim	Relevant person provided feedback regarding the timeline ConocoPhillips is seeking approval for the proposed drilling program as approval should not be sought until proposed drilling locations have been determined. Relevant person expressed specific concern regarding the overlap of the project area with Zeehan marine park as drilling would likely impact (benthic habitats, integrity of the marine park, migratory species).	High	"ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational area ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. Additionally, ConocoPhillips Australia incorporated its position regarding the appropriateness of term of the EP in Section 1.4, and considers that it is essential to include the full scope of the proposed activities in the EP to ensure relevant person are able to make an informed assessment of potential impacts to their function, interests and activities."	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to
377	3480, 4527	ID524:Wilderness Society	22/09/2023 21:41	Claim	Relevant person provided view that it was preferrable to specify precise drilling locations.	High	ConocoPhillips Australia provided feedback to the relevant person on the process for selecting drilling locations; the conservative approach taken to ensure impacts and risks associated with all potential survey and drilling locations are assessed; the precautionary approach taken to apply control measures across the board to minimise impacts and risks to acceptable levels that are as low as reasonably practicable; and considers that presenting the full extent of the proposed activity allows for the full consideration of impacts and risks and feedback from consultation across the broadest possible spatial and temporal extents.	Updates made to section 1.4 of the EP address previous comments related to lack of defined drill locations. Further, section 6.6.7 of the draft EP was updated to include: If an offshore project or activity creates noise above relevant published injury and/or behavioural disturbance impact criteria inside a Foraging Area, NOPSEMA advises that titleholders should firstly evaluate all feasible measures to avoid times of the year when blue whales are likely to be foraging. ConocoPhillips Australia has determined that the risk to all listed marine fauna cannot be avoided due to variability in timing of environmentally sensitive periods and unpredictable presence of some species, with blue whales typically present in foraging areas in higher numbers between November and May, and southern right whale typically present in Australian waters from early April to early November. Therefore, there is no period where avoidance of both species is possible. If it is not possible to avoid times sensitive times of year, there are requirements of the EPBC Act and the NOPSEMA EPBC Act-endorsed Program that constrain decision	Additional information added to section 6.6.7 of the EP to provide clarify around the process followed to assess the variability of timing.

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378	3480, 4527	ID524:Wilderness Society	22/09/2023 21:43	Objection	Relevant person advised that they believe combining a 5-year drilling program into one EP is inappropriate, specifically in the context of escalating impacts of climate change on marine environments and threatened marine species. Relevant person provided feedback that the receiving environment of this proposal could change significantly over the life of the proposed project.	High	"ConocoPhillips Australia has incorporated its position regarding the appropriateness of the term of the EP in Section 1.4, and considers that it is essential to include the full scope of the proposed activities in the EP to ensure relevant person are able to make an informed assessment of potential impacts to their function, interests and activities. ConocoPhillips Australia has specified the ongoing review process in the Implementation Strategy, particularly section 10.2.7 Management of Change, whereby emerging and escalating issues are required to be taken into consideration for the term of the EP (including changes in legislation, science and associated changes to impact and risk assessments and ongoing consultation) in order to maintain impacts to ALARP and acceptable levels."	Section 1.4 of the EP has been updated to reflect ConocoPhillips Australia position regarding this feedback: - Presenting the full extent of ConocoPhillips Australia's proposed activities allows for the full consideration of impacts and risks across the broadest possible spatial and temporal extents on one occasion is considered preferable and aims to reduce consultation burden when compared to the alternative of developing multiple environment plans for a reduced number of specific drilling locations, without consideration of feedback from consultation or disclosure of the full extent of the proposed Otway Exploration Drilling Program.. Requirements to maintain the currency of the EP are reflected in the Implementation Strategy, namely section 10.2.7 Management of Change, and control measure CM09: Drilling Program which require assessment against the management of change process prior to the commencement of the drilling campaign and during the campaign to maintain an acceptable level/ALARP.	This requirement is reflected in the Implementation Strategy, namely section 10.2.7 Management of Change, and control measure CM09: Drilling Program which require assessment against the management of change process prior to the commencement of the drilling campaign and during the campaign to maintain an acceptable level/ALARP.
379	3480, 4527	ID524:Wilderness Society	22/09/2023 21:44	Objection	Relevant person considered activities outside of the petroleum activity be considered in the EP.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations to the EP were deemed necessary.	No change to EP	Nil
380	3480, 4527	ID524:Wilderness Society	22/09/2023 21:46	Claim	Relevant person provided feedback regarding the assessment of risks associated with the proposal as some risks assessed as 'moderate' are under-represented. Relevant person expressed confusion regarding the risk matrix and queried why the likelihood assessment is focused on what has or hasn't happened over a 12 month period.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that no alterations were deemed necessary as the ConocoPhillips impact and risk methodology meets the requirements of the Environment Regulations and is consistent with relevant industry guidelines.	No change to EP content.	Nil
381	3480, 4527	ID524:Wilderness Society	22/09/2023 21:51	Claim	Relevant person requested confirmation that Conservation Advice was used to assess acceptability; disagreed with the process for comparing predicted impacts with acceptable levels, considered that assessments of acceptability in the draft EP did not consider feedback from relevant persons, and that any and all benefits that can be gained to protect coastal areas around a WHA should not be defined as negligible.	High	ConocoPhillips Australia provided information regarding: Conservation Advice's being included in impact and risk assessments; the impact assessment process which takes into consideration the condition of the existing environment; the intent of providing draft EP chapters to support consultation and generate feedback for consideration in the EP; and an overview of the impact assessment for the coastal section of the Tasmanian Wilderness World Heritage Area (TWWHA), with low thresholds represent sub-lethal concentrations of hydrocarbons and are not predicted to result in ecological effects.	No change to EP	Nil

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382	3480, 4527	ID524:Wilderness Society	22/09/2023 21:53	Claim	Relevant person expressed dissatisfaction with the lack of drill siting detailed provided in the EP.	High	"ConocoPhillips Australia reviewed impact Chapter 6.3 (Seabed Disturbance) and reiterated the importance of existing control measure CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values in the EP. Further, as the result of consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further benthic analysis onshore. This requirement will now be include this in the procurement process for the seabed survey and have been adopted in CM11: Procurement Vetting Process."	Reiteration of the importance of existing control measures CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values. During consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further analysis. The cost and effort to retain samples collected during the seabed survey, with storage and transport for onshore analysis, are considered to be reasonable and this requirement will include this in the procurement process for the seabed survey. Adopt CM11: Procurement Vetting Process (with onshore processing).	CM06: MODU Mooring Plan Development of a MODU mooring plan to ensure: •The mooring spread and anchor locations is appropriate for the environment •Adequate tensioning of mooring is applied and maintained •Anchors are located within the 2 km radius drilling areas (within the operational areas) •Seabed relief and sensitive seabed features are considered. Seabed surveys will be undertaken prior to finalising MODU position and location of mooring equipment, and prior to installing or removing the wellhead. These details will inform the well location and minimise impacts to the benthic environment and sensitive receptors at all locations. Section 572 of the OPGGS Act details the requirements for removal of property. Upon well abandonment, all subsea equipment shall be removed from sea floor, with wellheads cut below mudline and retrieved to surface. Retrieval of all mooring equipment from the sea floor within 3 months following the completion of the drilling campaign.
383	3480, 4527	ID524:Wilderness Society	22/09/2023 21:54	Claim	Relevant person provided feedback regarding inconsistency in Chapter 6.3 (Seabed Disturbance) as it is recognised that drilling may occur on less widespread rocky/coral areas (including potentially in the Zeehan MP), however impacts on these environments are treated similarly to those that may occur in more widespread benthic habitat.	High	ConocoPhillips Australia reviewed impact Chapter 6.3 (Seabed Disturbance) and reiterated the importance of existing control measure CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values in the EP.	Reiteration of the importance of existing control measures CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values.	"CM06: MODU Mooring Plan Development of a MODU mooring plan to ensure: •The mooring spread and anchor locations is appropriate for the environment •Adequate tensioning of mooring is applied and maintained •Anchors are located within the 2 km radius drilling areas (within the operational areas) •Seabed relief and sensitive seabed features are considered. Seabed surveys will be undertaken prior to finalising MODU position and location of mooring equipment, and prior to installing or removing the wellhead. These details will inform the well location and minimise impacts to the benthic environment and sensitive receptors at all locations. Section 572 of the OPGGS Act details the requirements for removal of property. Upon well abandonment, all subsea equipment shall be removed from sea floor, with wellheads cut below mudline and retrieved to surface. Retrieval of all mooring equipment from the sea floor within 3 months following the completion of the drilling campaign."

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384	3480, 4527	ID524:Wilderness Society	22/09/2023 21:55	Claim	Relevant person stated that there appears to be insufficient baseline data regarding Tasmanian benthic habitats which do not warrant the assessments made in the EP.	High	As the result of consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further benthic analysis onshore. This requirement will now be include this in the procurement process for the seabed survey and have been adopted in CM11: Procurement Vetting Process.	During consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further analysis. The cost and effort to retain samples collected during the seabed survey, with storage and transport for onshore analysis, are considered to be reasonable and this requirement will include this in the procurement process for the seabed survey. Adopt CM11: Procurement Vetting Process (with onshore processing)	Collect benthic samples during seabed surveys CM11: Procurement Vetting Process (with onshore processing)
385	3480, 4527	ID524:Wilderness Society	22/09/2023 21:56	Claim	Relevant person stated that benthic impacts, including on the Zeehan MP, are referred to as impacts that 'may' occur (i.e. risks), when in fact they should be measurable impacts that will occur.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. By using the broader operational areas ConocoPhillips Australia has taken a precautionary approach which ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to
386	3480, 4527	ID524:Wilderness Society	22/09/2023 21:57	Claim	Relevant person provided feedback regarding the potential for drilling to occur in Zeehan Marine Park and suggested that drilling locations should occur outside the marine park to reduce impacts, specifically cumulative impacts, to the parks integrity. Mitigation measures such as directional drilling were suggested.	High	ConocoPhillips Australia reviewed impact Chapter 6.3 (Seabed Disturbance) and reiterated the importance of existing control measure CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values in the EP.	Reiteration of the importance of existing control measures CM06: MODU Mooring Plan for the consideration of sensitive seabed features and conservation values.	CM06: MODU Mooring Plan

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387	3480, 4527	ID524:Wilderness Society	22/09/2023 21:59	Claim	Relevant person requested that ConocoPhillips Australia should reconsider the collection of baseline data control measure (currently rejected) as the monitoring of at least the first and second wells may present significant material information that may affect control measure benefits for later wells specifically as it is an area with an absence of baseline data. Relevant person provided feedback relating to this approach and believes that without this control measure there is an increased likelihood of risks occurring. Relevant person further requested that if baseline data is or is not obtained that said person is provided with these details.	High	As the result of consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further benthic analysis onshore. This requirement will now be include this in the procurement process for the seabed survey and have been adopted in CM11: Procurement Vetting Process.	During consultation ConocoPhillips Australia identified that benthic samples collected during seabed surveys could be retained for further analysis. The cost and effort to retain samples collected during the seabed survey, with storage and transport for onshore analysis, are considered to be reasonable and this requirement will include this in the procurement process for the seabed survey. Adopt CM11: Procurement Vetting Process (with onshore processing)	Collect benthic samples during seabed surveys CM11: Procurement Vetting Process (with onshore processing)
388	3480, 4527	ID524:Wilderness Society	22/09/2023 22:00	Claim	Relevant person suggested that Chapter 7.3 (Minor LOC) did not adequately assess the impacts of a minor LOC to the receiving environment. It was requested for additional scientific evidence to be incorporated.	High	ConocoPhillips Australia reviewed feedback provided by the relevant person and determined that the assessment in the Minor Loss of Containment Chapter (7.3) was adequate and supported by recent, relevant research. Therefore no alterations to the EP were deemed necessary.	Additional information provided in EP section 7.3.5.2 Conservation Values and Sensitivities.	Nil
389	3480, 4527	ID524:Wilderness Society	22/09/2023 22:01	Claim	Relevant person stated that ConocoPhillips Australia provided no material justification for why its proposed activities in Zeehan MP are not inconsistent with he SE MP management plan and considers drilling in the Zeehan MP is inconsistent with the management plan and represents an unacceptable impact.	High	ConocoPhillips Australia conducted a thorough review of controls measures relevant to the mitigation of risks associated with minor spills, specifically in the Zeehan Marine Park, to ensure that risks were adequately considered. It was determine that the assessment in the Minor Loss of Containment Chapter (7.3) was adequate and supported by recent, relevant research. Therefore no alterations to the EP were deemed necessary.	Existing proposed control measures were reviewed and confirmed as appropriate, including: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA accepted Oil Pollution Emergency Plan (OPEP)	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA accepted Oil Pollution Emergency Plan (OPEP)
390	3480, 4527	ID524:Wilderness Society	22/09/2023 22:03	Claim	Relevant person considers the introduction of a new minor oil spill risk within the Zeehan MP to be unacceptable and that serious control measures are necessary, such as no drilling within the AMP or including a reasonable buffer area. Further, relevant person stated the absence of drill locations makes it difficult to properly assess impacts across the entire potential impact area.	High	ConocoPhillips Australia conducted a review of controls measures relevant to the mitigation of risks associated with minor spills, specifically in the Zeehan Marine Park, to ensure that risks were adequately considered and updated the EP to ensure this was explicit where relevant. It was determine that the assessment in the Minor Loss of Containment Chapter (7.3) was adequate and supported by recent, relevant research. Previous advice had been provided on the conservative assessment process over the broader operational areas and updates to section 1.4 of the EP to provide clarity.	Existing proposed control measures were reviewed and confirmed as appropriate, including: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA accepted Oil Pollution Emergency Plan (OPEP)	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM12: General and Hazardous Chemical Management Procedures CM13: NOPSEMA accepted Oil Pollution Emergency Plan (OPEP)

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391	3480, 4527	ID524:Wilderness Society	22/09/2023 22:04	Claim	Relevant person considers activities outside of the petroleum activity be considered in the EP.	High	ConocoPhillips Australia reviewed and confirmed that appropriate control measures are in place within operational areas for petroleum activities, and provided information to relevant person on legislation relevant to other maritime activities.	We reviewed and confirmed that appropriate control measures are in place within operational areas for petroleum activities including: CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Whale Management Plan - Marine mammal observers: •A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. •In addition, facility crew who act as Officer of the Watch will receive training from the	CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Whale Management Plan - Marine mammal observers CM02: Vessel and MODU Operating Procedures and CM07: Light Management Plan. CM10: Well Testing Program - whereby flaring will be minimised and the initial flaring event at each well will commence on daylight.
392	4527, 3480	ID524:Wilderness Society	22/09/2023 22:05	Request	Relevant person requested that they are provided with data that has been used to determine presence of cetaceans within the EMBA, including interactions and/or shutdowns that occurred during its recent seismic blasting operation.	High	ConocoPhillips Australia provided information on the collection and use of data on cetacean presence in the operational areas since 2021; that data has been made available to government agencies and research organisations and has been used to inform the development of the Environment Plan, for example see section 4.6.9.2 of the draft Environment Plan.	Data on presence has been used to inform the development of the EP, for example see section 4.6.9.2 of the draft Environment Plan.	Information
393	3480, 4527	ID524:Wilderness Society	22/09/2023 22:06	Claim	Relevant person provided feedback regarding the potential underestimation of threatened and/or migratory cetaceans in the area where seismic activity was conducted by ConocoPhillips Australia. Relevant person requested that this data should be used to assess the potential impacts and risks of the proposed activity and inform control measures.	High	ConocoPhillips Australia provided information on the collection and use of data on cetacean presence in the operational areas since 2021; that data has been made available to government agencies and research organisations and has been used to inform the development of the Environment Plan, for example see section 7.4.5 of the Environment Plan.	ConocoPhillips Australia has collected data during marine mammal surveys since 2021 which was used to inform the assessment of likely species and abundance in the area - See section 7.4.5	Information

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395	3480, 4527	ID524:Wilderness Society	22/09/2023 22:08	Objection	"Relevant person disagreed with ConocoPhillips Australia's assessment that the South-East Commonwealth Marine Reserves Network Management Plan does not (currently) include vessel strike as a pressure on Zeehan Marine Park, and considered this represents a new threat."	High	ConocoPhillips Australia advised that petroleum exploration activities have been conducted in the South-east marine region since the 1960's, well before the 2013 publication of the current MP and that the Director of National Parks had been consulted as a relevant authority for the management of the Zeehan Marine Park.	Reviewed and confirmed appropriate control measures are in place within operational areas for petroleum activities including: CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Whale Management Plan - Marine mammal observers: •A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. •In addition, facility crew who act as Officer of the Watch will receive training from the MMO in whale observation and distance	Reviewed and confirmed appropriate control measures are in place within operational areas for petroleum activities including: CM01: Marine Assurance Process - The MODU and vessels will meet the navigation equipment, watchkeeping, radar and lighting requirements of the Navigation Act 2012 and associated Marine Orders, e.g. MO 30 - Prevention of Collisions. CM02 Vessel and MODU Operating Procedures: All vessels and aircraft will adhere to the distances and vessel management practices and reporting requirements of EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. CM08: Marine Mammal Adaptive Management Plan - Marine mammal observers: •A dedicated MMO with experience in whale observation, distance estimation and reporting, will undertake observations. •In addition, facility crew who act as Officer of the Watch will receive training from the
396	3480, 4527	ID524:Wilderness Society	22/09/2023 22:10	Objection	Relevant person stated that ConocoPhillips Australia did not provide sufficient data to dismiss vessel strike mitigation measures, particularly rejected control measure - activities only occur outside of environmentally sensitive periods. Relevant person suggested that a detailed assessment be made to determine whether the exclusion of specific biologically important time windows would reduce risks to key species. Relevant person stated that not being able to reduce the impact on all species is not a justification for the rejection of this control measure.		"ConocoPhillips Australia has reviewed feedback provided by relevant person and updated Section 6.6.7 in Chapter 6.6 (Non-Impulsive Noise) to provide clarity around the process followed to assess the variability of timing. Further, ConocoPhillips Australia made commitments to implement a Marine Mammal Adaptive Management Plan (whale management plan) that includes whale detection and management measures to minimise anthropogenic noise threats to whales. These measures effectively reduce the likelihood of vessel strike and have been referred to Table 7-8."	Updated section 6.6.7 of the draft EP to include: If an offshore project or activity creates noise above relevant published injury and/or behavioural disturbance impact criteria inside a Foraging Area, NOPSEMA advises that titleholders should firstly evaluate all feasible measures to avoid times of the year when blue whales are likely to be foraging. ConocoPhillips Australia has determined that the risk to all listed marine fauna cannot be avoided due to variability in timing of environmentally sensitive periods and unpredictable presence of some species, with blue whales typically present in foraging areas in higher numbers between November and May, and southern right whale typically present in Australian waters from early April to early November. Therefore, there is no period where avoidance of both species is possible. If it is not possible to avoid times sensitive times of year, there are requirements of the EPBC Act and the NOPSEMA EPBC Act-endorsed Program that constrain decision makers to 'not act inconsistently' with EPBC Act instruments, such as a recovery plan (e.g.	Additional information added to section 6.6.7 of the EP. Measures adopted for underwater sound also effectively reduce the likelihood of vessel strike and have been referred to Table 7-8.

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397	3480, 4527	ID524:Wilderness Society	22/09/2023 22:11	Objection	Relevant person provided feedback regarding the proposed mitigation measure relating to the reporting of vessel strikes to the NVSD.	High	ConocoPhillips Australia amended Table 7-8 in the Interactions with Marine Fauna Risk Assessment Chapter by removing the control measure and referring readers to Table 10-8 of the Implementation Strategy which defines reporting requirements for vessel strikes with cetaceans.	Table 7-8 was updated to remove the control measure and now refers to "Reporting requirements for vessel strikes with cetaceans are included in the Implementation Strategy (Table 10-8)."	Table 7-8 was updated to remove the control measure and now refers to "Reporting requirements for vessel strikes with cetaceans are included in the Implementation Strategy (Table 10-8)."
398	3480, 4527	ID524:Wilderness Society	22/09/2023 22:12	Request	Relevant person requested that all relevant persons are informed of reportable incidents and changes made to the EP, including any identification of new or altered impacts or risks associated with the proposal.	High	ConocoPhillips Australia will act in accordance with the requirements for ongoing consultation as detailed in Table 10.5 of the Implementation Strategy.	Ongoing consultation requirements are detailed in the Implementation Strategy - Table 10-5.	Ongoing consultation requirements are detailed in the Implementation Strategy - Table 10-5.
399	3480, 4527	ID524:Wilderness Society	22/09/2023 22:13	Claim	Relevant person provided feedback regarding a lack of connection between the EP and ConocoPhillips Australia's Biodiversity Policy.	High	The information in section 10.1.2.3 (Biodiversity Position) of the implementation strategy was updated to include information specific to the Otway Exploration Drilling Program.	We believe we continue to demonstrate strong alignment with our biodiversity position and have updated the information in section 10.1.2.3, to reflect this in response to this claim, where relevant to the Otway Exploration Drilling Program, as detailed below: •Applying a science-based approach and considering cumulative effects to develop leading best practices as described through-out the impact and risk assessment Environment Plan chapters and Cumulative Impact Assessment chapter. •Collecting data and information on local biodiversity through site assessments and baseline studies through the implementation of multi-year marine mammal survey program, the completion of studies on giant crabs and southern rock lobsters and by supporting citizen science and coastal southern right whale research programs. •Developing indicators and metrics to track biodiversity impacts and risk management performance through the development of control measures, environmental performance standards and measurement criteria.	The information in section 10.1.2.3 was updated to reflect the response to this claim, where relevant to the Otway Exploration Drilling Program, as detailed below: •Applying a science-based approach and considering cumulative effects to develop leading best practices as described through-out the impact and risk assessment Environment Plan chapters and Cumulative Impact Assessment chapter. •Collecting data and information on local biodiversity through site assessments and baseline studies through the implementation of multi-year marine mammal survey program, the completion of studies on giant crabs and southern rock lobsters and by supporting citizen science and coastal southern right whale research programs. •Developing indicators and metrics to track biodiversity impacts and risk management performance through the development of control measures, environmental performance standards and measurement criteria. •Applying technological innovation and practical, sustainable solutions for biodiversity conservation through, for
417	4600, 3893	ID578:AMOG Consulting	3/10/2023 16:47	Claim	Relevant person provided feedback that radial limits for underwater sound seem excessive and will cause unnecessary effort.	High	ConocoPhillips Australia provided information regarding the use of a validated model for the Otway region, and acknowledged that the modelling represented a precautionary approach to the assessment process.	No changes to EP.	Nil
418	4600, 3893	ID578:AMOG Consulting	3/10/2023 16:47	Other	Relevant person provided a reference to scientific literature and recommended ConocoPhillips Australia review the paper and include relevant information in the EP.	High	The paper was reviewed with ConocoPhillips Australia's acoustic consultant and referenced in relation to invertebrates in the EP.	Paper was reviewed with the acoustic consultant and referenced in relation to invertebrates is included in sections 6.6.3 and 6.7.2.1.	Paper was reviewed with the acoustic consultant and referenced in relation to invertebrates is included in sections 6.6.3 and 6.7.2.1.
419	4224, 1366	ID72:King Island Shire Council	18/05/2023 15:06	Request	Relevant person requested that Parks Tasmania is contacted to provide details for 'Jigs' to support ground truthing.	High	ConocoPhillips Australia undertook ground truthing of areas with public access and reviewed access to areas on private land as far a public access would allow from 12 to 15 July 2023.	ConocoPhillips undertook to complete ground truthing of areas with public access and reviewed access to areas on private land as far a public access would allow from 12 to 15 July 2023.	ConocoPhillips undertook ground truthing of areas with public access and reviewed access to areas on private land as far a public access will allow for the tactical response plans for King Island, Tasmania from 12 to 15 July 2023.

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
420	4224, 1366	ID72:King Island Shire Council	18/05/2023 15:08	Request	Relevant person requested that ConocoPhillips Australia identify potential resources and an adequate staging area for first strike response equipment on King Island, including assessing the feasibility of temporary accommodation.	High	ConocoPhillips Australia committed to having first strike spill response resources pre-emptively located on King Island in the event that drilling is scheduled to occur within the central zone of the T/49P Operational Area, adjacent to King Island. The OPEP (Table 6-1) has been updated to reflect this change.	ConocoPhillips Australia has committed to having first strike spill response resources pre-emptively located on King Island in the event that drilling is scheduled to occur within the central zone of the T/49P Operational Area, adjacent to King Island. Table 6-1: Environmental performance requirements and responsibilities for the OPEP (OPEP Rev00C page 73) has been updated to reflect this control measure. and measurement criteria have been established to demonstrate compliance including: - Agreements, contracts in place, and - Equipment in position prior to drilling in central zone of T/49P. The King Island Council Town Hall was identified as the most suitable location to establish a Forward Operating Base, with the following features: - Proximity to Currie port, airport and main N/S roadway for transportation of personnel and equipment, and accommodation - Adequate internal space to establish a command centre - Power	First strike response equipment will be pre-positioned on King Island to support rapid response, in the event that drilling is scheduled to occur within the central zone of the T/49P Operational Area, adjacent to King Island.
434	4221, 3469	ID569:Tasmanian Climate Collective	20/09/2023 12:30	Objection	Relevant person considered no impacts are acceptable to the Zeehan Marine Park and emphasized the importance of marine parks for the conservation of biodiversity and for a baseline for environmental studies.	High	ConocoPhillips Australia provided information on the multiple use zone and requirements for consultation with the relevant authority, and an overview of the assessments relevant to the marine park which demonstrated impacts to the Zeehan Marine Park from short term seabed survey and exploration drilling activities are acceptable and, through the adoption of control measures as described in the draft EP, as low as reasonably practicable for the proposed Otway Exploration Drilling Program.	Review and confirm control measures relevant to the mitigation of impacts to the Zeehan Multiple Use zone are in place, including: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM05: Cultural Heritage Protection Program CM06: MODU Mooring Plan CM07: Light Management Plan CM08: Marine Mammal Adaptive Management Plan CM09: Drilling Program CM10: Well Testing Program CM11: Procurement Vetting Process CM12: General and Hazardous Chemical Management Procedures	Control measures relevant to the mitigation of impacts to the Zeehan Multiple Use zone include: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM05: Cultural Heritage Protection Program CM06: MODU Mooring Plan CM07: Light Management Plan CM08: Marine Mammal Adaptive Management Plan CM09: Drilling Program CM10: Well Testing Program CM11: Procurement Vetting Process CM12: General and Hazardous Chemical Management Procedures
435	3469, 4221	ID569:Tasmanian Climate Collective	20/09/2023 13:08	Claim	Relevant person provided feedback regarding potential light impacts to critically endangered migratory species which utilise the project area such as the orange bellied-parrot and bogong moth.	High	ConocoPhillips Australia included information on the bogong moth in the EP and reviewed existing control measures CM01: Marine Assurance Process, CM02: Vessel and MODU Operating Procedures, CM07: Light Management Plan and CM10: Well Testing Program to ensure impacts to light sensitive species are ALARP and of acceptable levels.	"Reviewed and confirmed control measure adopted in the EP will mitigate impacts associated with light emissions including: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM07: Light Management Plan CM10: Well Testing Program"	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM07: Light Management Plan CM10: Well Testing Program

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436	3469, 4221	ID569:Tasmanian Climate Collective	20/09/2023 13:32	Statement	Relevant person advised that the EPBC listing status of the Shy Albatross has been updated to endangered and highlighted the importance of the breeding islands offshore Tasmania.	High	ConocoPhillips Australia updated the listing status of the Shy Albatross to endangered within the EP, specifically in Section 4.6.7.1, Table 4-9 and Section 6.4.5.1.	The editorial error in section 4.6.7.1 was corrected to reflect the listing of 'endangered' as presented elsewhere in the Environment Plan, e.g. Table 4-9 and section 6.4.5.1.	The editorial error in section 4.6.7.1 was corrected to reflect the listing of 'endangered' for the shy albatross, as presented elsewhere in the Environment Plan e.g. Table 4-9 and section 6.4.5.1.
437	3469, 4221	ID569:Tasmanian Climate Collective	20/09/2023 13:46	Objection	Relevant person provided feedback regarding the uncertainty of impacts on an understudied area already under extreme stress from climate change.	High	ConocoPhillips Australia reviewed the feedback provided and considers that the items raised are sufficiently addressed by the impact and risk assessment process described in section 5.6.2.2 Uncertainty of Impacts and Risks of the EP, which includes consideration of uncertainty and the application of the precautionary principle.	Referenced in Section 5.6.2.2 Uncertainty of Impacts and Risks	Information
438	4014, 4217	ID72:King Island Shire Council	29/08/2023 16:51	Request	Relevant person requested for the word 'discernible' to be replaced by 'detectable' when referring to the impact of emissions on King Island.	High	ConocoPhillips Australia updated wording to reflect the feedback provided. EPO8 now states; No detectable change to the air quality of coastal communities.	Updates made to EPO8: No detectable change to the air quality of coastal communities through-out Environment Plan.	Change wording in relation to air emissions Environment Performance Outcome: EPO8: No detectable change to the air quality of coastal communities.
439	4014, 4217	ID72:King Island Shire Council	29/09/2023 17:08	Request	Relevant person requested for impacts to the 'King Island brand' to be assessed in the EP.	High	ConocoPhillips Australia conducted a review of Section 4.7.1 (Coastal Settlements) to ensure the King Island Brand was adequately represented. Further, a thorough review of controls measures was conducted to ensure impacts to King Island were adequately considered.	Review and updated of existing information on section 4.7.1 and review of impact and risk assessments and existing control/s to confirm adequacy: CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM03: Marine and Coastal Users Consultation and Communication Plan CM07: Light Management Plan CM10: Well Testing Program CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP) CM14: Operational and Scientific Monitoring Plan (OSMP) CM15: Well Design and Delivery Process (WDDP) CM16: Source Control Emergency Response Plan (SCREP), inclusive of Relief Well Plan CM17: NOPSEMA Accepted Well Operations Management Plan	CM01: Marine Assurance Process CM02: Vessel and MODU Operating Procedures CM03: Marine and Coastal Users Consultation and Communication Plan CM07: Light Management Plan CM10: Well Testing Program CM13: NOPSEMA Accepted Oil Pollution Emergency Plan (OPEP) CM14: Operational and Scientific Monitoring Plan (OSMP) CM15: Well Design and Delivery Process (WDDP) CM16: Source Control Emergency Response Plan (SCREP), inclusive of Relief Well Plan CM17: NOPSEMA Accepted Well Operations Management Plan
444	4269, 4131	ID588:Western Abalone Divers Association, ID580:Abalone Council Victoria	6/10/2023 12:47	Claim	Relevant person advised that Greenlip is a smaller, independent fishery with its own TACCs set.	High	EP Table 4-31 Victorian Abalone Fishery, Target species was updated to reflect that greenlip abalone represents a separate stock with its own TACC, and is not just bycatch associated with the blacklip abalone fishery.	Table 4-31 Victorian Abalone Fishery, Target species updated to reflect that greenlip abalone represents a separate stock with its own TACC, and is not just bycatch associated with the blacklip abalone fishery.	Table 4-31 Victorian Abalone Fishery, Target species updated to reflect that greenlip abalone represents a separate stock with its own TACC, and is not just bycatch associated with the blacklip abalone fishery.

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445	4269, 4131	ID588:Western Abalone Divers Association, ID580:Abalone Council Victoria	6/10/2023 12:54	Claim	Relevant person advised that a map of the Victorian abalone fisheries should be available online for inclusion in the EP.	High	A map showing the Victorian fishery was included in Environment Plan - section 4.7.7.3.	Map showing Victorian fishery included in Environment Plan - section 4.7.7.3.	Map showing Victorian fishery included in Environment Plan - section 4.7.7.3.
446	4269, 4131	ID588:Western Abalone Divers Association, ID580:Abalone Council Victoria	6/10/2023 13:13	Claim	Relevant person advised that there had been historical outbreaks of an abalone virus and provided feedback that outbreaks are related to stress, with impacts to inshore areas of particular concern.	High	ConocoPhillips Australia identified research supporting the link between virus outbreaks and stress and updated Environment Plan sections 4.6.4.4 and 4.7.7.3 (Table 4-31) to reflect the existing condition and pressures on abalone stocks in Victoria.	Research supporting link between virus outbreaks and stress identified: https://www.frdc.com.au/fish-vol-30-2/arming-abalone-against-disease and Environment Plan sections 4.6.4.4 and 4.7.7.3 (Table 4-31) updated to reflect the existing condition and pressures on abalone stocks in Victoria.	Environment Plan sections 4.6.4.4 and 4.7.7.3 (Table 4-31) updated to reflect the existing condition and pressures on abalone stocks in Victoria.
448	4658, 4153	ID111:Australian Marine Conservation Society	26/10/2023 14:08	Objection;Claim	Relevant person provided feedback regarding the ability to assess and understand the impacts of the proposed project when there are no projected drill locations and requested information on how drill site locations are selected.	High	ConocoPhillips Australia incorporated clarification regarding the reasoning and process behind selecting final survey and drilling locations in Section 1.4, and considers that it is essential data is analysed efficiently to confirm resources with the least amount of wells, therefore minimising potential impacts and risks associated with each. ConocoPhillips Australia advised that it is not a requirement to have confirmed drilling locations prior to EP acceptance, and provided additional information and updated section 1.4 of the EP to provide clarification on the process for selection of drilling locations and the assessment of impacts and risks across the full range of potential locations.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to
449	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:08	Other	Relevant person requested details on the drilling rig being sourced.	High	ConocoPhillips Australia provided information from the August 2023 project update that confirmed the type of rig.	No change to EP content	Nil
450	4658, 4153	ID111:Australian Marine Conservation Society	26/10/2023 14:10	Other	Relevant person requested information regarding the capping of a well.	High	ConocoPhillips Australia provided an overview of the capping stack feasibility assessment and advised, as stated in the draft EP made available in August 2023, as advised in the August 2023 project update, that a relief well has been determined to be the primary means of source control.	No change to EP content	Nil

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451	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:11	Other	Relevant person requested details on sourcing arrangements for vessels.	High	ConocoPhillips Australia advised it would go out to the market to source suitable vessels.	Reviewed and confirmed control measures for vessel are consistent for vessels sourced within Australia and from international waters.	Nil
452	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:12	Objection;Request	Relevant person provided feedback that they could not assess ALARP without defined drill sites.	High	ConocoPhillips Australia advised that it is not a requirement to have confirmed drilling locations prior to EP acceptance, and provided additional information and updated section 1.4 of the EP to provide clarification on the process for selection of drilling locations and the assessment of impacts and risks across the full range of potential locations.	no change to EP content	Nil
453	4658, 4153	ID111:Australian Marine Conservation Society	26/10/2023 14:13	Other	Relevant person queried at what point of the consultation process does ConocoPhillips Australia expect to provide drill site locations to relevant persons.	High	ConocoPhillips Australia advised that it is not a requirement to have confirmed drilling locations prior to EP acceptance, and provided additional information and updated section 1.4 of the EP to provide clarification on the process for selection of drilling locations and the assessment of impacts and risks across the full range of potential locations.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to
454	4153, 4658	ID111:Australian Marine Conservation Society	19/10/2023 14:15	Claim	Relevant person queried what mitigation measures were in place to ensure the Tasmanian Wilderness World Heritage Area is not impacted by a spill.	High	ConocoPhillips Australia provided clarification on the EMBA, showing the full range of possible consequences that may occur in an extremely unlikely event, using highly conservative modelling, without mitigations, representing the outer extent of areas that could be affected by low thresholds of hydrocarbons which are below the levels that cause ecological effects; and that mitigation measures and the Oil Pollution Emergency Plan had been made available for consultation since August 2023, as advised in the August 2023 Project update.	We have published out mitigation measures and Oil Pollution Emergency Plan as part of the provision of sufficient information to relevant persons.	Oil Pollution Emergency Plan
455	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:16	Claim	Relevant person queried if there would be a detailed spill response in the EP.	High	Relevant person was advised that ConocoPhillips Australia spill response plans have been available for consultation since 31 August via the consultation hub, as advised in the August 2023 project update.	ConocoPhillips Australia spill response plans have been available for consultation since 31 August, as advised in our August project update. The primary spill response plan is available via our consultation hub.	Nil

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456	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:17	Claim	Relevant person provided feedback that the impact assessment did not address cumulative impacts across the breadth of the project.	High	Relevant person was advised that Cumulative impacts were assessed in draft EP chapter 8 made available in August 2023, as advised in the August 2023 project update.	Cumulative impacts have been assessed in draft EP chapter 8 made available in August 2023, as advised in our project update in August.	Cumulative impact assessment
457	4658, 4153	ID111:Australian Marine Conservation Society	26/10/2023 14:19	Claim	Relevant person queried a statement made by a consultant during a community information sessions regarding scientific or cultural reasons halting the project.	High	ConocoPhillips Australia believes that the activity can always be adapted and/or modified to respect the scientific, cultural, social, and economic values and sensitivities in order to meet the requirements of the Regulations. We have considered all feedback received through the consultation process to inform the development of the EP.	No change to EP content	Nil
458	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:24	Claim	Relevant person queried a statement made in regards to no drilling adjacent to King Island.	High	ConocoPhillips Australia provided confirmation that specific locations have yet to be confirmed and updated section 1.4 of the EP to provide clarification on the process for selection of drilling locations and the assessment of impacts and risks across the full range of potential locations.	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to	Review and update of information in EP section 1.4: Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each. Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles VIC/P79 and T/49P. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to
459	4658, 4153	ID111:Australian Marine Conservation Society	26/10/2023 14:26	Claim	Relevant person queried if ConocoPhillips Australia is at risk of breaching any lease title requirements that are time constrained.	High	ConocoPhillips Australia provided general information on time constraints associated with title instruments and extensions.	No change to EP content.	Nil
460	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:27	Other	Relevant person requested the recording and minutes from their meeting to ensure it was accurately recorded.	High	ConocoPhillips Australia provided the recording of the meeting held on 18/10/2023 and received confirmation of download on 21/10/2023.	The recording for the meeting held on 18/10/23 was provided to you and we received confirmation of your download on 21/10/23.	Nil
461	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:28	Request	Relevant person requested that all relevant persons are advised of reportable incidents, changes made to the EP (either before or after approval) and the identification of any new or changed impacts or risks.	High	ConocoPhillips Australia has committed to the provision of updates on activity progress, including reportable incidents, etc in Table 10-5 of the Implementation Strategy.	Ongoing consultation requirements are detailed in the Implementation Strategy - Table 10-5.	Ongoing consultation requirements are detailed in the Implementation Strategy - Table 10-5.

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462	4658, 4153	ID111:Australian Marine Conservation Society	19/10/2023 14:30	Claim	Relevant person claimed they had not seen significant evidence of mitigation measures to align with the company's Biodiversity Policy.	High	The information in section 10.1.2.3 (Biodiversity Position) of the implementation strategy was updated to include information specific to the Otway Exploration Drilling Program.	The information in section 10.1.2.3 (Biodiversity Position) of the implementation strategy was updated to include information specific to the Otway Exploration Drilling Program.	The information in section 10.1.2.3 was updated to reflect the response to this claim, where relevant to the Otway Exploration Drilling Program, as detailed below: •Applying a science-based approach and considering cumulative effects to develop leading best practices as described through-out the impact and risk assessment Environment Plan chapters and Cumulative Impact Assessment chapter. •Collecting data and information on local biodiversity through site assessments and baseline studies through the implementation of multi-year marine mammal survey program, the completion of studies on giant crabs and southern rock lobsters and by supporting citizen science and coastal southern right whale research programs. •Developing indicators and metrics to track biodiversity impacts and risk management performance through the development of control measures, environmental performance standards and measurement criteria. •Applying technological innovation and practical, sustainable solutions for biodiversity conservation through, for
463	4636, 4174	ID6:Tuna Australia	4/10/2023 16:31	Request	Relevant person requested information on historical observations of tuna.	High	ConocoPhillips Australia reviewed historical records and did not locate any recorded observations of Tuna for the period August 2022 to June 2023.	ConocoPhillips Australia reviewed the aerial survey data and did not locate any recorded observations of Tuna for the period August 2022 to June 2023. Anecdotal information obtained from the aerial survey contractor indicates some observations were made but not recorded as they did not represent target species. ConocoPhillips Australia spoke to the aerial survey contractor and requested that observations of tuna species be recorded during future surveys, should they occur, where time permits on survey. Noting that no aerial survey programs are currently scheduled.	Nil
464	4174, 4636	ID6:Tuna Australia	4/10/2023 16:46	Request	Relevant person requested 48-hour look ahead be considered for the activity.	High	ConocoPhillips Australia reviewed existing notification requirements and added the requirement to provide a 48-hour look-ahead every 24-hours, prior to and during key periods of activity (i.e. transit of rig) to Table 10-6 of the implementation strategy and as an environmental performance standard for CM03: Marine and Coastal Users Consultation and Communication Plan, in response to this request.	ConocoPhillips Australia undertook to review existing notification requirements for key fishing representative bodies and added the requirement to provide a 48-hour look-ahead every 24-hours, prior to and during key periods of activity (i.e. transit of rig) to Table 10-6 of the implementation strategy and as an environmental performance standard for CM03: Marine and Coastal Users Consultation and Communication Plan, in response to this request.	Provide a 48-hour look-ahead every 24-hours, prior to and during key periods of activity (i.e. transit of rig), included to Table 10-6 of the implementation strategy and as an environmental performance standard for CM03: Marine and Coastal Users Consultation and Communication Plan, in response to this request.

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Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
465	4658, 4358	ID111:Australian Marine Conservation Society	26/10/2023 17:47	Request	Relevant person suggested it would be appropriate to extend consultation on the basis that a consultant supporting the process had delayed the consultation period for another project they are working on.	Low	ConocoPhillips Australia provided clarification that it has been undertaking its own consultation process and is occasionally supported in this effort by a number of consultants. No change to EP content or consultation process was made as this relevant person has requested extensions of time previously and these have been granted.	No change to EP content or consultation process. Relevant person has requested extensions of time previously and these have been granted.	Nil
466	4358, 4658	ID111:Australian Marine Conservation Society	26/10/2023 17:53	Claim	Relevant person requested ConocoPhillips Australia restart the relevant persons consultation process.	Low	No change to EP content or consultation process was made as a result of this request. ConocoPhillips Australia considered the request to restart consultation represented an unacceptable impact to relevant persons who have been provided sufficient information and a reasonable period to support the assessment of potential impacts arising the proposed activity on their functions, interests or activities.	ConocoPhillips Australia's view is that consultation in preparation of the EP is complete.	Nil
467	4876, 4184, 4654	ID20:Department of Climate Change Energy the Environment and Water (DCCEEW)	16/10/2023 18:18	Other	Relevant person provided clarification on the application of the southern right whale Biologically Important Area (BIA) geospatial data released in September 2023.	High	ConocoPhillips Australia reviewed and amended all references to southern right whale BIAs through-out the Environment Plan and revised the impact assessments to reflect the latest information available regarding the migration and reproductive BIAs for this species, as advised.	ConocoPhillips Australia has undertaken to review and amend all references to southern right whale BIAs through-out the Otway Exploration Drilling Program Environment Plan and have revised the impact assessments to reflect the latest information available regarding the migration and reproductive BIAs for this species, as advised.	ConocoPhillips Australia has undertaken to review and amend all references to southern right whale BIAs through-out the Otway Exploration Drilling Program Environment Plan and have revised the impact assessments to reflect the latest information available regarding the migration and reproductive BIAs for this species, as advised.
468	4637, 4359	ID524:Wilderness Society	3/10/2023 20:30	Claim	Relevant person claimed NOPSEMAs assessment process is inconsistent with EBPC Act.	High	ConocoPhillips Australia reviewed feedback provided by relevant person and determined that no alterations to the EP were deemed necessary as the definition of a petroleum activity in the Environment Regulations is directly related to a title granted under the OPGGS Act and applies to petroleum activities that will be conducted within the boundary of the petroleum title.	No change to EP content as the definition of a petroleum activity in the Environment Regulations is directly related to a title granted under the OPGGS Act and applies to those petroleum activities that will be conducted within the boundary of a petroleum title. Activities occurring outside the operational areas are governed under the Navigation Act 2012 and other relevant legislative requirements.	Nil
470	4359, 4637	ID524:Wilderness Society	3/10/2023 20:38	Claim	Relevant person provided feedback regarding cumulative impacts on the orange-bellied parrot affecting World Heritage values, and the assessment process considering excluding areas/ times.	High	ConocoPhillips Australia provided an overview of the impact assessment for light emissions and the control measures adopted in the EP to reduce impacts to ALARP and acceptable levels, including: CM07: Light Management Plan, CM01: Marine Assurance Process, CM02: Vessel and MODU Operating Procedures, CM10: Well Testing Program	The EP has adopted a number of control measures, including CM07: Light Management Plan, CM01: Marine Assurance Process, CM02: Vessel and MODU Operating Procedures and CM10: Well Testing Program; and has considered a range of additional measures to mitigate impacts associated with light emissions to ALARP and acceptable levels.	CM07: Light Management Plan, CM01: Marine Assurance Process, CM02: Vessel and MODU Operating Procedures, CM10: Well Testing Program
471	4526, 4636	ID6:Tuna Australia	31/10/2023 10:39	Statement	Relevant person provided additional resolution of detail on the Eastern Tuna and Billfish Fishery (ETBF) and Southern Bluefin Tuna Fishery (SBTF), including information on recent catch data, emerging trends and future directions.	High	Information in Table 4 21: Eastern Tuna and Billfish Fishery (ETBF) and Table 4 26: Southern Bluefin Tuna Fishery (SBTF) has been updated to reflect finer resolution of data provided.	Information in Table 4 21: Eastern Tuna and Billfish Fishery (ETBF) and Table 4 26: Southern Bluefin Tuna Fishery (SBTF) has been updated to reflect finer resolution of data provided.	Information in Table 4 21: Eastern Tuna and Billfish Fishery (ETBF) updated to reflect finer resolution of data provided.

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Appendix C2 - Objections and Claims

Id	Related Events	Organisation	Date Raised	Feedback type	Summary of each response made by a relevant person	Assessment of Merit	Summary of the titleholders response, if any, to feedback, objection or claim.	Outcome of Assessment	Measure(s) adopted
472	4526, 4636	ID6:Tuna Australia	31/10/2023 11:10	Objection	Relevant person advised that although the Australian Skipjack Fishery (ESKJ) is not currently active, there is significant potential in the Eastern sector and this fishery should be included for the purposes of assessing Conoco Phillip's activity impacts.	High	This information was added as a footnote to Table 6 2: Presence of commercial fisheries and fishing activity within the operational areas and, as part of CM03: Adjustment Protocol, Tuna Australia and its members, including those from the Eastern sector, will be invited to participate in the development of the adjustment protocol for this activity.	This information has been added as a footnote to Table 6 2: Presence of commercial fisheries and fishing activity within the operational areas and, as part of CM03: Adjustment Protocol, Tuna Australia and its members, including those from the Eastern sector, will be invited to participate in the development of the adjustment protocol for this activity.	CM04: Commerical Marine Users Adjustment Protocol
473	4526, 4636	ID6:Tuna Australia	31/10/2023 11:19	Request	Relevant person requested provision of 48-hour lookaheads during active periods.	High	Requirements for a 48-hour lookahead have been added to Table 10 6: Ongoing consultation objectives and CM03: Marine and Coastal Users Consultation and Communication Plan.	Requirements for a 48-hour lookahead have been added to Table 10 6: Ongoing consultation objectives and CM03: Marine and Coastal Users Consultation and Communication Plan.	Requirements for a 48-hour lookahead have been added to Table 10 6: Ongoing consultation objectives and CM03: Marine and Coastal Users Consultation and Communication Plan.
474	4526, 4636	ID6:Tuna Australia	31/10/2023 11:21	Request	Relevant person requested information on how to access the Commercial Marine Operators Adjustment Protocol.	High	Tuna Australia and its members, including those from the Eastern sector, will be invited to participate in the development of CM04: Commercial Marine Operators Adjustment Protocol.	Tuna Australia and its members, including those from the Eastern sector, will be invited to participate in the development of CM04: Commercial Marine Operators Adjustment Protocol.	Tuna Australia and its members, including those from the Eastern sector, will be invited to participate in the development of CM04: Commercial Marine Operators Adjustment Protocol.

Please note, this does not include objections and claims raised by relevant persons who opted to keep their information confidential.

ConocoPhillips

C3: Supplementary Evidence

Otway Exploration Drilling Program

ConocoPhillips Australia

Consultation

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters.

The proposed exploration program will consist of seabed surveys and the drilling of up to six exploration wells.

This is a continuation of our exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek acceptance from the regulator for this exploration program. As part of EP development we will undertake consultation in line with a prescribed regulatory process.

This information sheet outlines a consultation process we are proposing to undertake and we are inviting feedback on this process.

KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the offshore Otway Basin, off the coast of Victoria and King Island, Tasmania subject to EP acceptance and rig availability. Any decision to proceed to development will be dependent on a conducive investment environment.
- Consultation will inform the identification, assessment and management of environmental impacts and risks during the development of the EP.
- ConocoPhillips Australia is seeking to identify authorities, individuals and organisations. who may have functions, interests or activities that may be affected by the proposed Otway Exploration Drilling Program that would like to be consulted as part of this process.

Have we missed anyone?

If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

E: otway@conocophillips.com

T: 07 3182 7122

PO BOX 1243, MILTON, QLD, 4064

conocophillips.com.au

Our Approach

The purpose of consultation is to ensure authorities, individuals and organisations that are potentially affected by the proposed Otway Exploration Drilling Program are consulted and that their input is considered in both the development of the consultation processes and in the EP for this activity.

Consultation provides an avenue to receive information, ask questions, provide feedback, identify additional environmental values and sensitivities, and raise issues and concerns about the activity and its environmental impacts and risks.

Consultation informs our understanding of the environment in which our activity will take place. We are particularly interested to hear from individuals and organisations who may be affected by the proposed activity in areas including: people and communities, heritage values, and ecological, social and cultural features. This information provides valuable insight and local context that supports us identifying, assessing and effectively managing environmental impacts and risks.

ConocoPhillips Australia is proposing to use various consultation methods and communication tools to identify and provide sufficient information for relevant persons to make an informed assessment of the possible consequences of the activity on them.



Our Approach *continued*

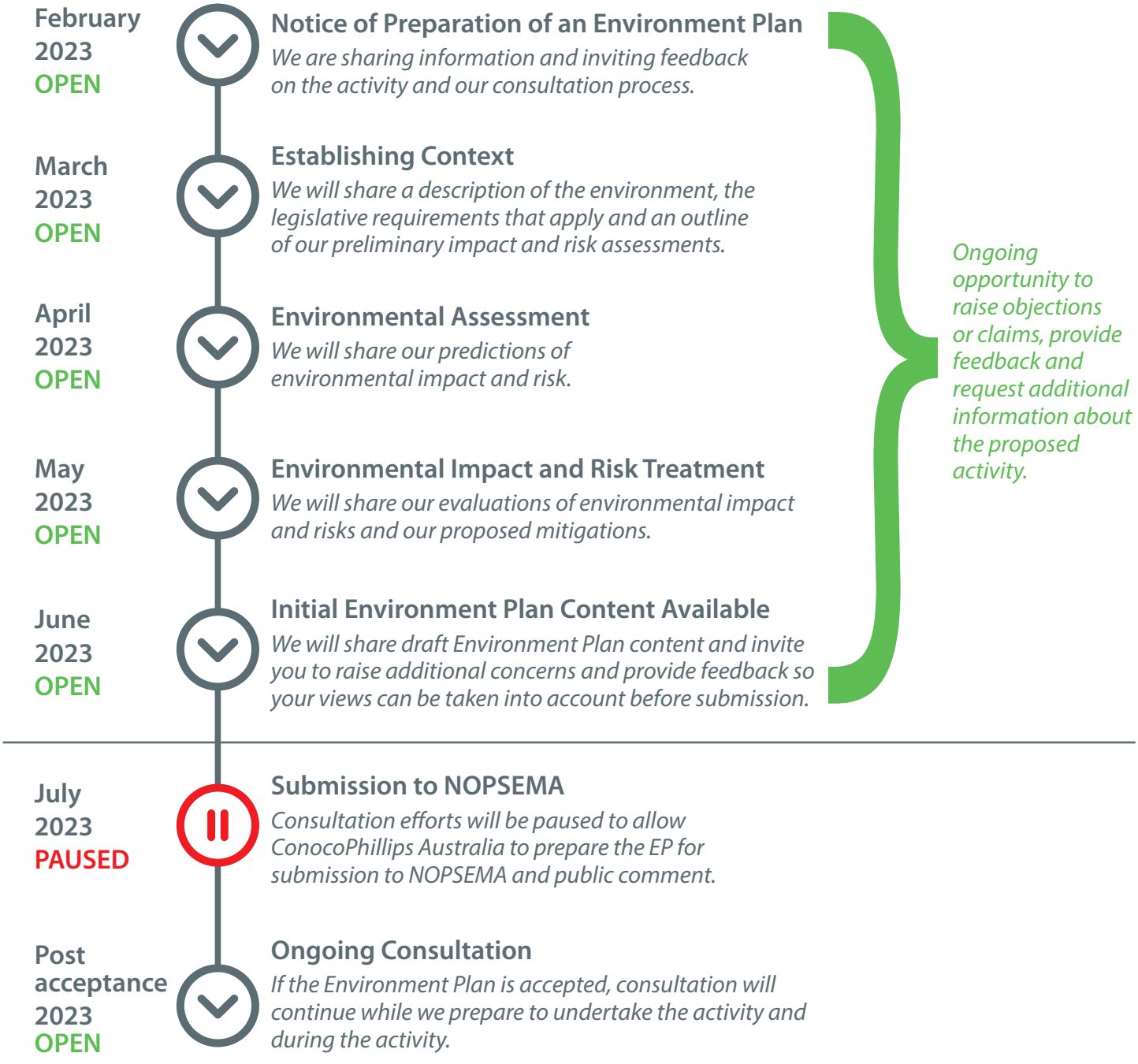
These consultation methods may include:

- Community pop-ups and drop in sessions
- Workshops
- Technical committees/ groups
- Meetings and briefings (in person and/or online)
- Interactive forums
- Information sheets
- Telephone conversations
- Email and letters
- Website content
- Advertising

The way we plan to consult is outlined below. We welcome and invite feedback on the proposed approach.

Throughout EP development and consultation ConocoPhillips Australia will continue to identify and consult potentially affected authorities, individuals and organisations.

Environment Plan Preparation and Consultation Timeline



Understanding the environment

During the development of the EP for the Otway Exploration Drilling Program, we will undertake to identify environmental values and sensitivities and how these may be affected by the proposed activity.

We will be seeking input through the consultation process to validate and better understand the environment we are proposing to work in. This will improve our predictions of impacts and risks and help to identify any additional measures that could be considered for adoption to manage environmental impacts and risks more effectively.

Environmental values and sensitivities typically include rare, important and/or sensitive physical, biological, ecological, social, economic and/or cultural features of the environment.

Examples that are often referred to in EPs for offshore activities include:

- Benthic (sea floor) communities and habitats, marine fauna and the quality of the water, sediment and biota (animal and plant life of a region or habitat)
- World Heritage Values, National Heritage Values, the ecological character of declared RAMSAR wetlands, listed threatened species and ecological communities, listed migratory species and Marine Parks, and
- Social and economic features of the environment including the rights of other users.

Other examples may include biologically important areas, habitats critical to the survival of listed species, key ecological features, marine and coastal industries, marine tourism and recreation, Commonwealth and State managed commercial fisheries, and cultural heritage features and values.

Understanding your functions, interests and activities

ConocoPhillips Australia is seeking to understand functions, interests or activities that may be affected by the proposed Otway Exploration Drilling Program. This information, along with the assessment of impacts and risks, determines if an individual or organisation is a 'relevant person'. A relevant person is a mandatory consultee under the Regulations and this information guides:

a) the degree to which a relevant person may be affected.

b) the type and form of information that should be provided to a relevant person to support their assessment of the possible consequences of the activity on them.

c) an assessment of the level of participation in the consultation process required.

To assist you determining if you are a relevant person, we have adopted the following definitions of functions, interests, and activities:

- A function refers to a power or duty to do something.
- Interests are any interest possessed above that of the general public.
- Activities are things a person or group already does.

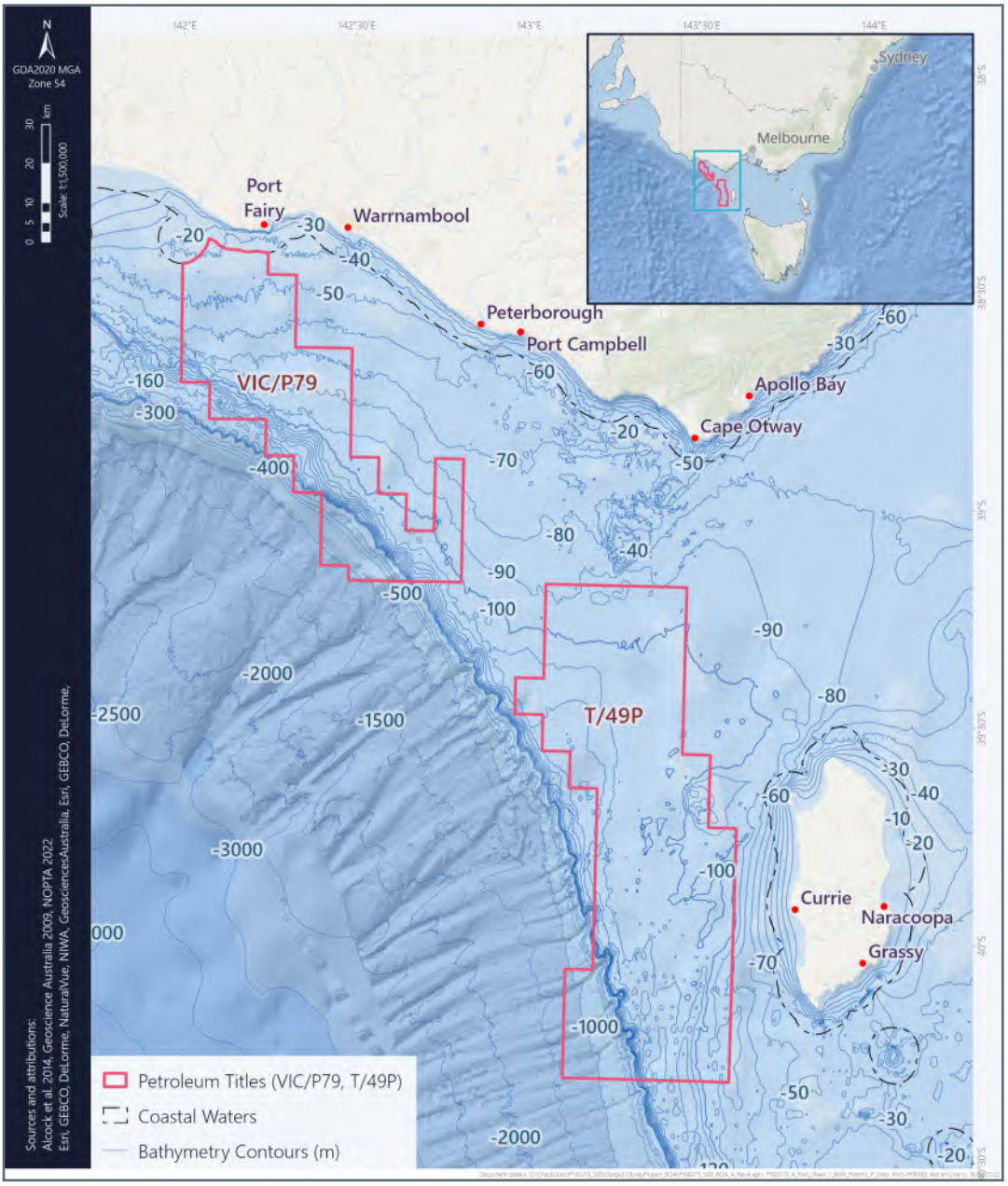
The level of participation required in the consultation process will vary (depending on, for example, the extent of the affect) and will be appropriate for the relevant person and the type of function, activity or interest.

Are you a relevant person?

Take our consultation survey to determine if you may be a relevant person.

You can also use the QR code to provide instant feedback

Map of Permit Areas



Preparation of the EP

ConocoPhillips Australia has a regulatory requirement to consult potentially affected authorities, individuals and organisations as part of the development of an EP.

In preparing the EP, ConocoPhillips Australia is required to keep all records of all interactions and correspondence which includes but is not limited to letters, emails, phone calls and records of meetings. This is submitted to NOPSEMA with the EP for assessment but is not available for public review as part of public comment.

Within the EP ConocoPhillips Australia may choose to include a log of all interactions to demonstrate the extent of consultation undertaken in preparation of the EP. In this instance, key identifying information of individuals participating in consultation is removed and only a summary of the interaction is provided.

In addition, a relevant person may request that information they provide throughout consultation not be published in the EP and ConocoPhillips Australia must comply with this request.

Questions

and Answers

Why have I been sent this information sheet?

You are receiving this information sheet because ConocoPhillips Australia identified you or your organisation as potentially having a function, interest or activity that may be affected by our proposed Otway Exploration Drilling Program. We have a regulatory requirement to consult relevant persons as part of the development of an EP.

How did ConocoPhillips Australia identify me?

ConocoPhillips Australia undertook a global search for relevant persons to find authorities, organisations, or persons that may have functions, interests and activities potentially affected by the proposed activity. Increased efforts have been made closer to the activity location where the largest possible geographical area exposed to risks from the activity was searched through desktop investigation, database queries, online research, and other targeted search methods.

We will also place paid advertisements throughout the development of the EP across a range of media platforms to encourage potentially affected authorities, individuals and organisations to self-identify.

What should I do if I want to be included in consultation?

If you want to be consulted, you will need to provide us with contact details and an indication of your functions, interests or activities that may be affected by the proposed Otway Exploration Drilling Program. Through the course of EP development, we will work with you to ensure the provision of sufficient information so you can make an informed assessment of the potential consequences of the activity to you. You will then need to provide ConocoPhillips Australia with feedback on the information provided.

What happens if I don't respond to the information provided to me throughout the consultation process?

ConocoPhillips Australia will attempt to contact you multiple times using multiple methods to gather your feedback. Your feedback is important to us, this is why we ask you to provide a number of contact methods.

I think someone I know should be a relevant person, what should I do?

Please share this information sheet with them and encourage them to contact us.

What should I do if I don't want to be consulted?

If you don't want to be consulted as part of EP development, please contact us. It's important to note that you can opt out of consultation by telling us that you no longer wish to be consulted for the EP. This decision can be reversed at any time by opting back into the consultation process by advising us.

How do I arrange a meeting with ConocoPhillips Australia?

Contact us using any of the contact points listed below.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

ConocoPhillips Australia

ConocoPhillips Australia

Proposed Exploration Activity Overview

2024 - 2028

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters.

The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be seabed assessments which will commence no earlier than January 2024.

KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the offshore Otway Basin, off the coast of Victoria and King Island, Tasmania subject to EP acceptance and rig availability. Any decision to proceed to development will be dependent on a conducive investment environment.
- The proposed exploration program will involve seabed surveys and drilling up to a maximum of six exploration wells.
- The exploration program will commence no earlier than January 2024, subject to an accepted EP being in place.
- ConocoPhillips Australia is currently preparing an EP for these activities and will undertake consultation prior to submitting the EP to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment.

Have we missed anyone?

If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

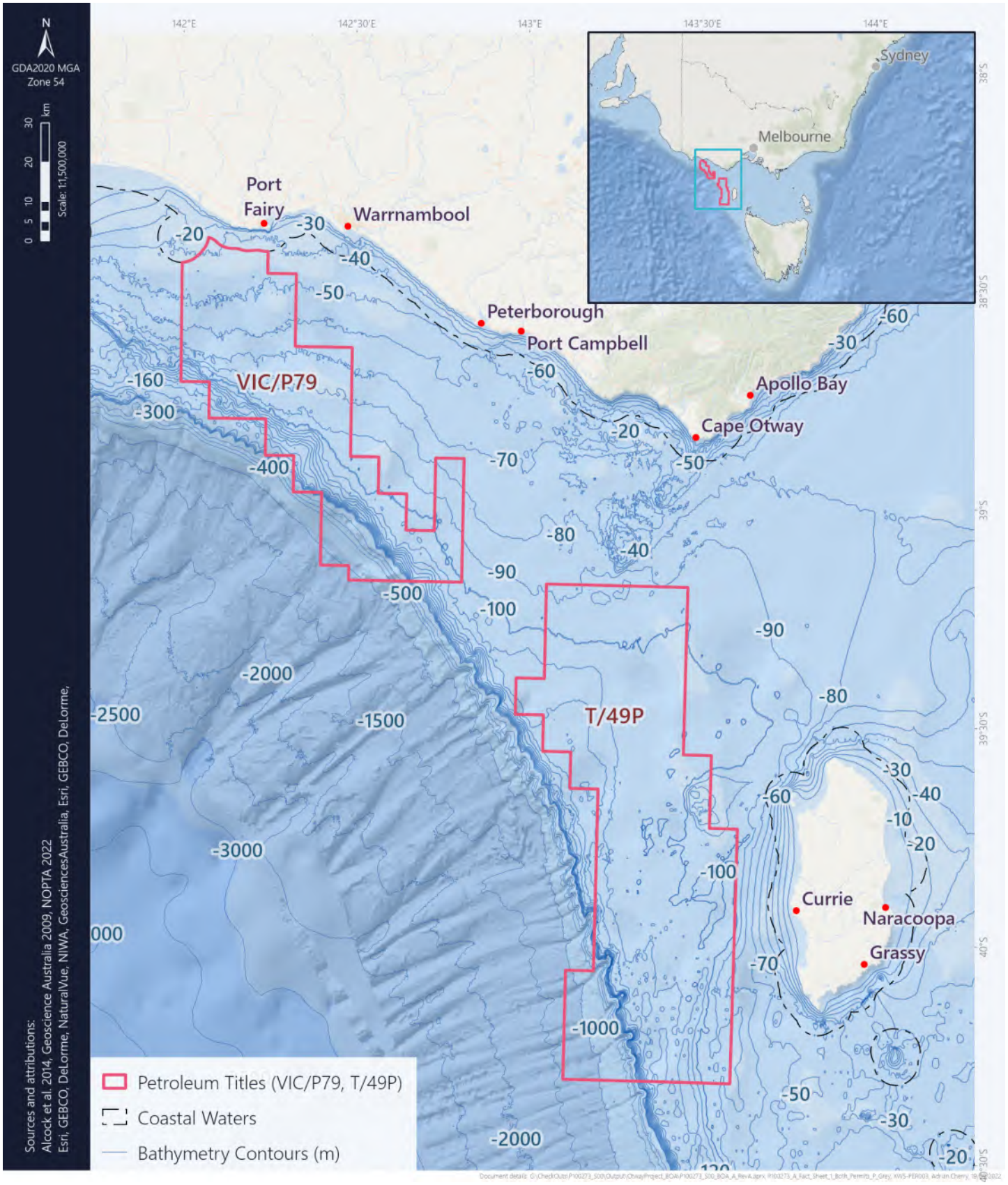
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Map of Permit Areas



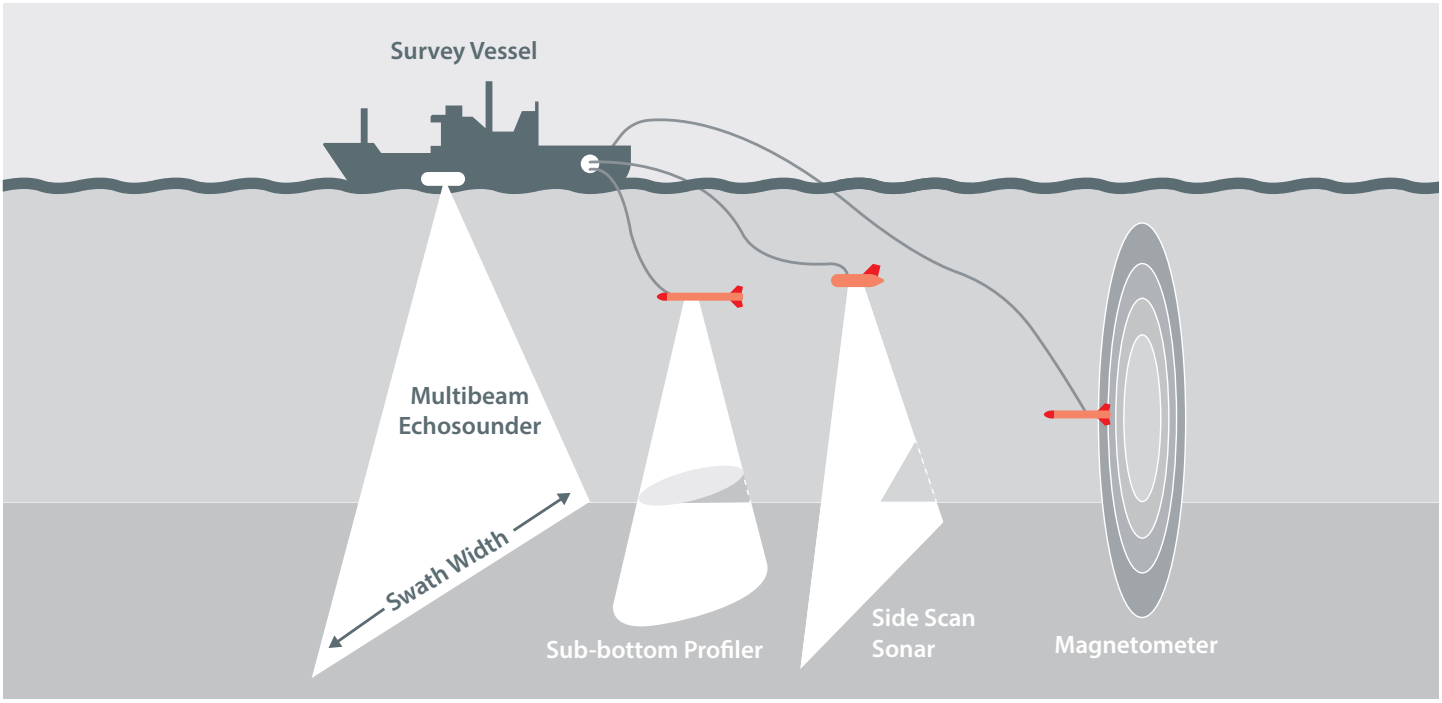
Activity Phases

An overview of the activity phases involved in drilling an exploration well is provided below.

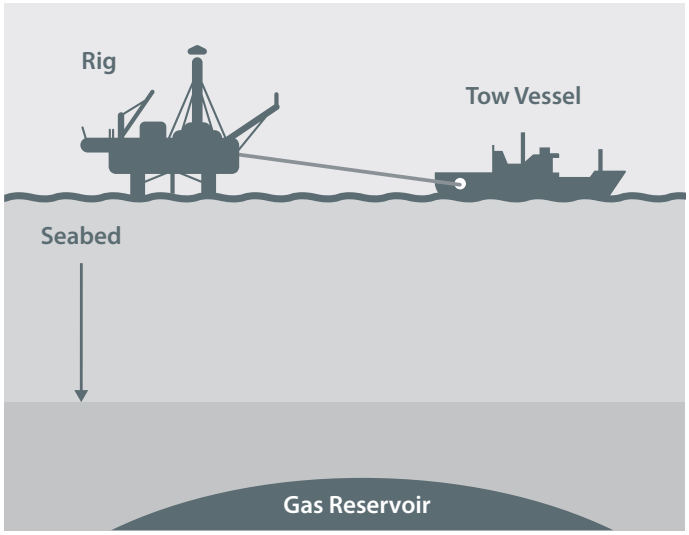
A seabed survey is undertaken across all drilling locations to identify possible hazards and natural features which may impact anchoring. Common seabed survey equipment includes: multi-beam echosounders, side scan sonars, subbottom profilers and magnetometers.

Each well will take a maximum of 90 days to drill but typically takes 30-40 days. The extra time accounts for potential operational delays and environmental constraints like severe weather events. After a well is completed the drilling rig is moved to the next location.

Seabed Survey

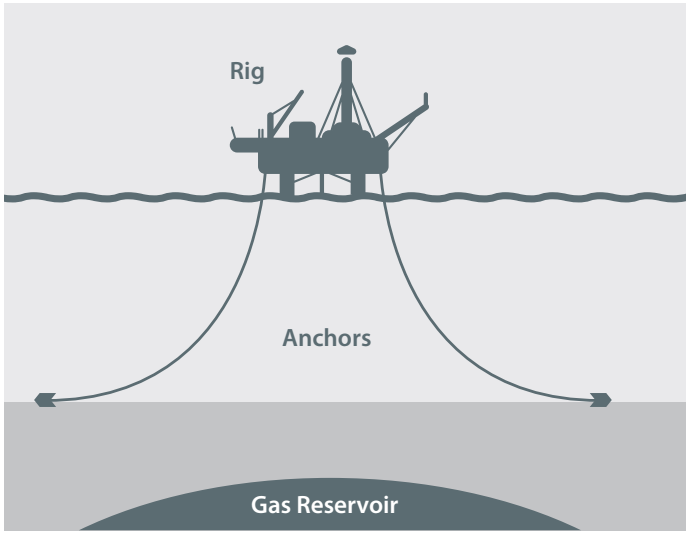


1. Rig towed to site



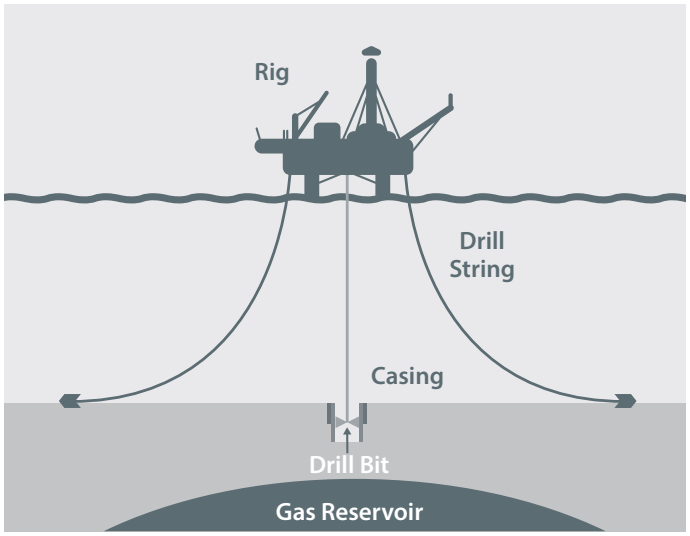
A drilling rig is towed to the drilling location.

2. Anchors laid on seabed



Anchors are laid on the seabed and can be laid prior to or on arrival of the drilling rig.

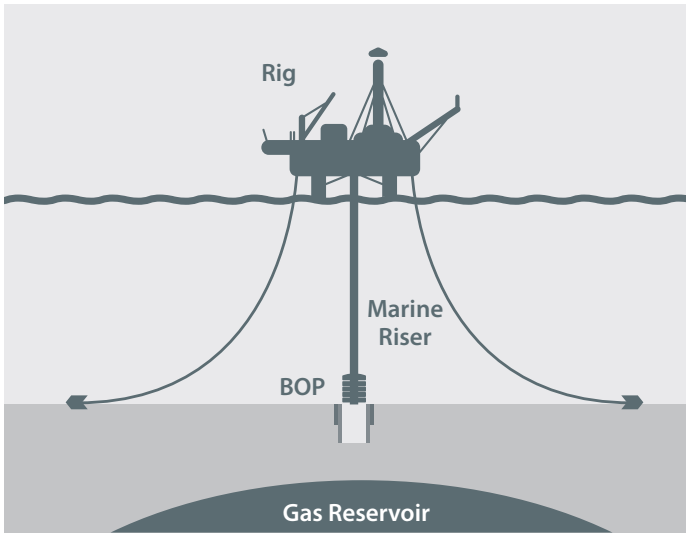
3. Top hole constructed



The top hole is drilled and then cased with cement and steel. The top hole is approximately 1m in diameter.

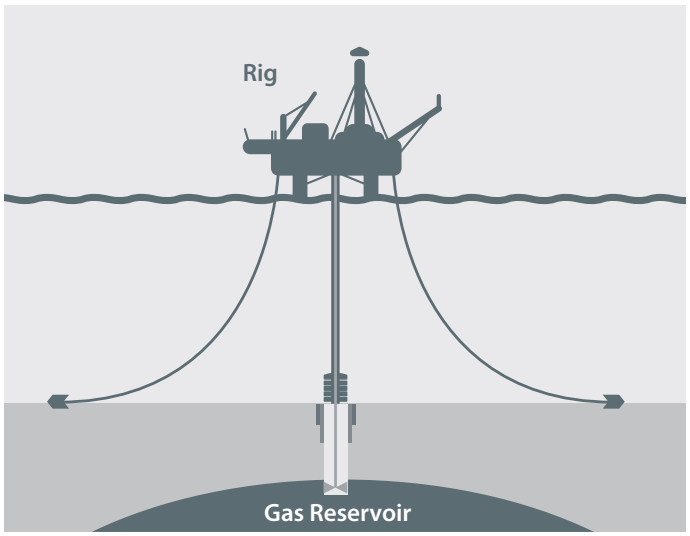
Supply boats will regularly service the rig throughout the drilling process.

4. Marine riser and blow-out preventer (BOP) installed



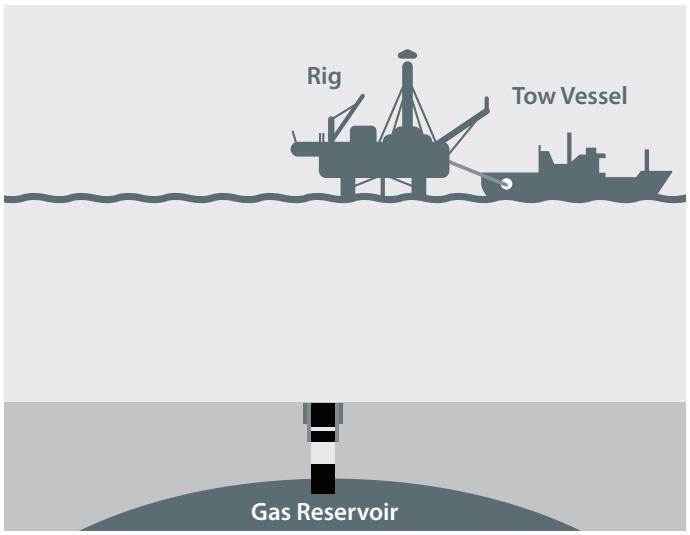
The marine riser returns drilling fluids and cuttings to the drilling rig for reconditioning, recirculation and/or discharge. The BOP is an assembly of specialised safety valves put in place before drilling into the reservoir and is used in the unlikely event of an emergency to control well pressure and prevent a loss of well control release.

5. Drill and construct well to gas reservoir



In the event that a gas reservoir is discovered, the well may be tested by flowing gas to the surface for analysis and then flaring through the flare boom.

6. Well permanently plugged and abandoned



Cement plugs are placed within the well as part of a process called plug and abandonment. The marine riser, BOP and wellhead are removed so no equipment is protruding from the seabed. The anchors are then removed so the drilling rig can be towed to the next drilling location or demobilised from the area on completion of the program.

Regulatory Framework

Offshore petroleum activities are regulated under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGS Act) which requires an accepted EP to be in place for the proposed exploration program.

An EP is a comprehensive document that provides information on the proposed activities and interactions with the marine, socio-economic and cultural heritage environment. The EP will describe and assess the environmental impacts and risks associated with the proposed activities. It also outlines control measures to avoid, minimise and mitigate environmental impacts and risks.

Consultation

As part of EP development ConocoPhillips Australia will undertake consultation in line with a prescribed regulatory process. Information will be provided to authorities, individuals and organisations so that they can understand the potential consequences of the exploration drilling program on things that they value and/or activities they undertake. Feedback provided to ConocoPhillips will be considered in the design and conduct of our activities.

Under the OPGGS Act all records of consultation including emails, phone calls and meetings, are required to be submitted to NOPSEMA with the EP for assessment.

About ConocoPhillips:

ConocoPhillips is the one of the world's largest independent exploration and production companies and has operated in the offshore environment for more than 75 years. We are committed to our role in responsibly accessing, developing and producing oil and natural gas to help meet the world's energy needs.

ConocoPhillips Australia was established almost two decades ago. Headquartered in Brisbane, Queensland, we are a 47.5 percent shareholder in Australia Pacific LNG and operate the LNG facility on Curtis Island. We are also pursuing exploration opportunities in Australia. In Australia we have a proud track record of safety, environmental and social performance and are an active and valued member of the communities in which we operate.



Australia Pacific LNG Facility on Curtis Island.

Questions

and Answers

What is a seabed survey?

Seabed surveys are an important safety and environmental measure undertaken ahead of drilling activities. They typically involve geophysical and geotechnical sampling techniques that identify possible hazards and benthic habitat to inform exploration well and drilling rig anchor placement.

Seabed surveys typically take about a week to complete at each drilling location.

How is a seabed survey different from a seismic survey?

Seabed surveys are designed specifically to map the seabed and directly below the seabed (up to ~100 m), whereas seismic surveys are designed to image the subsurface up to several kilometres below the seabed.

Sound generated from seabed survey sampling techniques is significantly lower in intensity and duration than sound produced from a seismic array.

How will environmental impacts be assessed in the EP?

Exploration activities do not operate to a no-impact standard. Instead, ConocoPhillips Australia is required to define the acceptable level of impact and work below that level. Acceptable levels of impact are established based on relevant up-to-date technical and scientific studies, government advice, and are considerate of the information gathered through the consultation process.

ConocoPhillips Australia will utilise this information to make predictions of the levels of impact we expect to occur and compare those to the previously defined acceptable levels. Our assessment is then scrutinised by NOPSEMA who will determine if the EP demonstrates that the environmental impacts and risks of the activity will be of an acceptable level and that the EP meets all of the requirements of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009.

How will impacts to commercial fishing and commercial marine users be managed?

The proposed exploration activities will occur in designated Commonwealth and state fishery management areas. The seabed survey and drilling activities require access to relatively small areas for short periods of time. However, these activities may displace commercial fishing activities and other commercial marine users. ConocoPhillips Australia will consult with commercial fishers and other marine users to ensure impacts from displacement are assessed and mitigated.

Will there be exclusion zones?

Yes, two types of exclusion zones will be in place at set times and locations.

Exclusion zone – All vessels will be required to abide by a cautionary zone which covers a 2 km radius around the drilling rig once in position. This zone is to allow for anchors, mooring chains and wire to be placed within the operational area during the drilling program.

Petroleum Safety Zone (PSZ) – The PSZ is a formal 500 m radius safety exclusion zone around each drilling location and will be communicated via a 'Notice to Mariners' by the Australian Hydrographic Office (AHO).

How will impacts to the marine environment be managed?

During preparation of the EP, ConocoPhillips Australia will build on our knowledge and identify current, peer reviewed literature and research on the impacts of our activities to the marine environment, particularly in relation to impacts to marine mammals and commercially fished species. Through relevant persons engagement we will aim to gain a deeper understanding of potential concerns and use this knowledge to help us minimise our impacts and protect ecological, social, economic and cultural values and sensitivities.

What are the typical environmental impacts associated with an exploration program?

Typical impacts associated with exploration activities are provided in the table below. ConocoPhillips Australia will conduct a detailed assessment of impacts specific to the proposed exploration program and unique operating environment. We will present these in the EP along with information on how these impacts will be managed and mitigated.

Aspect	Activity	Impacts
Seabed Disturbance	• Seabed Survey • Drilling	• Seabed samples may be collected during seabed surveys, resulting in localised disturbance of the seabed. • Anchor placement and drilling activities will result in localised seabed smothering and increased turbidity. • Impacts are expected to affect localised areas within a 2 km radius of each well.
Underwater Sound Emissions	• Seabed Survey • Drilling	• Seabed survey activities typically emit levels of sound similar to other vessel activities for short durations (typically ~1 week per drilling location.). • Underwater sound from drilling and support vessel activities has the potential to cause physiological impacts near the source and behavioural impacts to marine fauna within tens of kilometres depending on operations and location.
Atmospheric Emissions	• Seabed Survey • Drilling	• Atmospheric emissions from survey and drilling activities are localised and rapidly disperse in the vicinity of the vessels and rig.
Planned Vessel/Rig Discharges	• Seabed Survey • Drilling	• Routine discharges from support vessels and drilling rigs are similar to passing ships and other vessel discharges, which are managed to relevant standards and expected to disperse rapidly.
Planned Drilling Discharges	• Drilling	• Cement, cuttings and drilling fluid discharges occur during drilling activities resulting in temporary environmental effects out to tens of metres from each well.
Interference with Other Marine Users	• Seabed Survey • Drilling	• Seabed surveys are undertaken by vessels over short durations (typically 1-week per drilling location) and cover small areas. • Drilling rigs are stationary while drilling and are attended by support vessels who monitor a 500 m Petroleum Safety Zone and larger (typically 2 km radius) cautionary area to support safe operations. Notice to Mariners are issued and standard maritime safety precautions are in place.
Light and Visual Amenity	• Drilling	• The drilling rig may be visible from nearby coastlines while in transit and during drilling. • Flaring may be required over a few days at each drilling location and may also be visible from nearby coastlines.

What are the typical environmental risks considered in an EP?

Typical environmental risks that could occur and are assessed in exploration EPs include:

Vessel based risks, which include:

- Loss of material or waste overboard
- Interactions with marine fauna
- Introduction and establishment of invasive marine species

Hydrocarbon related risks, which include:

- Minor loss of containment
- Marine diesel oil releases
- Loss of well control releases

How are oil spill risks managed?

An Oil Pollution Emergency Plan (OPEP) is required to be submitted with the EP to NOPSEMA. The OPEP details the arrangements in place for responding to, monitoring and managing the highly unlikely release of hydrocarbons during the exploration program. The OPEP is based on the most conservative (i.e. worst-case) credible scenarios to ensure that the arrangements in place are adequate for any event.

Why is ConocoPhillips Australia continuing to explore for natural gas?

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market.

As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

What happens if ConocoPhillips Australia finds natural gas?

Exploration wells are drilled to confirm the presence or absence of natural gas reserves. Further drilling may be required to determine if commercial quantities of natural gas are present. If it is feasible to develop the discovered gas resource ConocoPhillips Australia would prepare an Offshore Project Proposal (OPP) detailing future development plans that may lead to production of natural gas. The development of the OPP would involve consultation and public comment prior to assessment by NOSPEMA. If an OPP is accepted, individual EPs, including relevant persons consultation, would still be required for subsequent development and production activities.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com

T: 07 3182 7122

PO BOX 1243, MILTON, QLD, 4064

conocophillips.com.au

ConocoPhillips Australia

Otway Exploration Drilling Program

ConocoPhillips Australia

Project Update

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

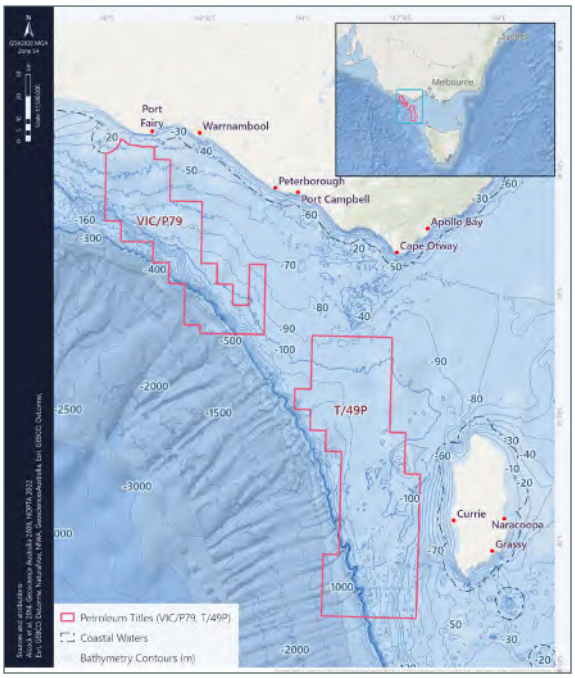
ConocoPhillips Australia is proposing to undertake an exploration drilling program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than January 2024.

This information sheet summarises the next phase of our Environment Plan development and consultation, where we will be establishing the context of our proposed activity. We are now able to share a more detailed description of our activity and the existing environment, and a preliminary environmental impact and risk assessment, as well as information on the legislative requirements that apply to our activity.

We have also created an online mapping tool where individuals, organisations and associations can share feedback about locations of environmental values and sensitivities.

Permit Areas



KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment . Any decision to proceed to development will be dependent on a conducive investment environment.
- A preliminary environmental impact and risk assessment has been developed to inform ongoing EP development and to support consultation.
- ConocoPhillips Australia is now looking for feedback on values and sensitivities within the environmental planning area to help inform our assessments.
- Individuals, organisations and associations are invited to share feedback on locations with values and sensitivities through an online interactive map via the consultation hub.

Activity Overview

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

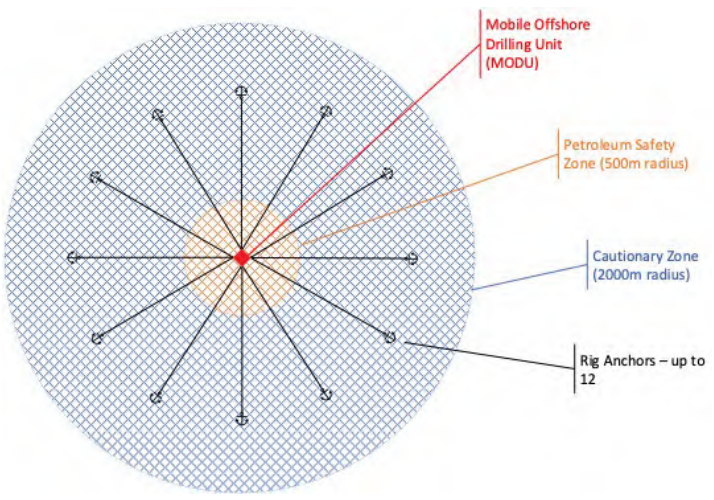
ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as outlined below.

Parameter	Seabed Survey	Drilling
The broadest timeframe and spatial extent of the activity		
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells).
Spatial extent (within which activity can occur)	Operational Areas within T/49P and Vic/P79	Operational Areas within T/49P and Vic/P79
Narrowing the timing and location of the activities to the current best estimates		
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km^2 (Nine locations, each 6 x 6 km) within Operational Areas	75 km^2 (Six locations, each a 2 km radius Drilling Area) within Operational Areas

Exclusion Zones

During drilling, three types of exclusion zones will be in place at set times and locations:

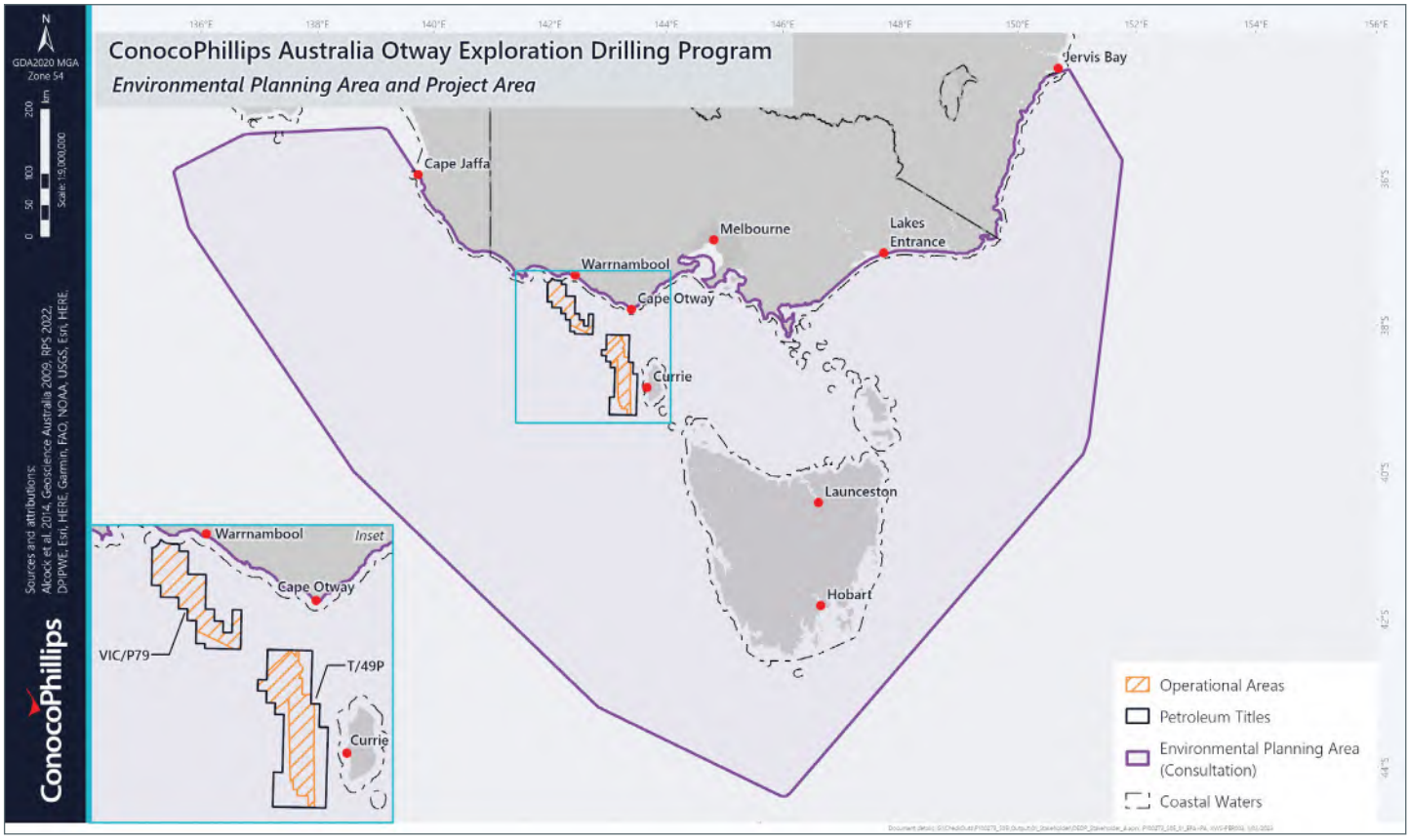
- **Safe Navigation Area** – A 500 m radius safe navigation area will be established around seabed survey vessels and any towed equipment when conducting seabed surveys.
- **Petroleum Safety Zone** – A 500 m radius petroleum safety zone will be enforced around each drilling location once the drilling rig is in position.
- **Cautionary Zone** – A 2 km radius cautionary zone will be established around the drilling rig once in position. This zone will cover the area of seabed anchors and mooring equipment and will be maintained by support vessels.



Environmental Planning Area Map

The Environmental Planning Area has been established as the largest physical area ConocoPhillips Australia will use for planning the proposed Otway Exploration Drilling Program and includes the marine environment and a 1 km buffer into coastal areas. This area has been established to support the identification of marine and coastal environmental values and sensitivities, and relevant persons and organisations with functions, interests and activities that may be affected by the proposed activity.

Environmental Planning Area Map



Understanding the Existing Environment

The marine environment of the offshore Otway Basin, Victoria is a diverse and dynamic ecosystem that supports a range of important physical, ecological, socio-economic and cultural activities and values. Understanding the existing environment creates a reference point from where we can evaluate the impacts and risks of the proposed Otway Exploration Drilling Program. The existing conditions are also used to determine the significance of the impacts and risks and to identify any necessary mitigation measures, management strategies or additional baseline studies.

The Environmental Planning Area encompasses a wide range of habitats and marine species including fish, crustaceans, birds, marine turtles, marine mammals and kelp forests. The marine environment also supports a range of cultural values and socio-economic activities including, but not limited to, commercial fishing, shipping, gas production and recreational activities.

The table below provides an overview of environmental considerations and why they are assessed in an Environment Plan.

Table 1 Environmental Considerations

Environmental Component		Understanding Required	Sub-components Considered
Physical Environment	The physical environment refers to the non-living natural elements of an ecosystem	Understanding the physical environment is essential for comprehending the functioning of an ecosystem and for developing sustainable management practices that preserve and enhance the ecological, socio-economic and cultural values of the environment.	• Water quality. • Sediment quality. • Air quality. • Climate. • Ambient light. • Ambient sound.
Ecological Environment	The ecological environment refers to the living components of an ecosystem, as well as their interactions with each other and with the nonliving elements of the environment.	Understanding the ecological environment is important for conserving biodiversity, preserving the integrity and functioning of ecosystems and supporting the livelihoods of communities.	• Benthic habitats and communities. • Coastal habitats and communities. • Plankton invertebrates. • Fish. • Birds. • Marine reptiles • Marine mammals • Conservation values and sensitivities.
Socio-economic Environment	The socio-economic environment refers to the social and economic relationships between people and the environment including the physical, psychological and economic elements that shape human well-being.	Understanding the socio-economic environment is critical for developing effective and equitable environmental management strategies that balance the needs of people with the conservation of the environment.	• Coastal communities. • Commercial fisheries. • Defence activities. • Offshore petroleum activities. • Offshore renewable energy activities. • Other offshore infrastructure. • Tourism. • Recreational diving and fishing. • Shipping.
Cultural Environment	The cultural environment refers to both First Nations and European cultures.	Understanding the cultural environment is critical for developing effective and equitable management strategies that consider cultural values and sensitivities that may be affected by environmental change.	• First Nations Peoples. • Native Title. • Maritime archaeological heritage (including shipwrecks).

Identifying Environmental Values and Sensitivities

To support our understanding of the marine environment of the offshore Otway Basin, ConocoPhillips Australia is inviting individuals, organisations and associations to provide additional context and feedback on our proposed activity through an online collaborative mapping process.

Individuals, organisations and associations are encouraged to visit the consultation hub and use the interactive map to identify (pin) locations of interest or concern and provide additional information or comment on existing pins.

Environmental values and sensitivities can be physical, ecological, socio-economic and/or cultural.

Questions and Answers

What is an environmental value and sensitivity?

Environmental values and sensitivities include rare, important and/or sensitive physical, ecological, socio-economic and/or cultural features of the environment. Examples from NOPSEMA are provided below:

- The values and sensitivities of the marine environment may include benthic communities and habitats, marine fauna and the quality of the water, sediment and biota.
- The values and sensitivities that exist in relation to Protected Matters (Part 3 EPBC Act) may include World Heritage Values, National Heritage Values, the ecological character of declared RAMSAR wetlands, listed threatened species and ecological communities, listed migratory species and Marine Parks.
- The values and sensitivities of socio-economic features of the environment including the rights of other users which are to be managed responsibly.

Other examples may include biologically important areas, habitats critical to the survival of threatened species, key ecological features, marine and coastal industries (i.e., commercial shipping, Defence, petroleum exploration and production), marine tourism and recreation, and Commonwealth and State managed commercial fisheries, and cultural heritage features and values.

Will ConocoPhillips Australia only assess the Environmental Components and Sub-components listed above?

Through the feedback that we receive during consultation, we will continue building on our understanding and learnings of the environmental values and sensitivities during our Environment Plan process. Those learnings that are predicted to cross-over with our proposed activities will be carried through to the full assessment of impacts and risks which will be detailed in our EP and sent to the regulator for assessment.

How will environmental impacts and risks be assessed in the EP?

Exploration activities do not operate to a zero-impact standard. Instead, ConocoPhillips Australia is required to define the acceptable level of impact, and work below that level. Acceptable levels of impact are established based on relevant up-to-date technical and scientific studies, government advice, and are considerate of the information gathered through the consultation process.

The predicted levels of impact and risk expected to occur are then compared to the previously defined acceptable levels. This assessment is then scrutinised by the independent regulator, NOPSEMA, who will determine if the EP demonstrates that the environmental impacts and risks of the activity will be of an acceptable level and meets all the requirements of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009.

Preliminary Environmental Impact and Risk Assessment and Relevant Legislative Requirements

Our Preliminary Environmental Impacts and Risk Assessment report and a list of currently identified legislative requirements are available online from the Consultation Hub Document Library.

Meet the Project Team

We will be visiting Victorian and Tasmanian coastal communities throughout May and June to meet with local businesses and community groups and to host information sessions. If you would like to be informed of upcoming information sessions to be held near you, please get in touch with us on otway@conocophillips.com

Contact us

Webinar

Can't get to an information session? Register for our online webinar series via our consultation hub.

The next Webinar will be held on Wednesday 23 May 2023 commencing at 5pm AEST.

Register here

Have we missed anyone?

If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

E: otway@conocophillips.com

T: 07 3182 7122

PO BOX 1243, MILTON, QLD, 4064

conocophillips.com.au

ConocoPhillips Australia

Commercial Fishing

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be seabed assessments which will commence no earlier than January 2024.

We are committed to ensuring that commercial fishers and offshore petroleum activities can sustainably coexist, that impacts are limited to interference to no greater extent than is necessary and that commercial fishers are no worse off as a result of the Otway Exploration Drilling Program.

This information sheet summarises the ongoing assessment of potential impacts and risks to the commercial fishing industry arising from ConocoPhillips Australia's Otway Exploration Drilling Program.

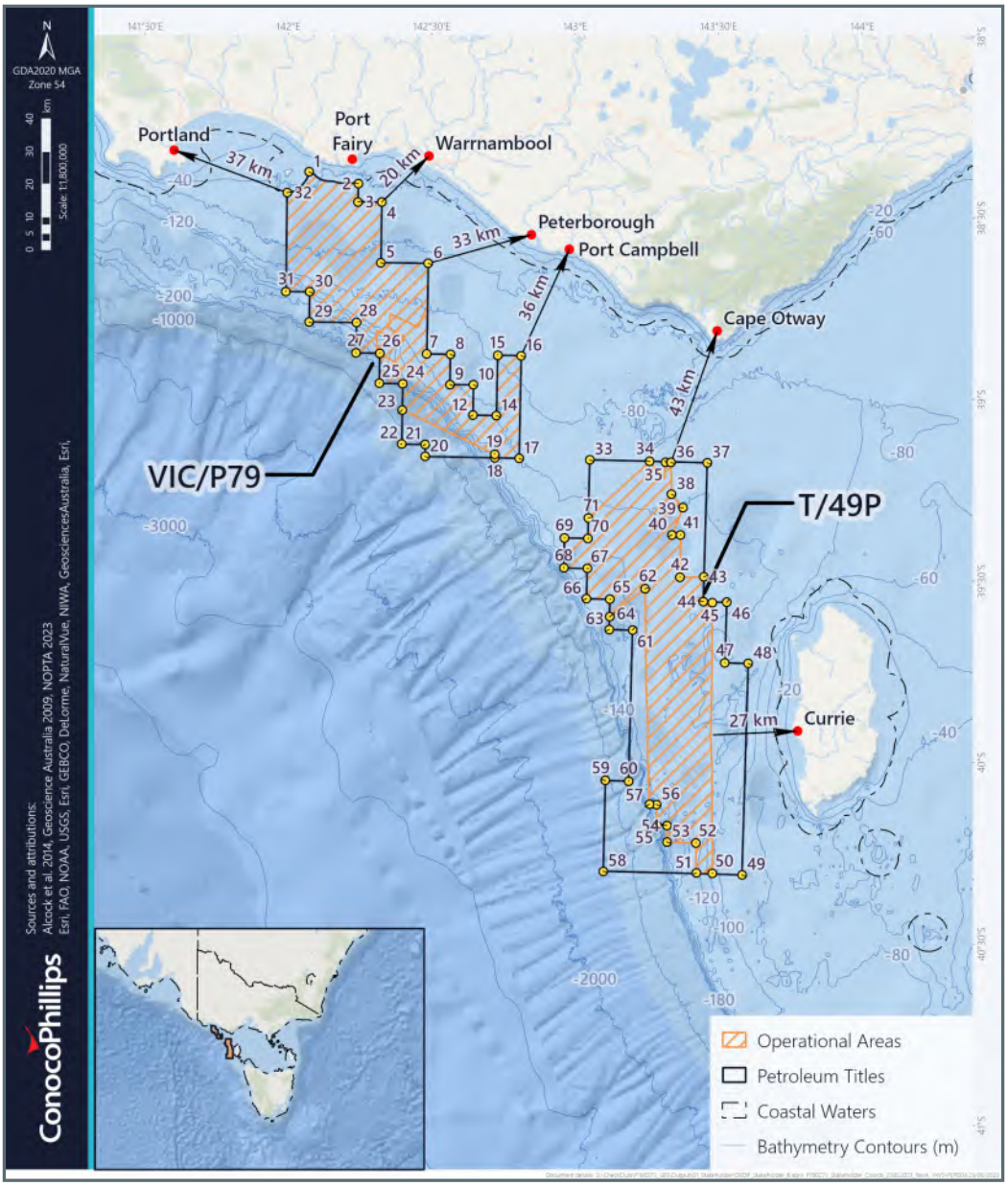
Figure 1 shows the permit areas and operational areas, within which exploration activities may occur.

KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The Otway Exploration Drilling Program is located within existing designated Commonwealth and State fisheries. Exploration drilling activities will occur in only very small areas within the fisheries area.
- Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.
- A preliminary assessment of potential impacts and risks to the commercial fishing industry has identified that:
  - Commercial fishers may be temporarily displaced from parts of the fisheries during exploration activities. Any displacement, i.e. through exclusion zones, would be communicated in a timely manner.
  - Impacts to fish and marine invertebrates from planned activities are predicted to be short term, limited within 10s to 100s of meters and will not affect the long-term sustainability of fisheries.
  - Potential risks from unplanned events have been identified and mitigation and management measures are being developed.

Map of Permit Areas

Figure 1



Coordinates

Label	Latitude (DMS)	Longitude (DMS)
1	-38° 25′3.131″	142° 4′39.232″
2	-38° 26′53.079″	142° 15′4.888″
3	-38° 29′54.69″	142° 15′4.894″
4	-38° 29′54.686″	142° 20′4.889″
5	-38° 39′54.694″	142° 20′4.908″
6	-38° 39′54.686″	142° 30′4.896″
7	-38° 54′54.697″	142° 30′4.924″
8	-38° 54′54.693″	142° 35′4.918″
9	-38° 59′54.697″	142° 35′4.927″
10	-38° 59′54.693″	142° 40′4.921″
12	-39° 4′54.696″	142° 40′4.93″
14	-39° 4′54.692″	142° 45′4.924″
15	-38° 54′54.684″	142° 45′4.905″
16	-38° 54′54.679″	142° 50′4.899″
17	-39° 11′54.694″	142° 50′4.933″
18	-39° 11′54.697″	142° 44′55.692″
19	-39° 11′18.194″	142° 44′49.999″

Label	Latitude (DMS)	Longitude (DMS)
20	-39° 11′54.708″	142° 30′4.951″
21	-39° 9′54.707″	142° 30′4.949″
22	-39° 9′54.71″	142° 25′4.953″
23	-39° 4′14.315″	142° 25′4.946″
24	-38° 59′54.705″	142° 25′4.938″
25	-38° 59′54.709″	142° 20′4.943″
26	-38° 54′54.706″	142° 20′4.935″
27	-38° 54′54.711″	142° 15′4.94″
28	-38° 49′54.706″	142° 15′4.932″
29	-38° 49′54.714″	142° 5′4.941″
30	-38° 44′54.71″	142° 5′4.932″
31	-38° 44′54.713″	142° 0′4.935″
32	-38° 28′31.755″	142° 0′4.902″
33	-39° 11′54.684″	143° 5′4.92″
34	-39° 11′56.572″	143° 17′52.217″
35	-39° 12′0.644″	143° 21′13.397″
36	-39° 12′1.03″	143° 22′24.381″

Label	Latitude (DMS)	Longitude (DMS)
37	-39° 11′54.664″	143° 30′4.89″
38	-39° 17′17.3″	143° 22′41.264″
39	-39° 19′27.132″	143° 25′13.929″
40	-39° 24′0.371″	143° 23′0.444″
41	-39° 23′55.841″	143° 24′47.592″
42	-39° 30′55.847″	143° 24′57.913″
43	-39° 30′47.539″	143° 30′1.633″
44	-39° 34′54.676″	143° 30′4.921″
45	-39° 35′2.601″	143° 31′58.008″
46	-39° 34′54.673″	143° 35′4.905″
47	-39° 44′54.677″	143° 35′4.906″
48	-39° 44′54.675″	143° 40′4.882″
49	-40° 19′54.686″	143° 40′4.966″
50	-40° 19′47.484″	143° 33′41.868″
51	-40° 19′48.944″	143° 30′10.185″
52	-40° 14′49.127″	143° 29′56.024″
53	-40° 14′47.42″	143° 23′40.631″

Label	Latitude (DMS)	Longitude (DMS)
54	-40° 12′5.982″	143° 23′34.74″
55	-40° 12′7.05″	143° 21′24.852″
56	-40° 8′39.816″	143° 21′12.975″
57	-40° 8′39.34″	143° 19′41.017″
58	-40° 19′54.707″	143° 10′4.993″
59	-40° 4′54.701″	143° 10′4.976″
60	-40° 4′54.697″	143° 15′4.971″
61	-39° 39′54.688″	143° 15′4.942″
62	-39° 33′0.546″	143° 17′31.908″
63	-39° 39′54.691″	143° 10′4.947″
64	-39° 37′47.264″	143° 10′8.348″
65	-39° 34′54.689″	143° 10′4.941″
66	-39° 34′54.692″	143° 5′4.946″
67	-39° 29′54.69″	143° 5′4.94″
68	-39° 29′54.694″	143° 0′4.945″
69	-39° 24′54.692″	143° 0′4.939″
70	-39° 24′54.689″	143° 5′4.934″
71	-39° 21′31.898″	143° 5′7.348″

Assessment of Commercial Fishing

Several Commonwealth and State fisheries (with recorded activity in the last five years) have been identified within the Otway Exploration Drilling Program's permit areas.

Commonwealth Fisheries	State Fisheries	
	Victoria	Tasmania
Southern and Eastern Scalefish and Shark Fishery • Commonwealth Trawl Sector • Scalefish Hook Sector • Gillnet Hook Trap Sector Shark Gillnet sub-sector • Gillnet Hook Trap Sector Shark Hook sub-sector	Giant Crab Fishery	Giant Crab Fishery
Bass Strait Central Zone Scallop Fishery	Rock Lobster Fishery	Rock Lobster Fishery
Southern Squid Jig Fishery	Wrasse (Ocean) Fishery	
	Octopus Fishery	
Eastern Tuna Billfish	Multi-species Ocean Fisheries	



Potential Effects on day-to-day Fishing Operations

ConocoPhillips Australia is aware that the Otway Exploration Drilling Program may interfere with the operation of Commonwealth and State fisheries and result in temporary displacement. There are three key aspects to potential displacement:

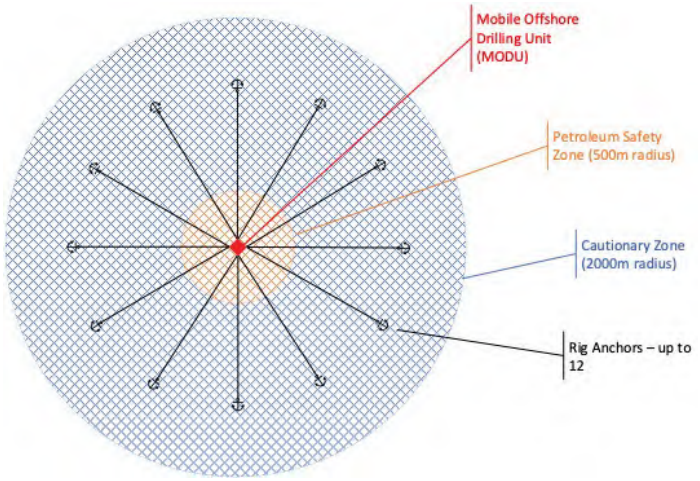
1. Location

Drilling will be undertaken at up to a maximum of six locations that are yet to be determined, but will be entirely within the permit areas. Once prioritised drilling locations are identified, seabed surveys will be conducted to identify possible hazards and natural features which may impact operations. Up to a maximum of six exploration wells will be drilled over both permit areas, with each taking typically between 30 to 40 days to complete. Specific seabed survey and drilling locations will be communicated with commercial fisheries prior to commencement.

2. Exclusion Zones

Exclusion zones are in place as a safety precaution for fishing vessels and crew as well as drilling equipment and crew. These zones allow anchors and mooring equipment to be placed within the operational area during the drilling program and prevent interactions or collisions with equipment or between vessels. Exclusion zones will be communicated via a 'Notice to Mariners' by the Australian Hydrographic Office. Three types of exclusion zones will be in place at set times and locations during the program:

- **Safe Navigation Area –** A 500 m radius safe navigation area will be established around seabed survey vessels and any towed equipment when conducting seabed surveys.
- **Cautionary zone –** a 2 km radius cautionary zone will be established around the drilling rig and once in position. This zone will cover the area of seabed anchors and mooring equipment and will be maintained by support vessels.
- **Petroleum Safety Zone –** A 500 m radius petroleum safety zone will be enforced around the drilling rig once in position at each drilling location.





3. Timing and Duration

Up to nine seabed surveys may be completed, each expected to take approximately 1 week to complete. Surveys will commence no earlier than January 2024.

For drilling, each well will typically take between 30 to 40 days, and a maximum of 90 days to complete accounting for operational delays and weather events.

Potential interactions with commercial fishing

ConocoPhillips Australia has assessed the potential for interactions between our planned activities and unplanned events that could affect commercially targeted fish and marine invertebrates such as the southern rock lobster.

The following table describes these events.

Aspect	Activity	Commercially relevant species	Assessment
Planned			
Underwater sound (Impulsive)	Seabed survey operations	• Marine invertebrates • Fish	Seabed surveys involve a range of geophysical assessment techniques with the most potentially environmentally impactive method being Sub-bottom Profiling (SBP). SBP uses an impulsive acoustic source to penetrate typically less than 100 metres into the seafloor to identify shallow geological hazards prior to drilling. The sound levels emitted during SBP do not reach or exceed any of the relevant thresholds for effects on fish, fish eggs and larvae or marine invertebrates.
	Well evaluation operations (during drilling)		An evaluation will be performed on all drilled wells to determine the well's ability to produce hydrocarbons. This may include a range of tests, with the most potentially environmentally impactive being Vertical Seismic Profiling (VSP). Fish and benthic invertebrates may be sensitive to the impulsive sound emitted from this activity, however, the short duration (maximum 20 hours per well), along with the likelihood of negative affect being restricted to within a few hundred metres of the source, reduce the potential for impacts to these species. Further, fish are expected to exhibit avoidance behaviour and swim away when sound reaches levels which may cause physiological effects[1].
Underwater Sound (Continuous)	Drilling rig and support vessel operations	• Marine invertebrates • Fish	Drilling and support vessel operations are expected to occur 24 hours a day for typically 30-40 days per well. Sound produced by these activities is predicted to reach the levels associated with physiological effects, recoverable injury and temporary threshold shift (TTS or temporary injury) for some fish species within 10 metres to the sound sources. For effect thresholds to be exceeded, fish would have to remain continuously at those distances for either 12 hours (temporary injury threshold) or 48 hours (recoverable injury threshold). Although there are no threshold criteria relevant to marine invertebrates for continuous sound, there is the potential for sub-lethal impacts[2].
Routine Operational Discharges	Seabed survey vessel, drilling rig and support vessel operations	• Marine invertebrates • Fish	Discharges from seabed survey vessels, the drilling rig and support vessels will be of low toxicity and dilute rapidly within the marine environment. These discharges are typical of marine vessels and are treated to meet relevant standards.
Routine Drilling Discharges	Drilling rig operations	• Marine invertebrates • Fish	Cement, cuttings and drilling fluid discharges occur during drilling activities, resulting in localised and temporary changes in water quality, but will dilute rapidly within the marine environment.

Potential Effects on day-to-day Fishing Operations *continued*

Aspect	Activity	Commercially relevant species	Assessment
Unplanned Events			
Introduction of Invasive Marine Species	Seabed survey vessel, drilling rig and support vessel operations	• Marine invertebrates • Fish	Drilling will occur in deep, well mixed waters which are unfavourable conditions for most invasive marine species. ConocoPhillips Australia will implement its Marine Assurance System and Invasive Marine Species Risk Assessment process to mitigate the risk of introduction, and vessels operating within permit areas will comply with Australian requirements for ballast water and biofouling management.
Accidental hydrocarbon release	Seabed survey vessel, drilling rig and support vessel operations	• Marine invertebrates • Fish	In the unlikely event of an accidental hydrocarbon release, an exclusion zone will be put in place resulting in the displacement of fishing activities. ConocoPhillips Australia and their contractors will have tested plans in place to support an effective and timely response to minimise the duration of any effects, including: • A Shipboard Oil Pollution Emergency Plan or Shipboard Marine Pollution Emergency Plan, depending on the class of vessel. • An Oil Pollution Emergency Plan. • A Source Control Emergency Response Plan. In addition, an Operational and Scientific Monitoring Program will be implemented to ensure that potential impacts to commercial fisheries are assessed and monitored to recovery. Impacts to fisheries from a hydrocarbon spill are expected to be limited to small numbers of juvenile fish, larvae and plankton, and are not expected to affect population viability or recruitment, or the long-term sustainability of the fisheries.
Interaction with Marine Fauna	Seabed survey vessel, drilling rig and support vessel operations	• Fish	Given the underwater sound emitted during exploration activities, fish are expected to exhibit avoidance behaviours resulting in a low likelihood of interaction. ConocoPhillips Australia will implement additional measures to minimise the risk of interaction, including: • Reducing vessel speeds within operational areas. • Minimising the number of vessels within operational areas at any one time; and • Implementing procedures to detect and protect marine fauna.

[1] *As accepted by McCauley (1994) in Environmental Implications of Offshore Oil and Gas Developments in Australia: Seismic Surveys.*

[2] *Day et al (2020), Lobsters with pre-existing damage to their mechanosensory statocyst organs do not incur further damage to exposure to seismic air gun signals (Lobsters with pre-existing damage to their mechanosensory statocyst organs do not incur further damage from exposure to seismic air gun signals - ScienceDirect)*

Questions

and Answers

How is ConocoPhillips Australia consulting commercial fishers for the Otway Exploration Drilling Program?

The proposed exploration activities will occur in designated Commonwealth and State fishery management areas. The seabed survey and drilling activities require access to relatively small areas for short periods of time, however, these activities may displace commercial fishing activities and other commercial marine users.

ConocoPhillips Australia has arrangements in place with Seafood Industry Victoria (SIV), the Tasmanian Seafood Industry Council (TSIC) and Tuna Australia to be the primary point for consultation with their members. All members may choose to engage directly with ConocoPhillips Australia at any point to represent their individual interests. To do this, contact ConocoPhillips Australia on the details below.

All other commercial fishers will be consulted individually by ConocoPhillips Australia unless directed otherwise.

We encourage commercial fishers to provide feedback, request a meeting and ask questions on the proposed activity by contacting us via the Otway Consultation Hub or email or telephone.

Will seismic surveys be used as part of the Otway Exploration Drilling Program?

No, seismic survey is not part of the Otway Exploration Drilling Program.

The sound emitted by vessel operations and exploration drilling is a continuous sound. Whereas, the sound emitted during a marine seismic survey is a non-continuous or impulsive sound. A number of studies predict that, for a range of species exposed to impulsive sounds, impacts occur at lower sound levels than for exposure to continuous sounds.

- *Vertical seismic profiling (VSP) may be conducted over a maximum of 20 hours at each well, and may not be conducted at all depending on specific well appraisal objectives. The sound generated during VSP is significantly lower in intensity and duration than sound produced from a seismic array.*

Seabed surveys are designed specifically to map the seabed and directly below the seabed (up to ~100 m), whereas seismic surveys are designed to image the subsurface up to several kilometres below the seabed. Sound generated from sub-bottom profiling during the seabed survey is significantly lower in intensity and duration than sound produced from a seismic array.

What is well evaluation and Vertical Seismic Profiling (VSP)?

Well evaluation is a process of assessing the potential of an oil or gas reservoir by drilling a well and conducting tests to measure its characteristics such as pressure, temperature and fluid properties.

One of the techniques used in well evaluation is called Vertical Seismic Profiling (VSP).

VSP involves measuring the seismic response of the rock formations surrounding the well by sending sound waves into the ground and recording the reflections. The data collected from the VSP can be used to create a picture of the rock formations and determine the location and size of potential hydrocarbon reservoirs.

Fish and benthic invertebrates may be sensitive to the impulsive sound emitted during VSP. However, the short duration (maximum of 20 hours per well), along with the likelihood of negative effects being restricted to within a few hundred meters of the source, reduce the potential for impacts to these species.

VSP sound levels are not predicted to result in permanent or temporary threshold shift to marine mammals and only localised behavioural disturbance, and are significantly lower than those produced during 3-dimensional (3D) marine seismic surveys.

Will ConocoPhillips Australia compensate commercial fishers if economically impacted?

Yes, ConocoPhillips Australia is committed to having a commercial fishing adjustment protocol in place prior to the commencement of the drilling program. ConocoPhillips Australia will work in consultation with identified peak fishing industry associations to develop this protocol.

Questions

and Answers *continued*

Will light impact commercial fishing species?

The National Light Pollution Guidelines (CoA 2020) do not provide specific guidance for the assessment of impacts to plankton, marine invertebrates or fish and, it is considered that impacts to these species are not likely to be significant.

Will dive-based fisheries be impacted?

Commercial divers have the potential to be impacted by underwater sound where certain exploration activities occur in close proximity to the shoreline and shallow waters. If vertical seismic profiling was to occur near the northern border of permit VIC/P79, Victorian dive-based fisheries would be impacted. Sound emissions from VSP will occur only once per well (maximum of six) for no longer than 20 hours. This activity has the potential to result in displacement for a maximum of 6 days over the entire exploration program for these fisheries, assuming all wells are drilled in the northern extent of VIC/P79, which is highly unlikely.

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed surveys which will commence no earlier than January 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

The process for selecting drilling locations involves several steps, including the acquisition and processing of seismic data, interpretation of the data to select high probability of success targets, and efficiency of the program to prove up resources with the least amount of wells. A summary of current activities to support this effort are described below:

1. Interpretation of seismic data: Skilled geoscientists analyse the processed data to identify potential drilling locations. They look for feature such as faults, folds and stratigraphic traps that could indicate the presence of hydrocarbons.
2. Selection of high probability targets: After identifying potential drilling locations, geoscientists prioritise them based on their likelihood of success. They consider factors such as the quality and quantity of the reservoir, the geologic complexity of the area and the cost of drilling.
3. Efficiency of the program: The goal is to prove up resources with the least number of wells, which involves optimising the drilling program whilst maximising the chance of success.

Overall, the process for selecting drilling locations is a complex and multidisciplinary effort that requires skilled professionals and advanced technology. It involves a careful balance of science, economics and risk management to ensure that drilling efforts are successful and efficient.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

ConocoPhillips Australia

Emissions and Discharges

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

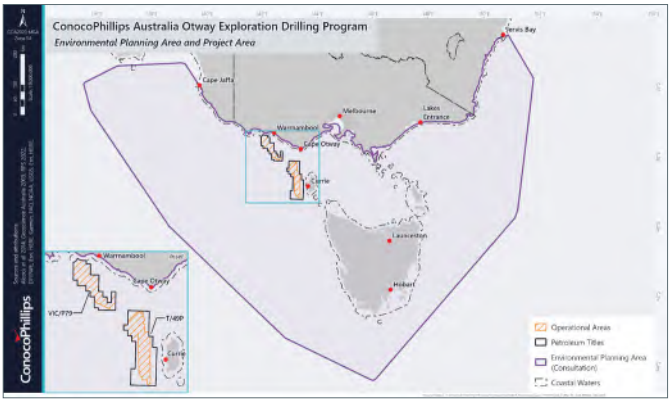
About the Otway Exploration Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed assessments which will commence no earlier than January 2024.

This information sheet summarises the ongoing assessment of potential impacts and risks arising from air emissions and planned discharges associated with the Otway exploration drilling program. Figure 1 below shows the permit areas, within which exploration activities may occur, and the Environmental Planning Area that has been applied to ensure that far ranging environmental values and sensitivities are appropriately identified and considered.

Environmental Planning Area Map



KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the Otway Basin and is preparing an Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The EP will include a detailed assessment of potential impacts and risks arising from the air emissions and planned discharges associated with the Otway exploration drilling program.
- A preliminary assessment of potential impacts associated with emissions and discharges has identified:
  - Air emissions from seabed survey vessels, the drilling rig and support vessels have the potential to result in localised changes in air quality.
  - Planned discharges from survey vessels, the drilling rig and support vessels have the potential to result in localised changes to water quality that will quickly dissipate in the water column.
  - Discharges from drilling operations, including drilling fluids and rock cuttings, cement, and small volumes of hydraulic fluid from testing subsea equipment, have the potential to result in localised changes to water and sediment quality.
- If you would like to ask questions or give feedback, see the contact details at the end of the document.

Emissions and Discharges Assessment

Activities conducted as part of the Otway Exploration Drilling Program will result in emissions to the atmosphere, as well as discharges to the marine environment. The detailed Emissions and Discharfes Assessment will be available online in the Impact and Risk Assment report which is currently being finalised.

Air Emissions

Air emissions are generated from the combustion of fuels to power the drilling rig, vessels and onboard equipment. Emissions are generally made up of a variety of different gases, some of which are classified as greenhouse gases (GHG). In the event that exploration drilling activities result in the discovery of hydrocarbons, well testing may be conducted which results in additional air emissions associated with short duration flaring.

Type	Potential impact	Assessment
Air Emissions	Operational activities and flaring involve the combustion of fuel which will primarily emit nitrogen dioxide, sulphur dioxide and carbon dioxide. These emissions will result in a localised reduction in air quality around the emission source and represent a source of greenhouse gases (GHGs).	These emissions are predicted to be small on a state, national and global scale, representing a minute contribution to the local airshed and overall GHG emissions, and will dissipate rapidly. Impacts from a reduction in air quality are expected to be short-term and limited to the immediate vicinity of the emission source, well within 2 km of each drilling area or vessel. Long-term impacts from the increase of GHGs in the atmosphere have been shown to contribute to the global impacts of climate change which has numerous direct and indirect impacts on various sensitive receptors.

Discharges

Operational activities conducted during the **Otway Exploration Drilling Program** will result in discharges to the marine environment including:

- Planned discharges from survey vessels, the drilling rig and support vessels which include (but are not limited to) treated sewage, grey water, oily water, food waste, bilge water, water treatment brine and cooling water.
- Drilling discharges to the seabed and sea surface including drilling fluids and rock cuttings, cement, and small volumes of hydraulic fluid diluted in potable water from testing subsea equipment.

Type	Potential impact	Assessment
Planned Discharges	Planned discharges will cause temporary and localised changes in water quality in the immediate environment surrounding the source. This change has the potential to affect fauna behaviour (e.g. increase scavenging behaviour) but is unlikely to cause injury or mortality to fauna.	Routine discharges are required to be treated to meet the International Convention for the Prevention of Pollution from Ships (known as MARPOL). Consequently, impacts will be highly localised and temporary, as the treated discharges are quickly broken down by microbial activity and dispersed by wave action and local ocean currents.
Drilling Discharges	The release of drilling discharges to the seabed and sea surface will result in localised changes in water quality, sediment quality and habitat composition. These changes may cause injury or mortality to marine species through toxicity or smothering.	Drilling discharges will be of low toxicity and will quickly dissipate in the water column or disperse on the seafloor. Impacts are expected to be short-term and restricted to smaller areas within 2 km of each well.

Reducing Impact

The objectives of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations (2009) are to ensure that any petroleum activity is carried out in a manner that is consistent with the principles of ecologically sustainable development as set out in section 3A of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Additionally, these activities must be carried out in a manner that reduces the environmental impacts and risks associated with them to as low as reasonably practicable (ALARP), while also ensuring that any remaining environmental impacts and risks are at an acceptable level.

These objectives are critical to the protection of the marine environment and marine ecosystems from negative impacts associated with offshore petroleum activities. The principles of ecologically sustainable development promote the responsible use of natural resources and emphasise the need to consider the long-term impacts of human activities on the environment.

Reducing environmental impacts and risks associated with offshore petroleum activities to ALARP is an important aspect of responsible and sustainable business practices in the offshore petroleum industry. This involves identifying potential environmental impacts and risks associated with an activity, implementing measures to minimise those impacts and risks, and continually monitoring and evaluating the effectiveness of those measures.

Ensuring that any remaining environmental impacts and risks are at an acceptable level is also critical to protecting the marine environment and marine ecosystems. This involves establishing acceptable environmental standards and thresholds for specific activities and ensuring that the environmental impacts and risks associated with an activity do not exceed those standards and thresholds.

Through the development of the Environment Plan and during consultation, ConocoPhillips Australia will identify and evaluate mitigation and management measures to minimise potential impacts to protected species, particularly during periods of peak biological importance. However, given the diversity of biologically important activities with differing peak periods, there is no perfect window where exploration activities can occur without the potential for impact in the absence of effective controls.

Examples of mitigation measures and activity limitations that will be implemented are listed below:

- Vessels will comply with Marine Order 97: Marine Pollution Prevention – Air Pollution for emissions from combustion of fuel, including:
  - Holding a valid Air Pollution Prevention (APP) certification or equivalent in accordance with MARPOL Annex VI.
  - Using low sulphur fuel in accordance with Marine Order 97: Marine Pollution Prevent – Air Pollution (Division 7).
  - Complying with National (AMSA) and International (IMO / MARPOL) Emissions and Discharge Standards for vessels.
- Fuel use and flaring volumes will be recorded and reported in alignment with the National Greenhouse and Energy Reporting Act 2007.
- ConocoPhillips Australia will implement a chemical selections procedure which requires all chemicals used and discharged to the sea to be environmentally acceptable by national and international standards, including the World Bank (2015) Environmental, Health and Safety Guidelines for Offshore Oil and Gas Development.
- ConocoPhillips Australia will implement a cuttings management system which reduces the volume of discharges that are release into the marine environment. The cuttings management system will be developed with adherence to international best practice standards, including the World Bank (2015) Environmental, Health and Safety Guidelines for Offshore Oil and Gas Development.
- Vessels will comply with Marine Orders 91, 95 and 96 which all deal with marine pollution prevention of different discharges i.e. oil, garbage and waste.
- Further, ConocoPhillips Australia has contracted a greenhouse gas (GHG) specialist to calculate the amount of GHG emissions that may be released from the various activities of the Otway exploration drilling program, so that these can be accounted for in both internal and external reporting.

Questions

and Answers

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will involve seabed surveys and will commence no earlier than January 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

ConocoPhillips Australia continues to interpret available data to prioritise and select final drilling locations with the highest likelihood of success. This process involves a careful balance of science, economics, and risk management to ensure that drilling efforts are safely executed with minimal impact to the environment.

Why can't drilling discharges be collected and disposed of onshore?

The process of collecting and transporting discharges to shore introduces a safety risk and would result in an increased offshore environmental impact due to additional vessel movements and their associated emissions.

Why do you need to flare?

The purpose of exploration drilling is to identify commercially viable natural gas reserves. To know whether a reservoir is suitable for development, the contents of the reservoir are tested onboard the drilling rig. Flaring is a high-temperature process used to burn waste gases containing combustible components such as natural gas. Flaring occurs from a remote and elevated location, using a specifically designed burner to promote clean and safe disposal of the combustible components. Flaring is the safest method to dispose of combustible components during a well test. In the event that a well test is conducted, flaring will occur up to a maximum flow rate of 40 MMscf for 120 hours per well over multiple short-term events and may be visible from shore depending on the drilling rig's location.

Will the air emissions or discharges impact wildlife?

Impacts from emissions and discharges produced during the activities are expected to cause short-term and localised reductions in air and water quality, which will be limited to the immediate vicinity of the release. The majority of the wildlife found within the area (e.g., seabirds, marine turtles, fish and marine mammals) are highly mobile and are not expected to remain near the source for long enough to be impacted. Impacts to plankton are expected to be localised and short-term and are not expected to result in impacts to foraging marine species, given the overall abundance of food resources within the region.

Can air emissions or discharges be harmful to humans?

The use of fuel to power drilling rig and vessel engines, generators and mobile and fixed plant will primarily result in emissions of carbon dioxide, nitrogen dioxide and sulphur dioxide. The inhalation of air emissions from the combustion of fuel could be harmful if a person was standing immediately downwind of the source or in a poorly ventilated area. However, emissions from the drilling rig and vessels are relatively small and will be emitted from well-ventilated areas to the environment, whereby they will be rapidly dispersed by moderate-strong winds typical of the Otway Basin. Petroleum activities are not expected to have any adverse impacts on the air quality of nearby coastal towns.

Discharges, such as drill cuttings (rock from the seabed) and drilling fluids from the drilling process, will be localised and will not reach the coastline. The extent of impact is predicted to be within 2 km of each well. The closest shoreline to the Otway exploration drilling program is 5.6 km away and therefore there is no predicted impact to coastal communities.

Questions

and Answers *continued*

What type of air emissions will the activities create?

Operation of the drilling rig and vessel engines, helicopters, generators and other equipment will release emissions to the atmosphere which include greenhouse gases (GHG) such as carbon dioxide (CO_2), methane (CH4) and nitrous oxide (N_2O), along with non-GHG, such as sulphur oxides (SO_X) and nitrogen oxides (NO_X). These emissions are typical for marine vessels when combusting hydrocarbons for power and will be short-term, for the duration of the activities.

Are drilling fluids harmful to the marine environment?

Drilling fluids that are discharged to the environment are considered to pose little or no risk to the environment, as assessed by the Oslo and Paris Conventions (OSPAR) and Offshore Chemical Notification Scheme (OCNS).

The OSPAR commission has identified substances considered to pose little or no risk to the environment based on their toxicity, biodegradation and potential to bioaccumulate. Drilling fluids are selected based on their low potential for toxic effects or bioaccumulation, and high biodegradation within the marine environment.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

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ConocoPhillips Australia

Seabirds, Penguins and Marine Turtles

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activity is a continuation of ConocoPhillips Australia's exploration activities in the offshore Otway basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Program

About the Otway Exploration Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed surveys which will commence no earlier than January 2024.

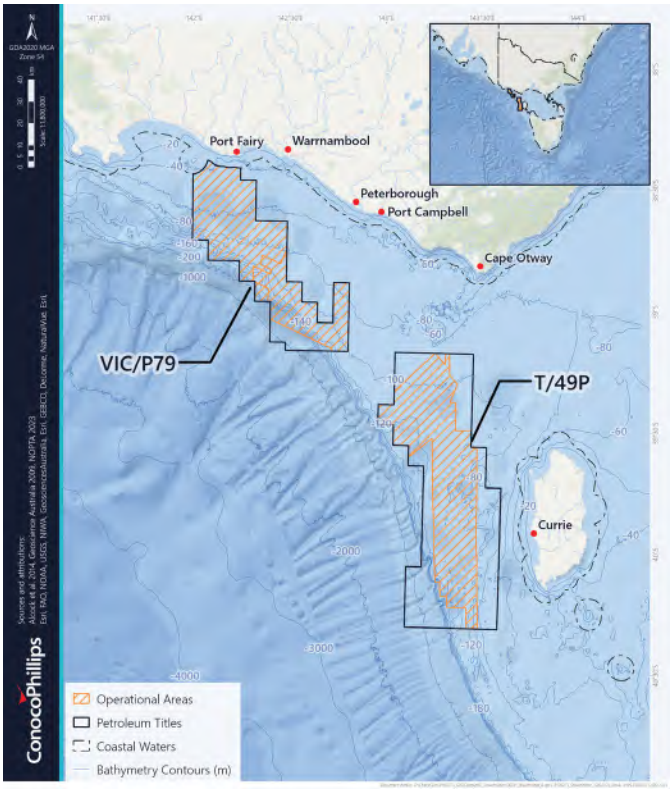
We are committed to ensuring that seabirds, penguins and marine turtles continue to undertake biologically important behaviours in the offshore environment, with no unacceptable impacts to critical life-cycles stages or population characteristics because of the Otway exploration drilling program.

This information sheet summarises the ongoing assessment of potential impacts and risks to seabirds, penguins and marine turtles arising from exploration activities.

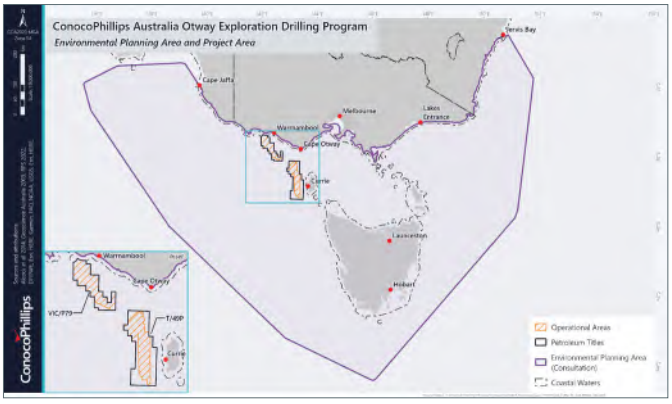
Figure 1 opposite shows the permit areas, the operational areas within which exploration activities may occur, and the Environmental Planning Area that has been applied to ensure that far ranging environmental values and sensitivities are appropriately identified and considered.

Map of Permit Areas

Figure 1



Environmental Planning Area Map



KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the Otway Basin and is preparing an Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The EP will include an assessment of potential impacts and risks to seabirds, penguins and marine turtles that might arise from the exploration program.
- A preliminary assessment of impacts and risks to seabirds, penguins and marine turtles has identified that:
  - Seabirds, penguins and marine turtles are known to be sensitive to the effects of artificial light, particularly during critical behaviours such as breeding and foraging for seabirds and penguins, and nesting and hatching for marine turtles.
  - Marine turtles are known to be sensitive to the effects of underwater noise. However, there are no biologically important behaviours or critical habitat essential to marine turtles identified in the area and their presence is expected to be of a transient nature.
  - A number of seabird species utilise the offshore Otway Basin for biologically important behaviours such as foraging, breeding and migration. Where underwater noise and artificial light have the potential to affect biologically important behaviours of threatened seabird species, effective control measures will need to be in place.
- The purpose of this information sheet is to provide details of potential impacts and risks that have been identified, as well as the measures proposed to reduce those impacts and risks, to support consultation prior to the submission of the Environment Plan.
- If you would like to ask questions or provide feedback, see the contact details at the end of the information sheet.

Seabirds, Penguins and Marine Turtles in the Area

There are several species of seabirds that are known to be present in the Otway Basin. Some of these species such as albatross and petrels, and penguins, are listed as Matters of National Environmental Significance and are protected under the Environment Protection and Biodiversity Conservation Act 1999. Many seabird species utilise the area for biologically important behaviours such as foraging, breeding and migration.

The following species are known to occur within the environmental Planning Area and exhibit one or more of these important behaviours:

- Caspian tern
- Common-diving petrel
- Black-faced cormorant
- Flesh-footed shearwater
- Great-winged petrel
- Greater crested tern
- Little penguin
- Pacific gull
- Short-tailed shearwater
- Shy albatross
- Soft-plumage petrel
- Sooty shearwater
- Wedge-tailed shearwater
- White-capped albatross
- White-faced storm petrel
- White-fronted tern

Marine turtles are highly migratory and rely on both marine and terrestrial habitats. Although they may occur within the Environmental Planning Area, no habitat critical to their survival occurs in the waters off southern Australia and they are not known to exhibit any identified biologically important behaviours in this area. The closest biologically important areas for marine turtles are located south of Brisbane, QLD, and at Shark Bay, WA. Even though the presence of individuals within the area is expected to be of a transient nature, the potential impacts of the Otway Exploration Drilling Program on marine turtles has been assessed as they are listed as Matters of National Environmental Significance and are protected under the Environment Protection and Biodiversity Conservation Act 1999.

Potential interactions with seabirds and marine turtles

The preliminary environmental impact and risk assessment has identified aspects of exploration activities that have the potential to impact, or pose a risk to, seabirds, penguins and marine turtles, as shown below.

Aspect	Potential for impacts to seabirds, penguins and turtles
Artificial Light	Minor consequences for seabirds, penguins and turtles
Underwater Sound	Minor consequence for marine turtles. Negligible consequences for seabirds and penguins
Interactions with Marine Fauna	Low risk to seabirds, penguins and marine turtles
Loss of Material or Waste Overboard	Low risk to seabirds, penguins and marine turtles
Accidental Release of Hydrocarbon	Low risk to seabirds and marine turtles.
	Medium risk to penguins.

Impacts and risks vary for different species. More detail is provided below for impacts and risks associated with light, underwater sound and accidental hydrocarbon releases.

Light

Routine operational lighting on survey vessels, the drilling rig and support vessels is a critical safety requirement for offshore activities and supports safe navigation. In addition, if hydrocarbons are found during exploration, a well test may be conducted involving short periods of flaring for the safe disposal of hydrocarbons.

The impact of routine operational and flaring-related light on marine fauna is highly dependent on the species' vulnerability and behaviours that occur within the area. As animals perceive light differently from humans, an understanding of the type of lights used and the nature of a species vision is required for assessment. Species of concern identified by the National Light Pollution Guidelines (2020)[1] include both seabirds and marine turtles.

Seabirds are most impacted by the intensity and colour of artificial lights. They are particularly sensitive to violet – blue wavelengths, long wavelengths when using their "daylight" adapted vision and short wavelengths when using their "dark" adapted vision. Seabirds may be attracted to the light glow of the drilling rig or vessels which increases the likelihood of injury through collision and may disrupt migration or foraging at sea. Disorientation due to artificial light is especially evident in nocturnal seabird species who migrate, forage, or return to their colonies at night. However, this is typically associated with areas closer to the coast. Artificial light is not identified as a threat in the National Recovery Plan for Threatened Albatrosses and Giant Petrels 2011-2016 (2011[2]). Given the large areas typically covered by foraging birds and the transient nature of these species in the area, artificial light is not expected to cause significant impacts to foraging behaviours.

Light emissions have the potential to impact little penguins as this species is known to occur within 20 km of the operational area. Typically, penguins are most impacted by light when it is directly illuminating nesting areas, as this may prevent individuals from returning to shore at dusk. Potential increases in light levels, particularly along coastline areas where little penguins are known to breed, are not expected to inhibit biologically important behaviours, as the light emissions at 20 km are equivalent to the ambient light on a night with a quarter moon.

Artificial light has been shown to impact critical nesting and hatching behaviours of marine turtles and is listed as a key threat in the Recovery Plan for Marine Turtles in Australia (2017)[3]. Although species may be present, there are no biologically important behaviours, like nesting and hatching, or critical habitat essential to marine turtles identified within southern Australia.

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[1] National Light Pollution Guidelines for Wildlife Including marine turtles, seabirds and migratory shorebirds (2020) by the Department of Environment and Energy. [2] National Recovery Plan for Threatened Albatrosses and Giant Petrels 2011-2016 (2011) by the Department of Environment and Energy. [3] Recovery Plan for Marine Turtles in Australia 2017-2027 (2017) by the Department of Environment and Energy

Underwater Sound

Much like humans, hearing plays an important role in communication for many animal species. For marine species, it is often also an essential tool for navigation and hunting. Additional noise emissions in the marine environment during the Otway Exploration Drilling Program will be caused by vessel and drilling rig movement and drilling. Marine species of concern include those who spend a significant portion of their time under water, like marine turtles. Each species will typically display different sensitivities to underwater noise.

There is potential for seabirds and penguins who spend time foraging at sea to be impacted by noise emissions. However, the majority of seabirds, such as albatrosses and petrels, are not anticipated to remain within the water column for an extended period of time, and penguins are highly mobile and are not expected to remain within relevant effect distances. Noise impacts are assessed over 12, 24 or 48-hour intervals, as the time exposed to the sound is related to the severity of impact. These intervals are typically longer than any seabird species would spend in the water column at one time, or any penguin would remain in the area, and therefore, seabirds and penguins are not expected to be impacted.

Currently, underwater noise impacts to marine turtles are not well understood. These species do not possess external ears. However, it is thought that sounds could potentially be used for navigational and hunting purposes. There is some evidence to support marine turtles' avoidance of areas where noise emissions are occurring. Although species may be temporarily displaced due to noise emissions, any individuals in the area are expected to be transient due to the absence of biologically important behaviours or critical habitat within southern Australia.

Shy Albatross



Reducing Impact and Risk

The objectives of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations (2009) are to ensure that any petroleum activity is carried out in a manner that is consistent with the principles of ecologically sustainable development as set out in section 3A of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Additionally, these activities must be carried out in a manner that reduces the environmental impacts and risks associated with them to as low as reasonably practicable (ALARP), while also ensuring that any remaining environmental impacts and risks are at an acceptable level.

These objectives are critical to the protection of the marine environment and marine ecosystems from negative impacts associated with offshore petroleum activities. The principles of ecologically sustainable development promote the responsible use of natural resources and emphasise the need to consider the long-term impacts of human activities on the environment.

Reducing environmental impacts and risks associated with offshore petroleum activities to ALARP is an important aspect of responsible and sustainable business practices in the offshore petroleum industry. This involves identifying potential environmental impacts and risks associated with an activity, implementing measures to minimise those impacts and risks, and continually monitoring and evaluating the effectiveness of those measures.

Ensuring that any remaining environmental impacts and risks are at an acceptable level is also critical to protecting the marine environment and marine ecosystems. This involves establishing acceptable environmental standards and thresholds for specific activities and ensuring that the environmental impacts and risks associated with an activity do not exceed those standards and thresholds.

Through the development of the Environment Plan and during consultation, ConocoPhillips Australia will identify and evaluate mitigation and management measures to minimise potential impacts to protected species, particularly during periods of peak biological importance. However, given the diversity of biologically important activities with differing peak periods, there is no perfect window where exploration activities can occur without the potential for impact in the absence of effective controls.

Examples of mitigation measures and activity limitations that will be implemented are listed below:

- ConocoPhillips Australia will develop and implement a Seabird Management Plan as per the National Light Pollution Guidelines for the activity. This plan will ensure that the light emissions are minimised to protect seabirds and other species in the area, and that procedures are in place to support grounded birds.
- Flaring will be restricted to a maximum of 120 hours per well and will only be conducted in the event that hydrocarbons are discovered to ensure safe disposal.
- Activity-specific emergency preparedness and response plans and capability will be in place prior to activity commencement. Wildlife response procedures will be incorporated into ConocoPhillips Australia's Oil Pollution Emergency Plan to be activated in the highly unlikely event of an accidental hydrocarbon release. These will include protection priorities relevant to seabirds and penguins, contacts for trained and specialist personnel, species collection and handling procedures and equipment requirements, and nearby veterinary and rehabilitation resources.

Questions and Answers

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will involve seabed surveys and will commence no earlier than January 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

ConocoPhillips Australia continues to interpret available data to prioritise and select final drilling locations with the highest likelihood of success. This process involves a careful balance of science, economics, and risk management to ensure that drilling efforts are safely executed with minimal impact to the environment.

Why is lighting needed?

The use of navigational and deck lighting is required by Commonwealth law to ensure safe operating conditions for personnel onboard survey vessels, the drilling drilling rig and support vessels, and for other users in marine waters.

What is flaring and why is it needed?

The purpose of exploration drilling is to identify commercially viable natural gas reserves. To know whether a reservoir is suitable for development, the contents of the reservoir are tested onboard the drilling rig. Flaring is a high-temperature process used to burn the waste gases containing combustible components such as natural gas. Flaring occurs from a remote and elevated location, using a specifically designed burner to promote clean and safe disposal of the combustible components.

Flaring is the safest method to dispose of combustible components during a well test. If a well test is conducted, flaring will occur up to a maximum flow rate of 40 MMscf for 120 hours per well over multiple short-term events and may be visible from shore depending on the drilling rig's location.

How far do light impacts extend from the activity?

The National Light Pollution Guidelines (2020) recommend that a 20 km distance is used for the assessment of impacts to sensitive species as it provides a precautionary limit based on observed effects of sky glow on marine turtle hatchlings demonstrated to occur at 15-18 km and fledgling seabirds grounded in response to artificial light 15 km away. Further, a 50 km threshold has been adopted to account for the combination of operational lighting and short-term flaring from the drilling drilling rig.

The light emissions at this distance are equivalent to ambient light on a moonless clear night sky/new moon. Any listed species sensitive to light that may occur within 50 km of the light source will undergo an impact assessment in the Environment Plan.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

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ConocoPhillips Australia

ConocoPhillips Australia

Other Marine and Coastal Users

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activity is a continuation of ConocoPhillips Australia's exploration activities in the offshore Otway basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed surveys which will commence no earlier than January 2024.

We are committed to sustainably co-existing with other marine and coastal users, and carrying out our offshore activities in a manner which does not interfere with other marine users' drilling rights to a greater extent than is necessary.

Figure 1 (overleaf) shows the proposed operational areas and provides coordinates for corner points and distances to nearby coastal communities.

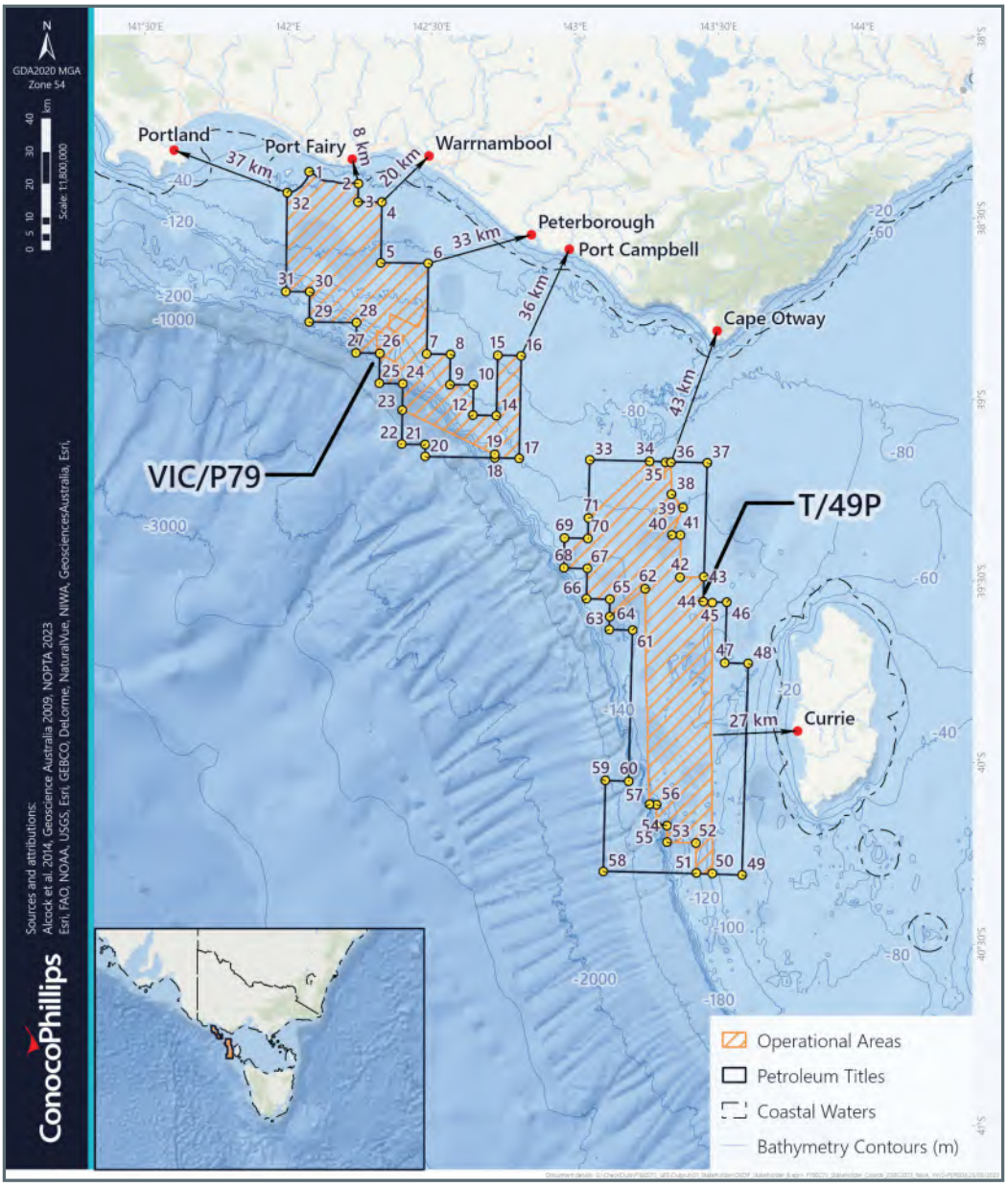
This information sheet summarises the ongoing assessment of potential impacts and risks to other marine and coastal users arising from the Otway Exploration Drilling Program.

KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the Otway Basin and is preparing an Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The Environment Plan will include an assessment of potential impacts and risks to other marine and coastal users that may arise from the exploration drilling program. This assessment has currently identified a number of marine and coastal users and values including recreation and tourism, commercial shipping, petroleum activities, renewable energy, defence activities, commercial fishing and cultural heritage.
- Exclusion zones will be established to support safe operations. These zones allow for anchors, mooring chains and wire to be placed within the operational areas during the drilling program and prevent interactions or collisions with equipment or between vessels.
- Recreational diving is likely to be restricted to coastal waters in depths <18 m but with more advanced diving possible to 40 m. Water depths within the operational areas range between 35 and 670 m, which is mostly beyond the recognised maximum recreational diving depth of 40 m, and also an unlikely depth for recreational swimming. The sound generated by the activity has the potential to reach shallower waters if the drilling activity is in the northern portion of permit VIC/P79.

Map of Permit Areas

Figure 1



Coordinates

Label	Latitude (DMS)	Longitude (DMS)
1	-38° 25′3.131″	142° 4′39.232″
2	-38° 26′53.079″	142° 15′4.888″
3	-38° 29′54.69″	142° 15′4.894″
4	-38° 29′54.686″	142° 20′4.889″
5	-38° 39′54.694″	142° 20′4.908″
6	-38° 39′54.686″	142° 30′4.896″
7	-38° 54′54.697″	142° 30′4.924″
8	-38° 54′54.693″	142° 35′4.918″
9	-38° 59′54.697″	142° 35′4.927″
10	-38° 59′54.693″	142° 40′4.921″
12	-39° 4′54.696″	142° 40′4.93″
14	-39° 4′54.692″	142° 45′4.924″
15	-38° 54′54.684″	142° 45′4.905″
16	-38° 54′54.679″	142° 50′4.899″
17	-39° 11′54.694″	142° 50′4.933″
18	-39° 11′54.697″	142° 44′55.692″
19	-39° 11′18.194″	142° 44′49.999″

Label	Latitude (DMS)	Longitude (DMS)
20	-39° 11′54.708″	142° 30′4.951″
21	-39° 9′54.707″	142° 30′4.949″
22	-39° 9′54.71″	142° 25′4.953″
23	-39° 4′14.315″	142° 25′4.946″
24	-38° 59′54.705″	142° 25′4.938″
25	-38° 59′54.709″	142° 20′4.943″
26	-38° 54′54.706″	142° 20′4.935″
27	-38° 54′54.711″	142° 15′4.94″
28	-38° 49′54.706″	142° 15′4.932″
29	-38° 49′54.714″	142° 5′4.941″
30	-38° 44′54.71″	142° 5′4.932″
31	-38° 44′54.713″	142° 0′4.935″
32	-38° 28′31.755″	142° 0′4.902″
33	-39° 11′54.684″	143° 5′4.92″
34	-39° 11′56.572″	143° 17′52.217″
35	-39° 12′0.644″	143° 21′13.397″
36	-39° 12′1.03″	143° 22′24.381″

Label	Latitude (DMS)	Longitude (DMS)
37	-39° 11′54.664″	143° 30′4.89″
38	-39° 17′17.3″	143° 22′41.264″
39	-39° 19′27.132″	143° 25′13.929″
40	-39° 24′0.371″	143° 23′0.444″
41	-39° 23′55.841″	143° 24′47.592″
42	-39° 30′55.847″	143° 24′57.913″
43	-39° 30′47.539″	143° 30′1.633″
44	-39° 34′54.676″	143° 30′4.921″
45	-39° 35′2.601″	143° 31′58.008″
46	-39° 34′54.673″	143° 35′4.905″
47	-39° 44′54.677″	143° 35′4.906″
48	-39° 44′54.675″	143° 40′4.882″
49	-40° 19′54.686″	143° 40′4.966″
50	-40° 19′47.484″	143° 33′41.868″
51	-40° 19′48.944″	143° 30′10.185″
52	-40° 14′49.127″	143° 29′56.024″
53	-40° 14′47.42″	143° 23′40.631″

Label	Latitude (DMS)	Longitude (DMS)
54	-40° 12′5.982″	143° 23′34.74″
55	-40° 12′7.05″	143° 21′24.852″
56	-40° 8′39.816″	143° 21′12.975″
57	-40° 8′39.34″	143° 19′41.017″
58	-40° 19′54.707″	143° 10′4.993″
59	-40° 4′54.701″	143° 10′4.976″
60	-40° 4′54.697″	143° 15′4.971″
61	-39° 39′54.688″	143° 15′4.942″
62	-39° 33′0.546″	143° 17′31.908″
63	-39° 39′54.691″	143° 10′4.947″
64	-39° 37′47.264″	143° 10′8.348″
65	-39° 34′54.689″	143° 10′4.941″
66	-39° 34′54.692″	143° 5′4.946″
67	-39° 29′54.69″	143° 5′4.94″
68	-39° 29′54.694″	143° 0′4.945″
69	-39° 24′54.692″	143° 0′4.939″
70	-39° 24′54.689″	143° 5′4.934″
71	-39° 21′31.898″	143° 5′7.348″

Overview

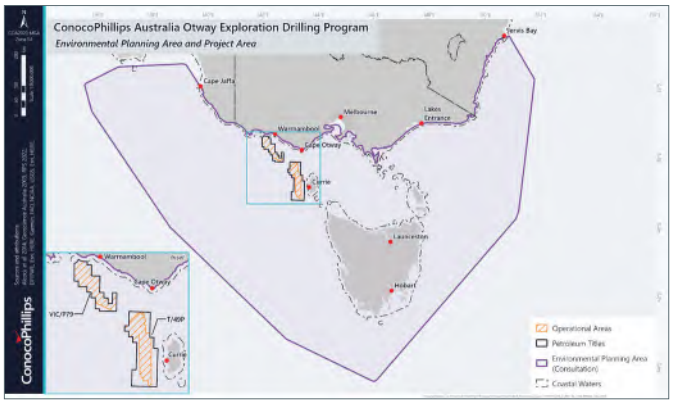
The Otway Exploration Drilling Program may affect the activities of other marine and coastal users. For example, the physical presence of seabed survey vessels, the drilling rig and support vessels used for the activity, and the establishment of exclusion zones, may result in the displacement of other marine users engaging in activities such as recreational and commercial fishing.

Other short-term petroleum activities, for example Vertical Seismic Profiling (VSP), have the potential to cause additional displacement if conducted in close proximity to coastal areas, with sound emissions from VSP limited to a maximum of 20 hours per well.

Figure 2 opposite shows the environmental planning area that has been applied to ensure that far ranging environmental values and sensitivities are appropriately identified and considered.

Environmental Planning Area Map

Figure 2



Potential Effects on Day-to-Day Activities

Potential displacement of other marine and coastal users will be determined by the following aspects:

1. Location

Up to six exploration wells will be drilled across both permit areas. The exact location of the wells is still to be determined.

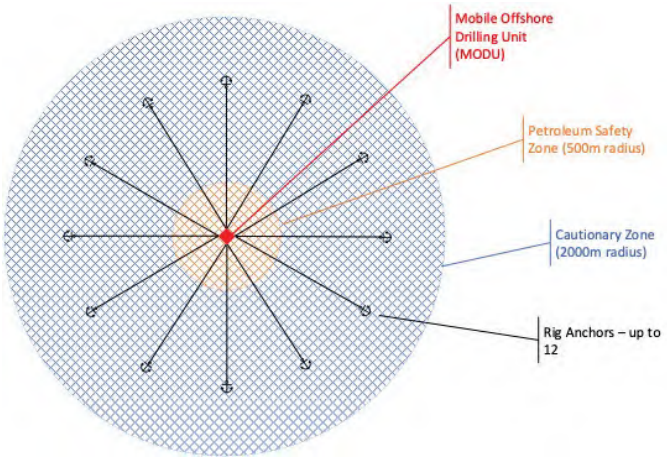
2. Exclusion Zones

Exclusion zones are put in place as a safety precaution. These zones allow for anchors, mooring chains and wire to be placed within the operational areas during seabed surveys and the drilling program and prevent interactions or collisions with equipment or between vessels. Three types of exclusion zones will be in place at set times and locations during the program.

3. Timing and Duration

ConocoPhillips Australia will undertake seabed surveys in up to nine locations, with the survey at each location expected to take approximately one week. Surveys will commence no earlier than January 2024.

For drilling, each well will typically take between 30 to 40 days but could take up to 90 days to complete, accounting for operational delays and weather events. Drilling will commence no earlier than October 2024.



Safe Navigation Area – A 500 m radius will be established around seabed survey vessels and any towed equipment when conducting seabed surveys.

Cautionary zone – a 2 km radius cautionary zone will be established around the drilling rig, once in position. This zone will cover the area of seabed anchors and mooring equipment and will be maintained by support vessels.

Petroleum Safety Zone (PSZ) – A 500 m radius petroleum safety zone will be enforced around the drilling rig once in position at each drilling location.

Reducing Impact and Risk

The objectives of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations (2009) are to ensure that any petroleum activity is carried out in a manner that is consistent with the principles of ecologically sustainable development as set out in section 3A of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Additionally, these activities must be carried out in a manner that reduces the environmental impacts and risks associated with them to as low as reasonably practicable (ALARP), while also ensuring that any remaining environmental impacts and risks are at an acceptable level.

These objectives are critical to minimising impacts and risks to the marine environment as well as other marine and coastal users. The principles of ecologically sustainable development promote the responsible use of natural resources and emphasise the need to consider the long-term impacts of human activities on the environment.

Reducing environmental impacts and risks associated with offshore petroleum activities to ALARP is an important aspect of responsible and sustainable business practices in the offshore petroleum industry. This involves identifying potential environmental impacts and risks associated with an activity, implementing measures to minimise those impacts and risks, and continually monitoring and evaluating the effectiveness of those measures.

Ensuring that any remaining environmental impacts and risks are at an acceptable level is also critical to protecting the marine environment and the activities, functions and interests of other marine and coastal users. This involves establishing acceptable environmental standards and thresholds for specific activities and ensuring that the environmental impacts and risks associated with an activity do not exceed those standards and thresholds.

Through the development of the Environment Plan and during consultation, ConocoPhillips Australia will identify and evaluate mitigation and management measures to minimise potential impacts and risks.

Examples of mitigation and management measures that will be implemented are listed below:

- Exclusion zones will be put in place prior to the commencement of seabed survey and drilling activities. These will be communicated via notices to mariners. Vessel and drilling rig operating procedures will establish:
  - A 500 m radius Safe Navigation Area (SNA) will be monitored around the seabed survey vessels to minimise interactions with other vessels.
  - A mandatory 500 m Petroleum Safety Zone (PSZ) around each drilling location while the drilling rig is in position. This prohibits unauthorised vessels from entering or being present within the PSZ.
  - A 2 km cautionary zone will be in place around the drilling drilling rig while on location. To avoid entanglement and safety risks, fishing nets, lines or pots should not be placed within the cautionary zone.
  - Vessel speeds will also be limited within the 2 km cautionary zone, known as the drilling area.
- A Communication Plan will be prepared to ensure that relevant persons are aware and informed of the activity. Specific notifications will be provided to:
  - Australian Maritime Safety Authority (AMSA) Rescue Coordination Centre (RCC)
  - Australian Hydrographic Office (AHO)
  - Other relevant Authorities, and
  - Relevant Persons.
- ConocoPhillips Marine Assurance System ensures that project vessels meet all maritime laws and includes pre-commencement vessel inspections of class certification requirements under the Navigation Act 2012 and Marine Order 27 (Safety of Navigation and Radio Equipment) 2016; and Marine Order 30 (Prevention of Collisions) 2009.
- ConocoPhillips Australia will monitor the implementation and effectiveness of control measures for the duration of the activity and is required to report on environmental performance, including recordable incidents and non-compliances, to the independent regulator the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) at specified intervals during the exploration program. In addition, NOPSEMA typically conducts compliance inspections prior to and during the activity

Questions

and Answers

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will involve seabed surveys and will commence no earlier than January 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

ConocoPhillips Australia continues to interpret available data to prioritise and select final drilling locations with the highest likelihood of success. This process involves a careful balance of science, economics, and risk management to ensure that drilling efforts are safely executed with minimal impact to the environment.

Will it be safe to swim and dive?

All potential drilling locations will be confined to water depths between 35 - 670 m. Although the recognised maximum recreational diving depth of 40 m and an unlikely depth for recreational swimming, the sound generated by the activity has the potential to reach the shallower waters.

In particular, the northern portion of permit VIC/P79 is located within close proximity to the shoreline of Victoria. If drilling occurs near the northern border of the permit area, commercial dive-fisheries and recreational water-based activities may be affected by aversion during some short-term activities.

Will I still be able to fish?

Fishing within the permit area will be allowed, but not within established safe navigation areas, cautionary zones or the petroleum safety zone.

How will we know vessels and facilities are out there?

There will be a 'Notice to Mariners' provided by the Australian Hydrographic Office to inform other marine users of the activity taking place and of the exclusion zones in place, as regulated by the AMSA.

The drilling rig will also be equipped with an Automatic Identification System (AIS) installed to ensure the facility is detected at sea by other vessels or operators. Further, additional lighting as per Commonwealth required guidelines will be installed on the drilling rig and support vessels, which will allow easy identification.

Where can I find information on exclusion zones relevant to me?

PSZ notices will be published in the Gazette on the NOPSEMA website. A description of the activity, location and the time frame of exclusion will also be available at:

https://www.nopsema.gov.au/offshore-industry/directions-notices-alerts/gazetted-notices

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

ConocoPhillips Australia

Marine Mammals

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced the preparation of an Environment Plan that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed surveys which will commence no earlier than January 2024.

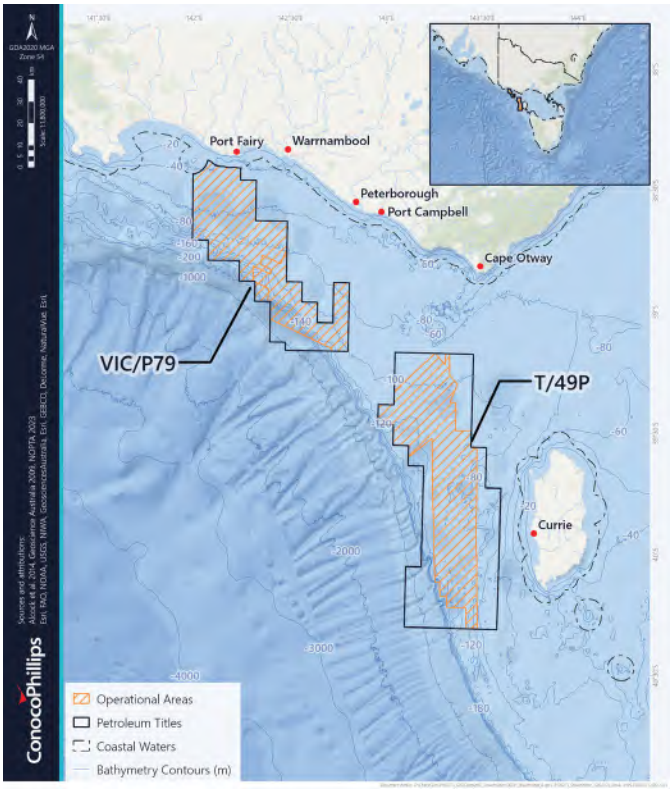
We are committed to ensuring that marine mammals can continue to undertake biologically important behaviours in the offshore environment, with no unacceptable impacts to critical life-cycles stages or population characteristics because of the Otway exploration drilling program.

This information sheet summarises the ongoing assessment of potential impacts and risks to marine mammals arising from exploration activities.

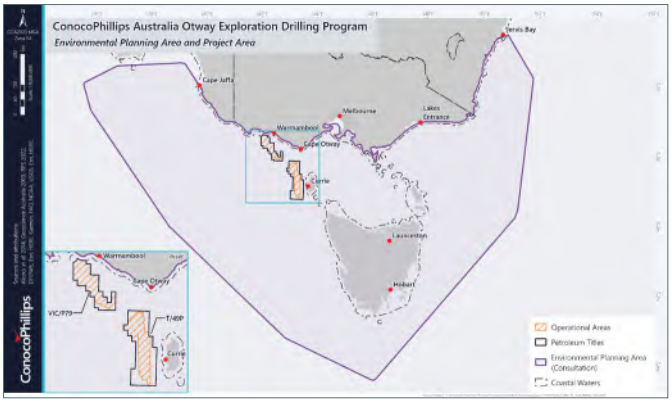
Figure 1 below shows the permit areas, the operational areas within which exploration activities may occur, and the Environmental Planning Area that has been applied to ensure that far ranging environmental values and sensitivities are appropriately identified and considered.

Map of Permit Areas

Figure 1



Environmental Planning Area Map



KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the Otway Basin and is preparing an Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The EP will include an assessment of potential impacts and risks to marine mammals that might arise from the exploration program.
- A preliminary assessment of impacts and risks to marine mammals has identified that:
  - Several species of whales, dolphins and seals are typically found in the Otway Basin, many of which exhibit biologically important behaviours such as foraging.
  - Marine mammals are particularly sensitive to the effects of underwater noise which has the potential to result in hearing impairment, stress, and changes in behaviour at a range of effect distances.
  - Where underwater noise has the potential to affect biologically important behaviours of threatened species, effective control measures will need to be in place.
- The purpose of this information sheet is to provide details of potential impacts and risks that have been identified, as well as the measures proposed to reduce those impacts and risks, to support consultation prior to the submission of the Environment Plan.
- If you would like to ask questions or provide feedback, see the contact details at the end of the information sheet.

Marine Mammals in the Area

Under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) all cetaceans (whales, dolphins and porpoises) are protected in Australian waters. There are several species of whales, dolphins and seals typically found in the Otway Basin, including species that are listed as nationally threatened under the EPBC Act including three endangered species (blue whale, southern right whale and Australian sea lion) and three vulnerable species (sei whale, fin whale and the southern elephant seal). In addition, some species are known to undertake biologically important behaviours, such as foraging, calving and migration, within the Environmental Planning Area, including:

- Southern right whales
- Blue whales
- Humpback whales
- Sperm whales
- Indian Ocean/Indo-Pacific/ spotted bottlenose dolphins, and
- Australian sea lion

Potential Interactions with Marine Mammals

The preliminary environmental impact and risk assessment has identified aspects of exploration activities that have the potential to impact, or pose a risk to, marine mammals as shown below.

Aspect	Potential for impact to marine mammals
Underwater Sound	Moderate consequence to some whale species
Interactions with Marine Fauna	Low risk of vessel collision with marine mammals
Loss of Material or Waste Overboard	Low risk of entanglement from loss of material overboard
Accidental Release of Hydrocarbons	Medium risk rating to marine mammals

Impacts and risks vary for different species. Impacts that have the potential to result in moderate consequences, and risks that have an inherent risk rating of medium, are discussed in more detail below.

Underwater Sound

Marine mammals, particularly cetaceans (i.e., whales and dolphins) rely on hearing as their principal sense for navigation, communication and/or hunting and can be extremely vulnerable to noise created by humans. The effects of underwater sound can include hearing impairment, stress and changes in behaviour from sounds that mask environmental noise. Each species of marine mammal has a different sensitivity to underwater noise and whales and dolphins can be classified into low, high and very high frequency cetaceans based on their hearing (Note: No species of very-high frequency cetaceans are expected to be present within the Environmental Planning Area).

The occurrence and significance of a change in behaviour varies by individual, species and circumstances. Some sounds may not cause any response, while others may result in minor to significant changes in a variety of behaviours, such as diving, surfacing, vocalizing, feeding or mating.

To assess the potential effects of a sound-producing activity, it is necessary to first establish the sound levels that may affect marine mammals. Due to the variety of species considered, sound levels are analysed and evaluated against effects including mortality, injury, temporary reduction in hearing sensitivity and behavioural disturbance.

The temporary loss of sensitivity is called a temporary threshold shift (or TTS). As the sound exposure increases, threshold shift will eventually become permanent, and this effect is called a permanent threshold shift (or PTS). Permanent threshold shift can occur because of repeated occurrences of temporary threshold shift, or because of a single exposure to a very intense sound.

Noise Modelling

ConocoPhillips Australia has commissioned a modelling study of underwater sound levels associated with the Otway exploration drilling program to inform the impact assessment process. The study predicts the distances over which exploration activities have the potential to impact marine mammals, known as the 'effect distance'. The sound from a range of activities is typically assessed, including those with the most significant predicted impacts. The preliminary results from the impact assessment are presented in Table 1.

Table 1: Predicted impacts of underwater noise to marine mammals

Species	Worst-case predicted impacts for currently identified activities
Low frequency cetaceans *(e.g., Humpback whales, Blue whales and Southern right whales)*	• Short-term behavioural changes within 12.6 km from the noise source during resupply whilst drilling and vessel on standby at locations on the continental shelf. This distance is predicted to increase in the offshore direction when activities occur close to the shelf break. • Temporary threshold shift within 3.6 km and permanent threshold shift within 320 m of the noise source for the short duration of mooring activities. • No mortality.
High frequency cetaceans *(e.g., Pygmy sperm whale and Dwarf sperm whale)*	• Short-term behaviour changes within 12.6 km from the noise source for specific activities. • Temporary threshold shift within 160 m and permanent threshold shift within 60 m from the noise sources during resupply whilst drilling and vessel on standby. • No mortality.
Pinnipeds *(e.g. Australian sea lion)*	• Short-term behaviour changes within 12.6 km from the noise source for specific activities. • Temporary threshold shift within 100 m and permanent threshold shift within 60 m from the noise source during drilling with resupply and vessel on standby. • No mortality.

Hydrocarbon Release

Although an accidental hydrocarbon release has been determined to be highly unlikely to occur, the potential impacts are assessed to ensure appropriate mitigation measures and response plans are in place. In the event of an accidental release, hydrocarbons may be found on the surface of the water, at various water depths through the water column and eventually on the shoreline, meaning that a range of marine species may be affected in the highly unlikely event that this occurs. Potential impacts may occur from external as well as internal exposure to hydrocarbons. The severity of impacts would be highly dependent on the hydrocarbon characteristics as well as the species lifestyle characteristics.

An accidental release of hydrocarbons can result in a change in water quality that may result in injury or mortality to marine mammals and changes in behaviour. If an incident occurred, impacts would largely be restricted to the upper water column and are expected to be restricted to individual fauna and unlikely to impede the recovery of a protected species.

As the risk of an accidental release of hydrocarbons cannot be completely eliminated, detailed response plans for credible spills are required to be developed to demonstrate preparedness in the extremely unlikely event a spill occurs. These plans are reviewed with state control agencies and must be accepted by the independent regulator, NOPSEMA. In the highly unlikely event of a spill, the response will include integration with local, national and international response organisations to mobilise resources including experts and specialist equipment.

Reducing impact

The objectives of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations (2009) are to ensure that any petroleum activity is carried out in a manner that is consistent with the principles of ecologically sustainable development as set out in section 3A of the EPBC Act. Additionally, these activities must be carried out in a manner that reduces the environmental impacts and risks associated with them to as low as reasonably practicable (ALARP), while also ensuring that any remaining environmental impacts and risks are at an acceptable level.

These objectives are critical to the protection of the marine environment and marine ecosystems from negative impacts associated with offshore petroleum activities. The principles of ecologically sustainable development promote the responsible use of natural resources and emphasise the need to consider the long-term impacts of human activities on the environment.

Reducing environmental impacts and risks associated with offshore petroleum activities to ALARP is an important aspect of responsible and sustainable business practices in the offshore petroleum industry. This involves identifying potential environmental impacts and risks associated with an activity, implementing measures to minimise those impacts and risks, and continually monitoring and evaluating the effectiveness of those measures.

Ensuring that any remaining environmental impacts and risks are at an acceptable level is also critical to protecting the marine environment and marine ecosystems. This involves establishing acceptable environmental standards and thresholds for specific activities and ensuring that the environmental impacts and risks associated with an activity do not exceed those standards and thresholds.

Through the development of the Environment Plan and during consultation, ConocoPhillips Australia will identify and evaluate mitigation and management measures to minimise potential impacts to protected species, particularly during periods of peak biological importance. However, given the diversity of biologically important activities with differing peak periods, there is no perfect window where exploration activities can occur without the potential for impact in the absence of effective controls.

Examples of mitigation measures that will be implemented are listed below:

- Vessels will comply with EPBC Regulations 2000 – Part 8 Division 8.1 interacting with cetaceans which requires vessels to adhere to an increased caution zone of 500 m between whales and vessels.
- All activities will comply with a Marine Mammal Adaptive Management Procedure outlining specific actions to minimise impacts from anthropogenic noise in accordance with:
  - Conservation Management Plan for the Blue Whale, and
  - Conservation Management Plan for the Southern Right Whale.
- Activity-specific emergency preparedness and response plans and capability will be in place prior to activity commencement.

Questions

and Answers

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will involve seabed surveys and will commence no earlier than January 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

ConocoPhillips Australia continues to interpret available data to prioritise and select final drilling locations with the highest likelihood of success. This process involves a careful balance of science, economics, and risk management to ensure that drilling efforts are safely executed with minimal impact to the environment.

How is ConocoPhillips Australia ensuring the ongoing protection of endangered species?

ConocoPhillips Australia has been conducting marine mammal surveys since 2021 to produce contemporary data that supports effective decision-making in the Otway Basin. This research continues to improve knowledge on the presence/absence, distribution and behaviours of key species during and outside of known peak seasons. Data is made available to government agencies and research organisations and can be made available to other commercial operators in the region through a memorandum of understanding.

ConocoPhillips Australia is an advocate for community-based research programs with the Dolphin Research Institute, who are expanding their Two Bays Whale Program. We also support research, through the Arthur Rylah Institute, in expanding their southern right whale aerial monitoring program along the Victorian coastline.

Will ConocoPhillips Australia restrict activity for seasonally important behaviours?

ConocoPhillips Australia recognises the importance of the offshore Otway Basin and nearby coastlines for a number of species including blue whales who forage through the area in summer, and southern right whales who calve and aggregate along the Victorian coastline in winter.

Our approach is to ensure that activities are scheduled to minimise potential interactions with protected species, particularly during peak biologically important times. However, given the diversity of biologically important activities with differing peak periods, there is no perfect window where exploration activities can occur without the potential for impact in the absence of effective controls.

The Environment Plan must demonstrate that, in all cases, the activity is undertaken in a manner that continually reduces environmental impacts and risks to a level that is as low as reasonably practicable (ALARP) and that any residual impacts or risks are at an acceptable level. This will require the implementation of effective control measures that mitigate impact to whichever species is likely to be present.

Does ConocoPhillips Australia know that the proposed activity is close to and overlaps Biologically Important Areas (BIA's) for whales?

Yes, ConocoPhillips Australia recognises the biological importance of the offshore Otway Basin and nearby coastlines for a number of species including blue whales who forage through the area in summer, and southern right whales who calve and aggregate along the Victorian coastline in winter.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

ConocoPhillips
Australia

Historical Military Ordnance Risks

(Unexploded Ordnance)

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Program

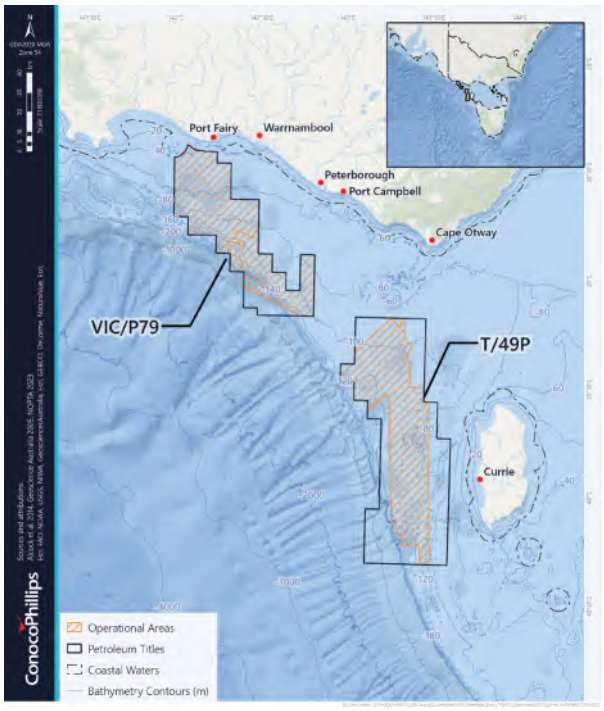
ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed assessments which will commence no earlier than January 2024.

This information sheet summarises the ongoing assessment of the risk of interaction between vessels or equipment associated with the Otway exploration drilling program and any historic defence activities in the operational area. Figure 1 shows the proposed location of the program.

Map of Permit Areas *Figure 1*



KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration program in the Otway Basin and is preparing an Environment Plan which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The EP will include an assessment of impacts and risks associated with historical defence activities in the area, including the potential presence of unexploded ordnance.
- Both permit areas overlap a historic air-to-air firing range which the government has classified as having a Slight Potential for unexploded ordinance (UXO) presence, with most ammunition used in this area being considered low risk.
- There is no overlap between the permit areas and historic offshore UXO sea dumping sites. The closest sea dumping site to either permit area is located 21 km from T/49P.

Unexploded Ordnance Explained

Unexploded ordnance (UXO) is ammunition which has been previously fired but was defective and did not function correctly at the time of use. These objects still have the potential to explode and therefore pose a risk to any person or object that comes into contact with them. UXO presence in offshore areas of Australia is a result of past military training activities that used live ammunition or the disposal (sea dumping) of waste materials into the marine environment.

The Federal Government Department of Defence classify offshore areas based on their potential to contain UXO. Both permit areas within the Otway exploration drilling program overlap with a historic air-to-air firing range which is now classified by the government as having a Slight Potential for UXO presence. Most ammunition used in this area are not highly explosive and considered low risk. Further, there is no overlap between the permit areas and offshore UXO sea dumping sites. The closest sea dumping site to either permit area is located 21 km from T/49P.

Risk Assessment

The risks associated with UXO were assessed to establish a 'UXO Risk Profile' for the permit areas. This risk profile considers the probability of encountering UXO, the probability of UXO detonation, and the consequence of detonation.

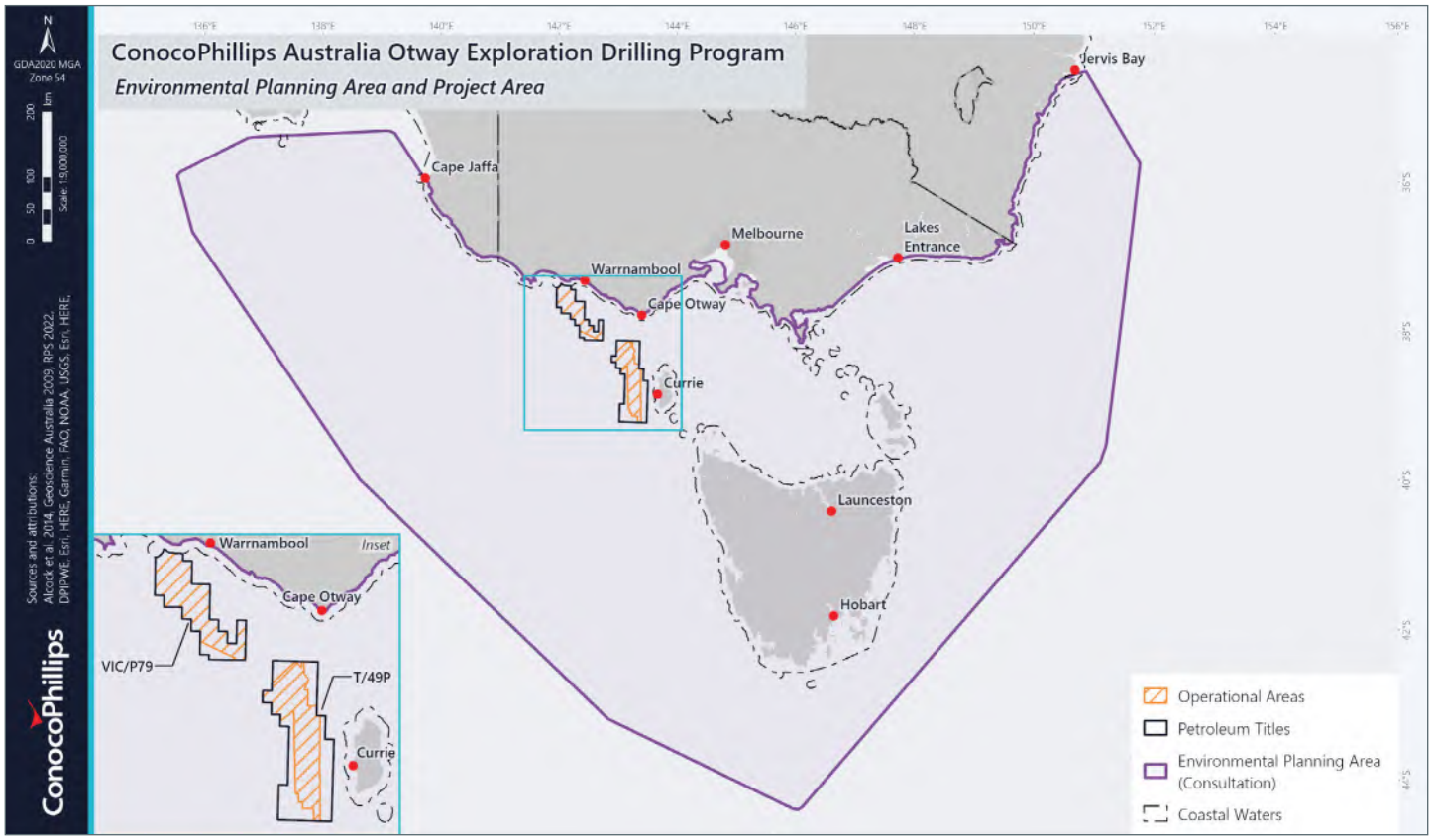
Encountering UXOs within the permit areas is considered low risk for all activities, except for some activities involving subsea equipment. The risk of a UXO being snagged by equipment, for example when collecting seabed samples, and subsequently being brought onto a vessel was assessed as Moderate.

Reducing Impact and Risk

ConocoPhillips Australia is taking action to reduce the risk of encountering UXOs and to minimise any impact in the unlikely event of interaction. Mitigation measures which will be evaluated in the Environment Plan include:

- Conducting seabed surveys using speciality equipment to detect the presence of metals and collect seabed images, to inform activities that interact with the seafloor or sediments.
- Delivering an explosives safety awareness briefing to personnel carrying out seabed survey and exploration drilling activities, and
- Maintaining on-call access to an explosives engineer to provide specialist advice in the unlikely event of UXO encounter.

Environmental Planning Area Map



Questions

and Answers

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will involve seabed surveys and will commence no earlier than January 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

ConocoPhillips Australia continues to interpret available data to prioritise and select final drilling locations with the highest likelihood of success. This process involves a careful balance of science, economics, and risk management to ensure that drilling efforts are safely executed with minimal impact to the environment.

What happens if ConocoPhillips Australia finds a UXO during the seabed surveys?

Prior to commencing work, ConocoPhillips Australia will ensure that an explosives safety and awareness briefing is provided to personnel carrying out seabed survey and exploration drilling activities. The briefings will allow the project team to plan the proposed works and deal with a suspicious item or UXO discovery incident.

In addition, ConocoPhillips Australia will maintain on-call access to explosives engineer who can provide real time assistance to drilling rig and vessel personnel in dealing with a potential UXO encounter.

What happens to marine life if a UXO is detonated?

The Department of Defence has advised that most of the ammunition used in this area are not highly explosive and the risk from this ammunition is negligible.

How does ConocoPhillips Australia work with the Department of Defence to ensure the safety of other marine users?

The Department of Defence has been identified as a relevant authority for the purposes of consultation during Environment Plan development. ConocoPhillips provides information on the type of activity and the locations and requests advice from the Department to inform their risk assessment process. This information has been supported by an additional military and UXO desktop study and risk assessment conducted for ConocoPhillips Australia by RPS Explosives Engineering Services in 2022, which assessed the risk associated with each type of munition that may be present and each pathway to exposure and confirmed a low risk of encountering UXOs within the operational areas.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

ConocoPhillips Australia

Otway Exploration Drilling Program

ConocoPhillips Australia

Project Update

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than January 2024.

This information sheet summarises the next phase of Environment Plan development and consultation, where we will share our evaluations of environmental impacts and risks.

We also have an online mapping tool where individuals, organisations and associations can continue to share feedback about environmental values and sensitivities.

How to Participate in the Regulatory Approvals Process

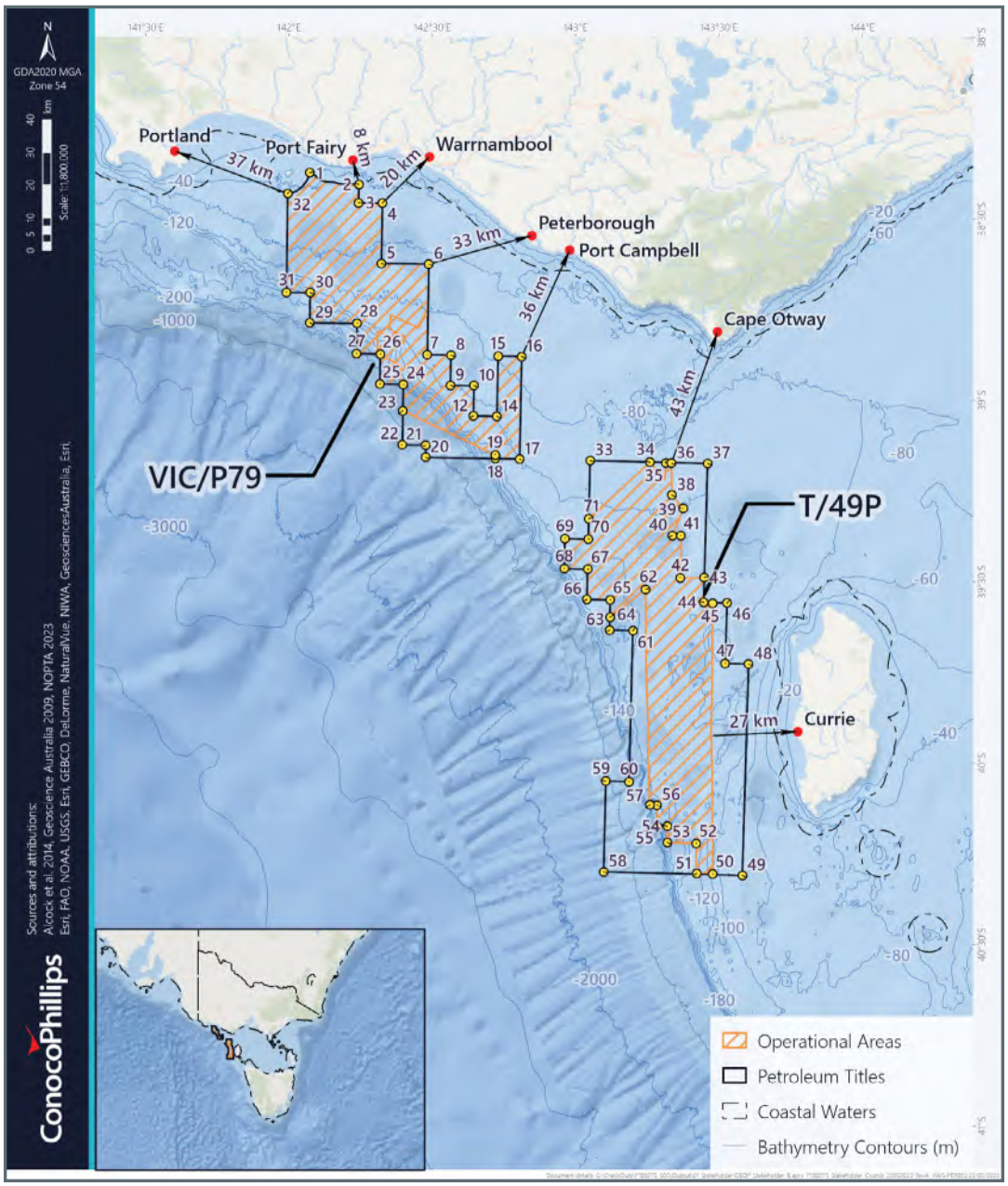
NOPSEMA has recently published a brochure with information for the community about consultation on offshore petroleum environment plans. The brochure has excellent information to help you or your organisation decide if you are a relevant person and can be found here. We strongly encourage those of you uncertain about whether you are a relevant person to consider this information.

If you believe you are a relevant person, we need to understand your activities or interests so that we can provide the right information to you. When engaging with our team we encourage you to be specific about how you might potentially be affected, so that we can properly consider how we might avoid or lessen those impacts or risks.

KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- A range of information sheets providing information on the evaluation of environmental impacts and risks has been developed to support consultation.
- ConocoPhillips Australia is now looking for feedback on these evaluations.
- Individuals, organisations and associations continue to be able to share feedback on locations with values and sensitivities through an online interactive map via the consultation hub.

Map of Permit and Operational Areas



Coordinates

Label	Latitude (DMS)	Longitude (DMS)
1	-38° 25′3.131″	142° 4′39.232″
2	-38° 26′53.079″	142° 15′4.888″
3	-38° 29′54.69″	142° 15′4.894″
4	-38° 29′54.686″	142° 20′4.889″
5	-38° 39′54.694″	142° 20′4.908″
6	-38° 39′54.686″	142° 30′4.896″
7	-38° 54′54.697″	142° 30′4.924″
8	-38° 54′54.693″	142° 35′4.918″
9	-38° 59′54.697″	142° 35′4.927″
10	-38° 59′54.693″	142° 40′4.921″
12	-39° 4′54.696″	142° 40′4.93″
14	-39° 4′54.692″	142° 45′4.924″
15	-38° 54′54.684″	142° 45′4.905″
16	-38° 54′54.679″	142° 50′4.899″
17	-39° 11′54.694″	142° 50′4.933″
18	-39° 11′54.697″	142° 44′55.692″
19	-39° 11′18.194″	142° 44′49.999″

Label	Latitude (DMS)	Longitude (DMS)
20	-39° 11′54.708″	142° 30′4.951″
21	-39° 9′54.707″	142° 30′4.949″
22	-39° 9′54.71″	142° 25′4.953″
23	-39° 4′14.315″	142° 25′4.946″
24	-38° 59′54.705″	142° 25′4.938″
25	-38° 59′54.709″	142° 20′4.943″
26	-38° 54′54.706″	142° 20′4.935″
27	-38° 54′54.711″	142° 15′4.94″
28	-38° 49′54.706″	142° 15′4.932″
29	-38° 49′54.714″	142° 5′4.941″
30	-38° 44′54.71″	142° 5′4.932″
31	-38° 44′54.713″	142° 0′4.935″
32	-38° 28′31.755″	142° 0′4.902″
33	-39° 11′54.684″	143° 5′4.92″
34	-39° 11′56.572″	143° 17′52.217″
35	-39° 12′0.644″	143° 21′13.397″
36	-39° 12′1.03″	143° 22′24.381″

Label	Latitude (DMS)	Longitude (DMS)
37	-39° 11′54.664″	143° 30′4.89″
38	-39° 17′17.3″	143° 22′41.264″
39	-39° 19′27.132″	143° 25′13.929″
40	-39° 24′0.371″	143° 23′0.444″
41	-39° 23′55.841″	143° 24′47.592″
42	-39° 30′55.847″	143° 24′57.913″
43	-39° 30′47.539″	143° 30′1.633″
44	-39° 34′54.676″	143° 30′4.921″
45	-39° 35′2.601″	143° 31′58.008″
46	-39° 34′54.673″	143° 35′4.905″
47	-39° 44′54.677″	143° 35′4.906″
48	-39° 44′54.675″	143° 40′4.882″
49	-40° 19′54.686″	143° 40′4.966″
50	-40° 19′47.484″	143° 33′41.868″
51	-40° 19′48.944″	143° 30′10.185″
52	-40° 14′49.127″	143° 29′56.024″
53	-40° 14′47.42″	143° 23′40.631″

Label	Latitude (DMS)	Longitude (DMS)
54	-40° 12′5.982″	143° 23′34.74″
55	-40° 12′7.05″	143° 21′24.852″
56	-40° 8′39.816″	143° 21′12.975″
57	-40° 8′39.34″	143° 19′41.017″
58	-40° 19′54.707″	143° 10′4.993″
59	-40° 4′54.701″	143° 10′4.976″
60	-40° 4′54.697″	143° 15′4.971″
61	-39° 39′54.688″	143° 15′4.942″
62	-39° 33′0.546″	143° 17′31.908″
63	-39° 39′54.691″	143° 10′4.947″
64	-39° 37′47.264″	143° 10′8.348″
65	-39° 34′54.689″	143° 10′4.941″
66	-39° 34′54.692″	143° 5′4.946″
67	-39° 29′54.69″	143° 5′4.94″
68	-39° 29′54.694″	143° 0′4.945″
69	-39° 24′54.692″	143° 0′4.939″
70	-39° 24′54.689″	143° 5′4.934″
71	-39° 21′31.898″	143° 5′7.348″

Activity Overview

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as outlined below.

Parameter	Seabed Survey	Drilling
The broadest timeframe and spatial extent of the activity		
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells).
Spatial extent (within which activity can occur)	Operational Areas within T/49P and VIC/P79	Operational Areas within T/49P and VIC/P79
Narrowing the timing and location of the activities to the current best estimates		
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km^2 (Nine locations, each 6 x 6 km) within Operational Areas	75 km^2 (Six locations, each a 2 km radius Drilling Area) within Operational Areas

Identifying Environmental Values and Sensitivities

To support our understanding of the marine environment of the offshore Otway Basin, ConocoPhillips Australia is inviting individuals, organisations and associations to provide additional context and feedback on our proposed activity through an online collaborative mapping process.

Individuals, organisations and associations are encouraged to visit the consultation hub and use the interactive map to identify (pin) locations of interest or concern and provide additional information or comment on existing pins.

Environmental values and sensitivities can be physical, ecological, socio-economic and/or cultural.

Commercial Fishing

The Otway Exploration Drilling Program is located within existing designated Commonwealth and State fisheries. Exploration drilling activities will occur in only very small areas within the fisheries area.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

A preliminary assessment of potential impacts and risks to the commercial fishing industry has identified that:

- Commercial fishers may be temporarily displaced from parts of the fisheries during exploration activities. Any displacement, i.e. through exclusion zones, would be communicated in a timely manner.
- Impacts to fish and marine invertebrates from planned activities are predicted to be short term, limited within 10s to 100s of metres and will not affect the long-term sustainability of fisheries.
- Potential risks from unplanned events have been identified and mitigation and management measures are being developed.

The full Commercial Fishing information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Marine Mammals

The EP will include an assessment of potential impacts and risks to marine mammals that might arise from the exploration program.

A preliminary assessment of impacts and risks to marine mammals has identified that:

- Several species of whales, dolphins and seals are typically found in the Otway Basin, many of which exhibit biologically important behaviours such as foraging.
- Marine mammals are particularly sensitive to the effects of underwater noise which has the potential to result in hearing impairment, stress and changes in behaviour at a range of effect distances.
- Where underwater noise has the potential to affect biologically important behaviours of threatened species, effective control measures will need to be in place.

Under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) all cetaceans (whales, dolphins and porpoises) are protected in Australian waters. There are several species of whales, dolphins and seals typically found in the Otway Basin, including species that are listed as nationally threatened under the EPBC Act including three endangered species (blue whale, southern right whale and Australian sea lion) and three vulnerable species (sei whale, fin whale and the southern elephant seal).

In addition, some species are known to undertake biologically important behaviours, such as foraging, calving and migration, within the Environmental Planning Area, including:

- Southern right whales
- Blue whales
- Humpback whales
- Sperm whales
- Indian Ocean/Indo-Pacific/spotted bottlenose dolphins, and
- Australian sea lion

The full Marine Mammals information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Seabirds, Penguins and Marine Turtles

The EP will include an assessment of potential impacts and risks to seabirds, penguins and marine turtles that might arise from the exploration program.

A preliminary assessment of impacts and risks to seabirds, penguins and marine turtles has identified that:

- Seabirds, penguins and marine turtles are known to be sensitive to the effects of artificial light, particularly during critical behaviours such as breeding and foraging for seabirds and penguins, and nesting and hatching for marine turtles.
- Marine turtles are known to be sensitive to the effects of underwater noise. However, there are no biologically important behaviours or critical habitat essential to marine turtles identified in the area and their presence is expected to be of a transient nature.
- A number of seabird species utilise the offshore Otway Basin for biologically important behaviours such as foraging, breeding and migration. Where underwater noise and artificial light have the potential to affect biologically important behaviours of threatened seabird species, effective control measures will need to be in place.

There are several species of seabirds that are known to be present in the Otway Basin. Some of these species such as albatross and petrels, and penguins, are listed as Matters of National Environmental Significance and are protected under the EPBC Act. Many seabird species utilise the area for biologically important behaviours such as foraging, breeding and migration.

The following species are known to occur within the Environmental Planning Area and exhibit one or more of these important behaviours:

- Caspian tern
- Flesh-footed shearwater
- Little penguin
- Shy albatross
- Wedge-tailed shearwater
- White-fronted tern
- Common-diving petrel
- Great-winged petrel
- Pacific gull
- Soft-plumage petrel
- White-capped albatross
- Black-faced cormorant
- Greater crested tern
- Short-tailed shearwater
- Sooty shearwater
- White-faced storm petrel

Marine turtles are highly migratory and rely on both marine and terrestrial habitats. Although they may occur within the Environmental Planning Area, no habitat critical to their survival occurs in the waters off southern Australia and they are not known to exhibit any identified biologically important behaviours in this area. The closest biologically important areas for marine turtles are located south of Brisbane, QLD, and at Shark Bay, WA. Even though the presence of individuals within the area is expected to be of a transient nature, the potential impacts of the Otway Exploration Drilling Program on marine turtles has been assessed, as they are listed as Matters of National Environmental Significance and are protected under the EPBC Act.

The full Seabirds, Penguins and Marine Turtles information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Other Marine and Coastal Users

The Environment Plan will include an assessment of potential impacts and risks to other marine and coastal users that may arise from the exploration drilling program. This assessment has currently identified a number of marine and coastal users and values including recreation and tourism, commercial shipping, petroleum activities, renewable energy, defence activities, commercial fishing and cultural heritage.

The Otway Exploration Drilling Program may affect the activities of other marine and coastal users. For example, the physical presence of seabed survey vessels, the drilling rig and support vessels used for the activity, and the establishment of exclusion zones, may result in the displacement of other marine users engaging in activities such as commercial fishing.

Other short-term petroleum activities, for example, Vertical Seismic Profiling (VSP), have the potential to cause additional displacement if conducted in close proximity to coastal areas, with sound emissions from VSP limited to a maximum of 20 hours per well.

Exclusion zones will be established to support safe operations. These zones allow for anchors, mooring chains and wire to be placed within the operational areas during the drilling program and prevent interactions or collisions with equipment or between vessels.

All potential drilling locations will be confined to water depths between 35 - 670 m. Recreational diving is likely to be restricted to coastal waters in depths <18 m but with more advanced diving possible to 40 m. Water depths within the operational areas are mostly beyond the recognised maximum recreational diving depth of 40 m, which is also an unlikely depth for recreational swimming. The sound generated by the activity has the potential to reach shallower waters if the drilling activity is in the northern portion of permit VIC/P79.

The full Other Marine and Coastal Users information sheet, including examples of mitigation measures is available in the document library of the consultation hub.

Emissions and Discharges

The EP will include a detailed assessment of potential impacts and risks arising from the air emissions and planned discharges associated with the Otway Exploration Drilling Program. Activities conducted as part of the Otway Exploration Drilling Program will result in emissions to the atmosphere, as well as discharges to the marine environment.

A preliminary assessment of potential impacts associated with emissions and discharges has identified:

- Air emissions from seabed survey vessels, the drilling rig and support vessels have the potential to result in localised changes in air quality.
- Planned discharges from survey vessels, the drilling rig and support vessels have the potential to result in localised changes to water quality that will quickly dissipate in the water column.
- Discharges from drilling operations, including drilling fluids and rock cuttings, cement, and small volumes of hydraulic fluid from testing subsea equipment, have the potential to result in localised changes to water and sediment quality.

Historical Military Ordnance Risk (Unexploded Ordnance)

The EP will include an assessment of impacts and risks associated with historical defence activities in the area, including the potential presence of unexploded ordnance.

Both permit areas overlap a historic air-to-air firing range which the government has classified as having a Slight Potential for unexploded ordinance (UXO) presence, with most ammunition used in this area being considered low risk.

There is no overlap between the permit areas and historic offshore UXO sea dumping sites. The closest sea dumping site to either permit area is located 21 km from T/49P.

The full Historical Military Ordnance Risk information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Contact us

ConocoPhillips Australia values consultation and feedback and invites consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.

You are invited to provide feedback, request a meeting and ask questions on the proposed activity by contacting us in one of the following ways:

E: otway@conocophillips.com
T: 07 3182 7122
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ConocoPhillips Australia

Otway Exploration Drilling Program

ConocoPhillips Australia

Project Update

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

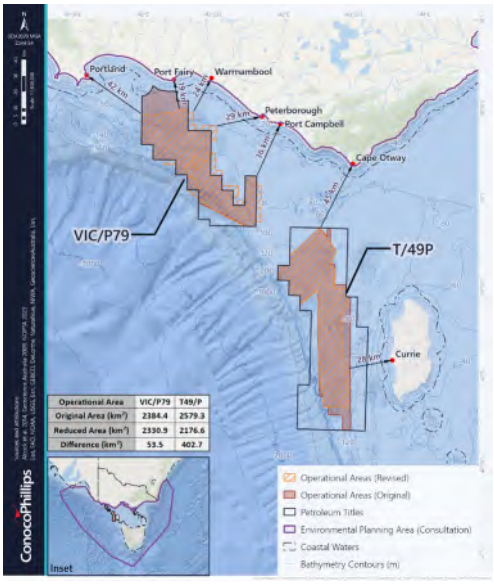
About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than April 2024.

This information sheet summarises the next phase of Environment Plan development and consultation.

Revised Permit and Operational Areas Map



KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- ConocoPhillips Australia has secured a harsh environment semi-submersible rig as part of a rig consortium. Drilling remains dependent on the EP being accepted by NOPSEMA.
- ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment.
- ConocoPhillips Australia is asking relevant persons to provide feedback, including objections or claims, about the potential impacts of the activity.
- Based on the (now identified) operational constraints of the drilling rig and ConocoPhillips Australia's ongoing assessment of seismic data, the operational areas of the proposed activity have been refined, resulting in an overall reduction in total area. As a result of this refinement, some operational areas now extend outside of the petroleum titles. Additional information on these changes, and a revised map with coordinates, are provided within this information sheet.

Activity Overview

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as outlined below.

Changes made to the proposed activity

Operational Area: Based on operational constraints of the drilling rig and ConocoPhillips Australia's ongoing assessment of seismic data, the operational areas of the proposed activity have been refined, resulting in an overall reduction of total area. As a result of this refinement, some operational areas now extend past title permit boundaries.

Operational Area	Original Area (km2)	Reduced Area (km2)	Overall reduction (km2)
VIC/P79	2384.4	2330.9	53.5
T/49P	2579.3	2176.6	402.7

Operational Areas represent the area within which petroleum activities can occur. Operational areas are located predominantly within the relevant petroleum titles (T/49P and VIC/P79) and have been selected based on similar constraints around rig operations and well design. Where operational areas extend outside of a petroleum title, ConocoPhillips Australia will apply for and secure an Access Authority (AA) from NOPTA, prior to the commencement of activities in these areas. Activities in these areas will be 'other than drilling a well' and may include the placement of anchors, the collection of geophysical and geotechnical data, and the operation of vessels.

Design Envelope: The initial timing provided for the commencement of seabed surveys was 'no earlier than 1 January 2024'. This has now been extended to 'no earlier than 1 April 2024'. The term of the approval for these activities remains unchanged – at 31 December 2028, to allow for the drilling of a maximum of six exploration wells.

Parameter	Seabed Survey	Drilling
Earliest Start Date	1 April 2024	1 October 2024
Latest Start Date	31 December 2028	31 December 2028
Maximum Number of Locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells)
Spatial Extent (within which activity can occur)	Operational Areas associated with T/49P and VIC/P79	Operational Areas associated with T/49P and VIC/P79

Consultation Extended

Based on relevant person feedback, ConocoPhillips Australia has extended consultation on the proposed activity until **30 September 2023**. This ensures all relevant persons have a reasonable period of time to consider the information we have provided during the course of consultation and provide feedback to us on the potential impacts of the activity on their functions, interests and activities.

Consultation with relevant persons is an important part of developing and reviewing Environment Plans. Relevant persons are defined in the regulations as *a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the environment plan.* Please note, all consultation records will be provided to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and published with the Environment Plan, unless you advise us that you don't want that information published.

Provide feedback on draft Environment Plan chapters

As part of ongoing consultation, ConocoPhillips Australia is releasing draft EP chapters for review. We are asking relevant persons to raise concerns, including objections or claims, about the potential impacts of the activity. We are also seeking information about how relevant persons may be affected and feedback about how we intend to manage the activity to ensure the associated impacts are as low as reasonably practicable and are acceptable.

By providing the draft EP chapters, we aim to ensure that all relevant persons are provided with sufficient information so they can make an informed assessment of the potential impacts of the proposed Otway Exploration Drilling Program on their functions, interests and activities.

Relevant persons can view the draft EP chapters and information on how to provide feedback via the consultation hub by scanning the QR code or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment.

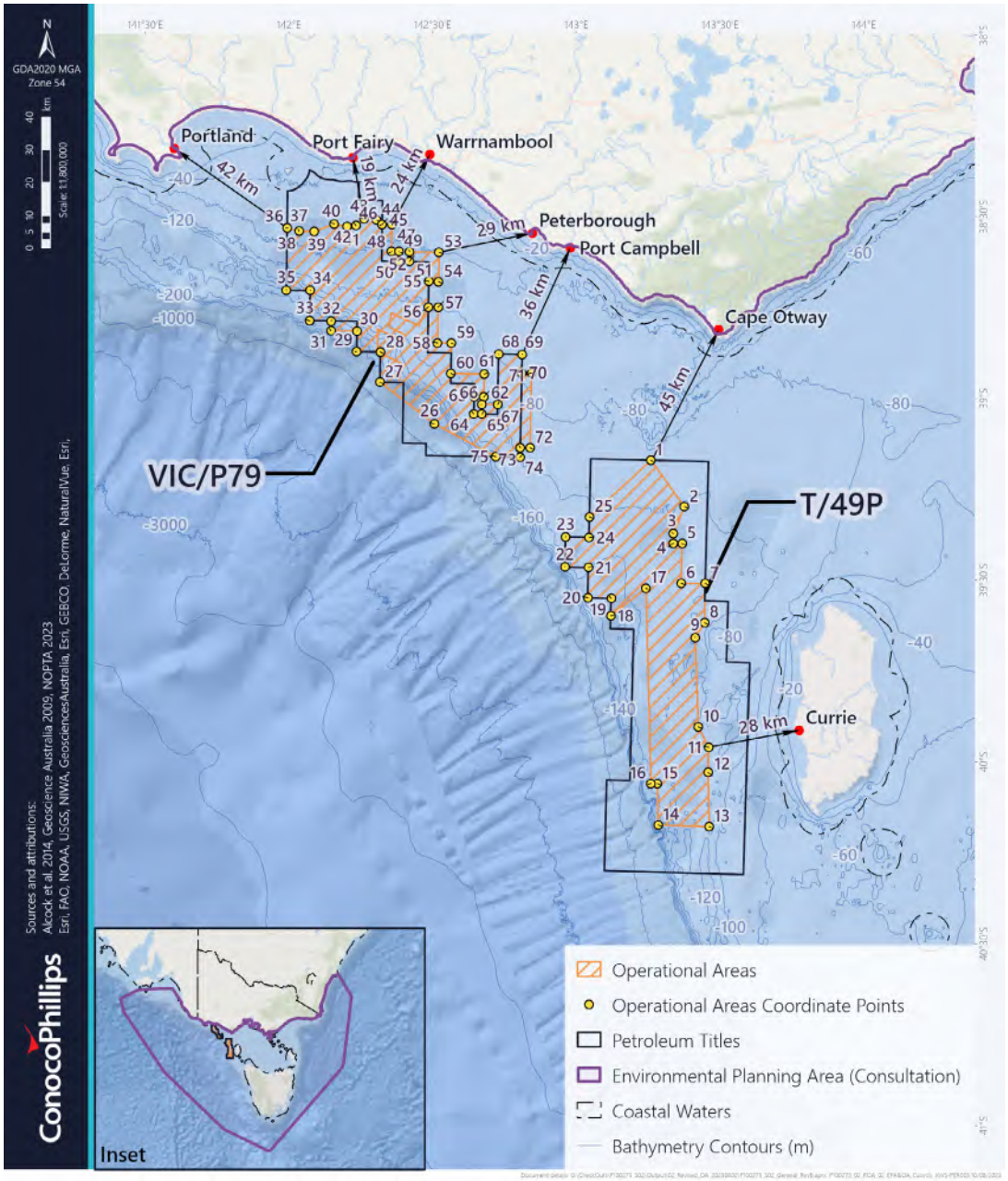
How to provide feedback on the draft Environment Plan chapters

There are three ways to provide feedback on the draft EP chapters:

- Fill out the feedback form. This form is ideal for short-form feedback, objections or claims and is located on the consultation hub.
- Send detailed feedback, including your assessment of the possible consequences of the proposed activity on your functions, interests or activities and any objections or claims to otway@conocophillips.com or PO BOX 1243, MILTON, QLD, 4064.
- Request specific information and/or an opportunity to discuss the proposed activity and provided information with a member of the ConocoPhillips Australia's Otway Exploration Drilling Program team by emailing otway@conocophillips.com or calling 07 3182 7122.

Please note, PDF versions of EP chapters can be made available for relevant persons on request. In addition, excerpts or a summary of EP information, e.g. specific to particular aspects or receptors, can also be provided on request.

Revised Operational Area and Permit Area Map with Coordinates



Label	Latitude (DDM)	Longitude (DDM)
1	39° 11.942868'S	143° 17.870276'E
2	39° 19.452207'S	143° 25.232151'E
3	39° 23.954094'S	143° 23.005317'E
4	39° 25.544333'S	143° 23.047592'E
5	39° 25.556888'S	143° 24.940287'E
6	39° 32.112696'S	143° 24.957322'E
7	39° 32.036884'S	143° 30.080953'E
8	39° 38.511455'S	143° 30.208905'E
9	39° 41.015225'S	143° 28.273631'E
10	39° 55.766188'S	143° 29.500828'E
11	39° 59.047894'S	143° 31.79181'E
12	40° 3.225151'S	143° 31.850275'E
13	40° 12.177574'S	143° 32.425803'E
14	40° 12.117504'S	143° 21.414201'E
15	40° 5.332475'S	143° 21.02598'E
16	40° 5.317236'S	143° 19.642539'E
17	39° 33.065567'S	143° 17.494065'E
18	39° 37.787731'S	143° 10.139134'E
19	39° 34.888459'S	143° 10.129765'E

Label	Latitude (DDM)	Longitude (DDM)
20	39° 34.864304' S	143° 5.132129' E
21	39° 29.887356' S	143° 5.131516' E
22	39° 29.891242' S	143° 0.130618' E
23	39° 24.948193' S	143° 0.124462' E
24	39° 24.947305' S	143° 5.119722' E
25	39° 21.531633' S	143° 5.122467' E
26	39° 6.625669' S	142° 31.731013' E
27	38° 59.911817' S	142° 20.082382' E
28	38° 54.910972' S	142° 20.082627' E
29	38° 54.911842' S	142° 15.082341' E
30	38° 51.532672' S	142° 15.099903' E
31	38° 51.532931' S	142° 9.630396' E
32	38° 49.913611' S	142° 9.635697' E
33	38° 49.911898' S	142° 5.082357' E
34	38° 44.911033' S	142° 5.082576' E
35	38° 44.911085' S	142° 0.082634' E
36	38° 34.634708' S	142° 0.082378' E
37	38° 34.63893' S	142° 0.111735' E
38	38° 35.133234' S	142° 2.604834' E

Label	Latitude (DDM)	Longitude (DDM)
39	38° 35.160424' S	142° 5.821354' E
40	38° 33.879794' S	142° 10.004567' E
41	38° 34.296033' S	142° 12.722788' E
42	38° 34.080533' S	142° 14.557198' E
43	38° 32.964096' S	142° 16.237201' E
44	38° 33.122503' S	142° 18.888924' E
45	38° 33.855446' S	142° 20.081528' E
46	38° 33.855721' S	142° 20.081974' E
47	38° 33.85662' S	142° 22.147729' E
48	38° 38.288879' S	142° 22.150006' E
49	38° 38.288847' S	142° 23.674805' E
50	38° 39.910702' S	142° 23.686989' E
51	38° 39.910698' S	142° 25.946003' E
52	38° 38.288867' S	142° 25.945276' E
53	38° 38.288453' S	142° 32.149722' E
54	38° 43.151128' S	142° 32.152191' E
55	38° 43.150951' S	142° 30.082072' E
56	38° 47.376154' S	142° 30.082194' E
57	38° 47.373979' S	142° 32.154344' E

Label	Latitude (DDM)	Longitude (DDM)
58	38° 53.289081' S	142° 32.157397' E
59	38° 53.289058' S	142° 35.080919' E
60	38° 58.304081' S	142° 35.082044' E
61	38° 58.288721' S	142° 42.159693' E
62	39° 2.062281' S	142° 42.161638' E
63	39° 2.067572' S	142° 40.082457' E
64	39° 4.910809' S	142° 40.08254' E
65	39° 4.910789' S	142° 41.783615' E
66	39° 3.291066' S	142° 41.776556' E
67	39° 3.281544' S	142° 45.082389' E
68	38° 54.910601' S	142° 45.082123' E
69	38° 54.91052' S	142° 50.082021' E
70	38° 57.979071' S	142° 50.0821' E
71	38° 57.970856' S	142° 52.159172' E
72	39° 10.314739' S	142° 52.16565' E
73	39° 10.3231' S	142° 50.082536' E
74	39° 11.910767' S	142° 50.082591' E
75	39° 11.911623' S	142° 44.928205' E

Questions

and Answers

Why does the new operational area in VIC/P79 now extend beyond the boundary of the permit?

Based on the (now identified) operational constraints of the drilling rig and ConocoPhillips Australia's ongoing assessment of seismic data, the operational areas of the proposed activity have been refined, resulting in an overall reduction in total area. As a result of this refinement, some operational areas now extend outside of the petroleum titles. Additional information on these changes, and a revised map with coordinates, are provided within this information sheet.

Operational Areas represent the area within which petroleum activities can occur. Operational areas are located predominantly within the relevant petroleum titles (T/49P and VIC/P79) and have been selected based on similar constraints around rig operations and well design. Where operational areas extend outside of a petroleum title, ConocoPhillips Australia will apply for and secure an Access Authority (AA) from NOPTA, prior to the commencement of activities in these areas. Activities in these areas will be 'other than drilling a well' and may include the placement of anchors, the collection of geophysical and geotechnical data, and the operation of vessels.

If I don't want to be consulted as a relevant person, can I still provide feedback on the draft EP chapters?

Yes, the best way for individuals not undertaking consultation through the relevant person consultation process is to complete the online feedback form on the consultation hub.

Why have you signed a contract for a drilling rig when you don't have an approved EP?

It is important to know that no activity can occur prior to the acceptance of the EP by NOPSEMA. ConocoPhillips Australia has secured a harsh environment semi-submersible rig as part of a rig consortium. Securing the services of a drilling rig and mobilising it to the Otway Basin is a considerable logistical and commercial undertaking. To ensure availability of a drilling rig, this process is often undertaken at the same time as EP development and relevant person consultation.

What is a semi-submersible drilling rig?

A semi-submersible drilling rig is a rig that can float like a ship while moving under its own power, or when being towed into position, but is then partially submerged using ballast water to enhance stability on location prior to drilling. Once drilling is completed, the rig is refloated before moving on to the next location.

Why do you keep asking people to add to your online map?

The Environmental Planning Area covers the broader area within which environmental values and sensitivities and functions, interests and activities are identified for consideration in the Environment Plan. It encompasses a wide range of habitats and marine species including fish, crustaceans, birds, marine turtles, marine mammals and kelp forests. The marine environment also supports a range of functions, interests and activities such as cultural values and socio-economic activities like commercial fishing, shipping, gas production, tourism and recreational activities.

The Environmental Planning Area also encompasses the modelled area that could be impacted at low thresholds in the extremely unlikely event there was a loss of well control or marine diesel oil release. The Environmental Planning Area in no way represents the actual extent of any single spill, but rather, it establishes the area within which ConocoPhillips Australia needs to be prepared and able to respond to an incident. ConocoPhillips Australia is also required to submit an Oil Pollution Emergency Plan (OPEP) to NOPSEMA with the EP for assessment.

The interactive map of the Environmental Planning Area is available via our online consultation hub.

Questions

and Answers *continued*

Have you finished processing the seismic data for T/49P yet?

Yes, the processing of the seismic data acquired over T/49P as part of the Sequoia 3D marine seismic survey acquired in 2021 has been completed. ConocoPhillips Australia has commenced assessing and interpreting the seismic data as part of identifying potential prospects for the Otway Exploration Drilling Campaign.

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed surveys which will commence no earlier than April 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

The process for selecting drilling locations involves several steps, including the acquisition and processing of seismic data, interpretation of the data to select high probability of success targets, and efficiency of the program to prove up resources with the least amount of wells. A summary of current activities to support this effort are described below:

1. Interpretation of seismic data: Skilled geoscientists analyse the processed data to identify potential drilling locations. They look for features such as faults, folds and stratigraphic traps that could indicate the presence of hydrocarbons.
2. Selection of high probability targets: After identifying potential drilling locations, geoscientists prioritise them based on their likelihood of success. They consider factors such as the quality and quantity of the reservoir, the geologic complexity of the area and the cost of drilling.
3. Efficiency of the program: The goal is to prove up resources with the least number of wells, which involves optimising the drilling program whilst maximising the chance of success.

Overall, the process for selecting drilling locations is a complex and multidisciplinary effort that requires skilled professionals and advanced technology. It involves a careful balance of science, economics and risk management to ensure that drilling efforts are successful and efficient.

Have we missed anyone?

If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

E: otway@conocophillips.com
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ConocoPhillips Australia

Unplanned Hydrocarbon Release

ConocoPhillips Australia is planning to undertake exploration activities in operational areas associated with offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in operational areas associated with exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than April 2024.

This information sheet summarises the assessed risk and response planning required for an unplanned hydrocarbon release as part of the proposed activity.

Activity Overview

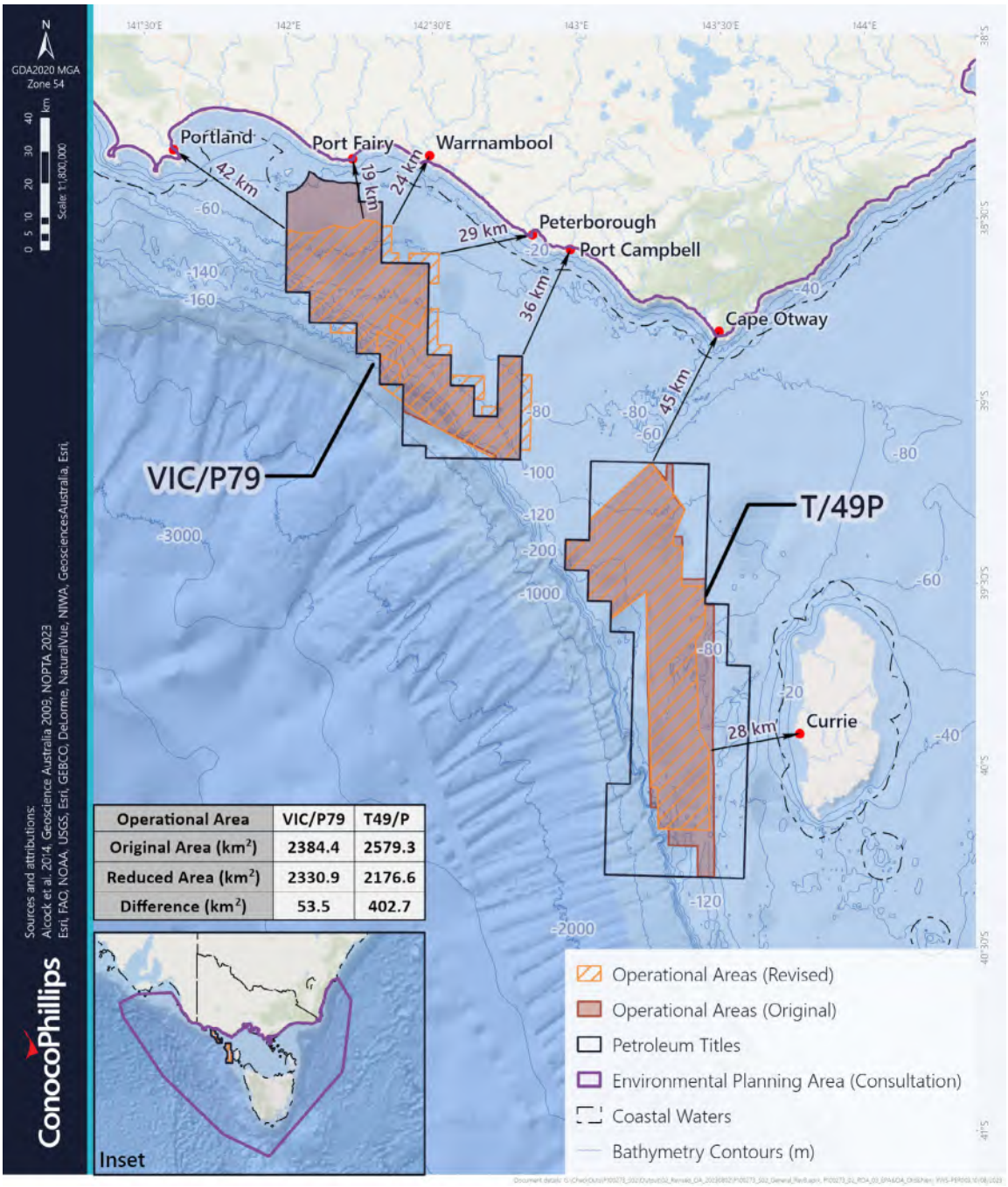
ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in operational areas associated with exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as outlined below.

KEY INFORMATION

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.
- The Environment Plan includes an assessment of the risks associated with the extremely unlikely event of an unplanned hydrocarbon release from vessel operations and drilling operations.
- As the risk of an unplanned hydrocarbon release cannot be completely eliminated, detailed response plans for credible events must be developed to demonstrate to NOPSEMA, ConocoPhillips Australia is prepared to respond in the extremely unlikely event an unplanned release occurs.
- The primary response plan, the oil pollution emergency plan (OPEP), is submitted to NOPSEMA, along with relevant state control agencies, and is assessed as part of the EP assessment process.

Revised Permit and Operational Areas Map



Spill Modelling Explained

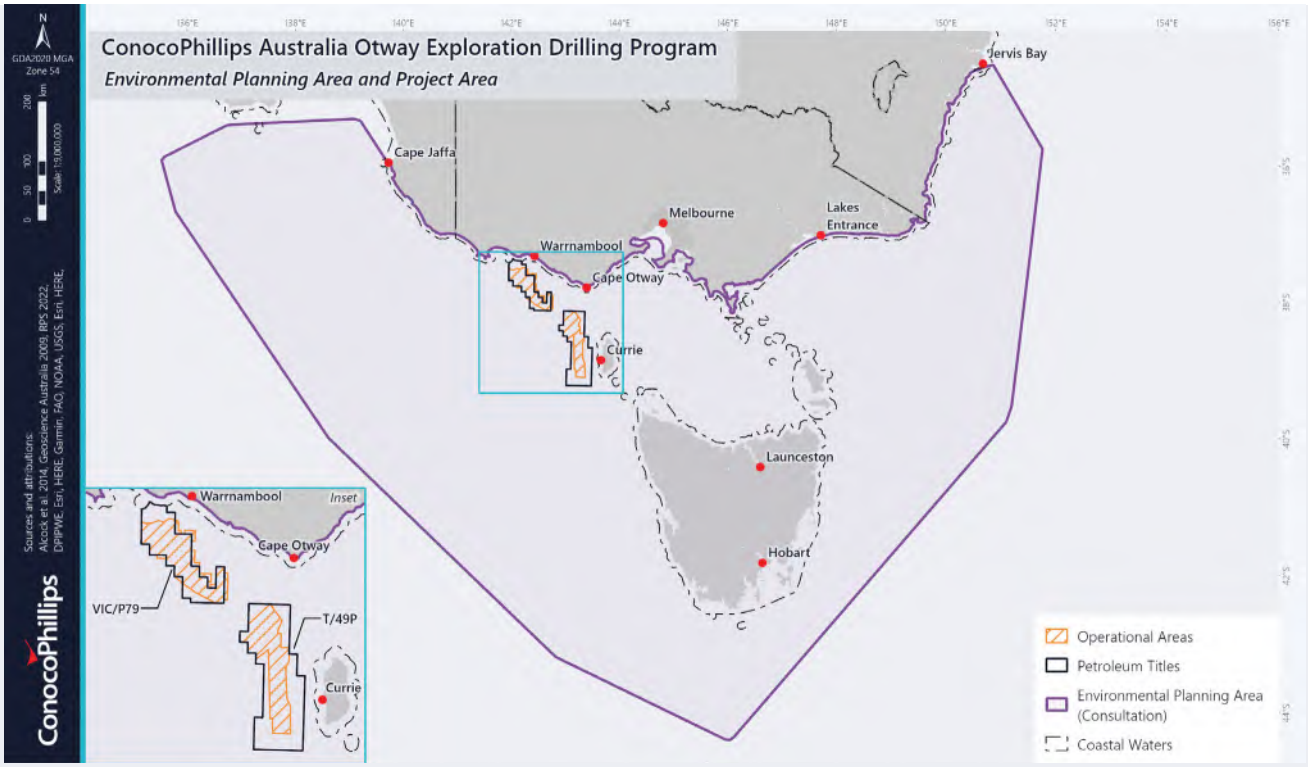
All offshore operations carry an inherent risk of an unplanned hydrocarbon release. Based on a review of national and international publications, the possibility has been assessed as remote. As such, an event is extremely unlikely to occur.

Although extremely unlikely to occur, spill modelling is required to support the risk assessment and the development of response plans. Modelled simulations provide an informed estimate of where the hydrocarbon might go if no response is undertaken, and allows the prediction of possible effects.

There are two types of modelling used when informing the development of an Environment Plan and Oil Pollution Emergency Plan - stochastic modelling and deterministic modelling.

Scan this QR code to view NOPSEMA's video explanation of Oil Spill modelling

Environmental Planning Area



What the planning area represents:
The full range of locations that could be affected depending on the metocean conditions and the area, for which ConocoPhillips Australia needs to be prepared to respond to an incident.

What the planning area does not represent:
The actual spatial extent or area of impact for any single release[1]

Understanding where hydrocarbons might go under different conditions (Stochastic Modelling)

Stochastic modelling is conducted whereby hundreds of hypothetical individual spill scenarios are simulated to show where oil from a spill could go under different metocean conditions (such as currents, wind, waves and temperature) which are always changing.

Stochastic modelling is used in the risk assessment to support the prediction of possible effects, and supports preparedness by identifying a planning area, within which environmental values and sensitivities are identified and priorities for protection are established. In order to assess the possible effects, each type of hydrocarbon is assessed over low, moderate and high thresholds which have increasing impacts to the receiving environment.

By overlaying hundreds of hydrocarbon spills into a single map, stochastic modelling shows the full range of locations that could be affected depending on the metocean conditions. It is important to note that the stochastic model does not in any way represent the extent of any single spill event.

Defining credible spill scenarios (Deterministic Modelling)

Analysis of all the simulations developed during stochastic modelling is conducted to identify hypothetical deterministic simulations that predict possible worst-case outcomes, based on a single set of metocean conditions.

Deterministic modelling is used for preparedness and response planning to establish the type and amount of resources (e.g. equipment) needed to be available for immediate deployment. It is also used during oil spill response operations in the event of an actual spill. Deterministic modelling more closely represents what could occur during an unplanned hydrocarbon release, i.e. what a single hydrocarbon spill would look like and the area it may affect[1], but is specific to the weather and ocean conditions used in the model that resulted in the worst-case outcomes.

Scenario Assessment

Activities conducted during the Otway exploration drilling program that have the potential to result in an unplanned hydrocarbon release are described below.

Vessel Collision

The Otway exploration drilling program will rely on the assistance of a variety of vessels to conduct and support the activities. Larger sized vessels typically use marine diesel oil (MDO) which has the potential to be released to the marine environment as a result of a vessel-to-vessel collision or a vessel to drilling rig collision.

In the case of a vessel collision, the worst-case scenario has been modelled as a 350m^3 release of marine diesel oil over a six-hour period[2]. Modelling was conducted at seven different locations across the two permit areas to represent the entire span of possible operations.

Marine diesel oil is a medium-grade oil (classified as a Group II – light persistent oil) used in the maritime industry. It has a low density and a low dynamic viscosity, meaning that this oil will spread quickly if spilled at sea and thin out to low thicknesses, increasing its rate of evaporation.

Based on the fate and weathering modelling, approximately 40 percent of the released MDO would be lost to atmosphere through evaporation over the first day and an additional 55 percent would evaporate over several days. Approximately 5 percent would not evaporate but would decay slowly over time.

Loss of Well Control

Exploration drilling involves drilling through the seabed in order to access the hydrocarbon reservoirs that lie below. The risk associated with this activity is an unplanned release of hydrocarbons into the water column of the marine environment as a result of a loss of well control.

In the case of a loss of well control, the worst-case scenario has been modelled as a 139,000 m^3 release of gas condensate. Modelling was conducted at seven different locations across the two permit areas to represent the entire span of possible operations.

This scenario represents an unrestricted open-hole release from a high productivity gas condensate reservoir at a depth of 2,820 mTVDSS, which assumes the failure of multiple control systems, and is considered the worst-case scenario that could potentially occur during the activity.

Hydrocarbon reserves within the Otway basin typically consist of gas condensate. As the reservoir is yet to be drilled, gas condensate properties from another reservoir, which represents the target formation ConocoPhillips Australia is intending to intersect, have been used for modelling.

Based on the fate and weathering modelling, approximately 83 percent of the released condensate would be lost to atmosphere through evaporation over the first day. Approximately 16 percent would continue to evaporate at a slower rate. Only 1 percent is considered persistent and would weather to a waxy substance.

Condensate is categorised as a Group I oil (non – persistent oil) based on the specific gravity of the hydrocarbons. The heavier components of the condensate will tend to entrain into the upper water column during the presence of moderate winds (> 10 knots) and can potentially remain entrained for as long as the winds persist. Subsequently, in calm conditions entrained oil can resurface.

Managing Unplanned Hydrocarbon Release Risks

Unplanned hydrocarbon releases are prevented during activities through a range of preventative control measures involving detailed planning, engineering and execution. If an unplanned hydrocarbon release does occur, ConocoPhillips Australia will have detailed plans to respond.

The primary response plan is the oil pollution emergency plan (OPEP), which is linked to the state and national contingency plans. The OPEP is submitted to NOPSEMA, along with relevant state control agencies, and is assessed as part of the EP assessment process.

There are national and state contingency plans in place across Australia to respond in the event of a large oil spill from all the different types of offshore activities in Australian waters.

Control measures

Although the scenarios discussed above are considered extremely unlikely to occur, the control measures below are also put in place to further reduce the likelihood of a spill.

- Accepted Oil Pollution Emergency Plan (OPEP)
- Operational and Scientific Monitoring Program
- Accepted Well Operations Management Plan
- Source Control Emergency Plan
- Shipboard Marine Pollution Emergency Plan or Shipboard Oil Pollution Emergency Plan.

In addition to the above plans, the following control measures will also be in place for the activity.

- Petroleum safety zone (500m radius) surrounding the drilling rig during the drilling activity.
- Cautionary zone (2km radius) around the drilling activity to minimise the potential for vessel collisions.
- Notifications provided for any on-water activities and ongoing communication with other marine users.

Response Preparedness

As the risk of an unplanned hydrocarbon release cannot be eliminated, detailed response plans for credible events are developed to demonstrate preparedness in the extremely unlikely event a spill occurs. These response plans include integration with local, national and international response organisations to mobilise resources, including experts and specialist equipment.

These plans outline how and what ConocoPhillips Australia will do to respond to an unplanned hydrocarbon release, how it will work with contractors, State and National agencies to respond, and what resources will be used and where these resources are located and need to be mobilised from for a response.

Details on resourcing and response arrangements for an unplanned hydrocarbon release will be provided in an Oil Pollution Emergency Plan (OPEP) which is currently available in draft for consultation on the online consultation hub.

1 NOPSEMA (2019) Environment bulletin: Oil spill modelling

2 Using the methodology described in the AMSA Technical guidelines for preparing contingency plans for marine and coastal facilities.

3 Financial assurance for petroleum titles Guideline (nopsema.gov.au)

Have we missed anyone?

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ConocoPhillips Australia

Questions

and Answers

How will ConocoPhillips Australia determine when and where drilling will occur?

Drilling commencement is dependent on regulatory approval and drilling rig availability. The initial activity will be seabed surveys which will commence no earlier than April 2024.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

The process for selecting drilling locations involves several steps, including the acquisition and processing of seismic data, interpretation of the data to select high probability of success targets, and efficiency of the program to prove up resources with the least amount of wells. A summary of current activities to support this effort are described below:

1. Interpretation of seismic data: Skilled geoscientists analyse the processed data to identify potential drilling locations. They look for features such as faults, folds and stratigraphic traps that could indicate the presence of hydrocarbons.
2. Selection of high probability targets: After identifying potential drilling locations, geoscientists prioritise them based on their likelihood of success. They consider factors such as the quality and quantity of the reservoir, the geologic complexity of the area and the cost of drilling.
3. Efficiency of the program: The goal is to prove up resources with the least number of wells, which involves optimising the drilling program whilst maximising the chance of success.

Overall, the process for selecting drilling locations is a complex and multidisciplinary effort that requires skilled professionals and advanced technology. It involves a careful balance of science, economics and risk management to ensure that drilling efforts are successful and efficient.

What are the chances of a spill?

The likelihood of a vessel-on-vessel collision is assessed using industry published data. The Australian Maritime Safety Authority (AMSA) Annual Report measures incidents which occur in the marine environment. For all marine operations within Australia, there have been two reported serious marine pollution incidents within the last four years. The likelihood of a loss of containment of marine diesel oil is therefore assessed as remote.

The likelihood of a loss of well control is assessed using internationally accepted published data. The International Association of Oil & Gas Producers has published a Risk Assessment Data Directory. There is a 0.016 percent chance that a loss of well control event may occur on any well, which corresponds to a likelihood ranking of remote.

Why is deterministic modelling a more credible worst-case scenario?

Stochastic modelling is the combination of hundreds of credible scenarios overlapped to show the potential largest extent under a range of metocean conditions. While deterministic modelling is the predictive modelling of a single incident subject to a single sample of wind and weather conditions over time. In the unlikely case of an oil spill only one scenario would occur which makes deterministic modelling a more credible worst-case scenario.

Would an unplanned hydrocarbon release reach the shore and if so, where?

In the extremely unlikely case of an unplanned hydrocarbon release there is potential for it to reach the shoreline of Tasmania or Victoria. The closest point of the operational areas to the Victorian and Tasmanian coastline is 19km and 28km respectively. It is important to note that the chances of an unplanned hydrocarbon release are extremely unlikely and comprehensive plans are in place to support a rapid response and integration with local, national and international response organisations to mobilise resources including experts and specialist equipment.

Would ConocoPhillips Australia compensate impacted tourism and fishing industry businesses in the unlikely event of an unplanned hydrocarbon release?

Yes. The scope for compensation would be in accordance with international compensation protocols.

ConocoPhillips Australia is self-insured and is required to hold financial assurance for this activity in line with NOPSEMA requirements. NOPSEMA's 'Financial assurance for petroleum titles Guideline ' states 'It is generally sufficient for the titleholder to hold financial assurance for the greatest reasonably credible costs, expenses and estimable third-party liabilities that may arise from a petroleum incident relating to their activities'.

Environment Plan Summary

ConocoPhillips Australia is planning to undertake exploration activities in operational areas associated with offshore permits VIC/P79 and T/49P located in Commonwealth waters. The overarching purpose of the Environment Plan is to demonstrate that ConocoPhillips Australia's proposed Otway Exploration Drilling Program can meet the objectives of the Environment Regulations. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in operational areas associated with exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration program to be undertaken. Commencement of the exploration program is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than April 2024.

This document summarises the EP for the proposed petroleum activity.

Overview

ConocoPhillips Australia's proposed Otway Exploration Drilling Program (exploration program) involves seabed surveys and drilling a maximum of six exploration wells, and will commence no earlier than April 2024, subject to acceptance of the EP, rig availability and a conducive investment and regulatory environment.

ConocoPhillips Australia has been undertaking consultation with relevant authorities, persons and organisations (relevant persons) since February 2023. The EP has now been submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and is available for public comment on the NOPSEMA website until 18 December 2023. Following the public comment period, comments will be considered, and will be responded to in a thematic manner. ConocoPhillips Australia plans to submit the EP to NOPSEMA for assessment in early 2024. NOPSEMA's EP assessment process does not commence for explorative drilling activities until the EP is submitted following the public comment period.

The EP demonstrates how the exploration program will be completed in an environmentally responsible way.

Environmental Approvals

Offshore petroleum activities are regulated under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGS Act) which requires an accepted EP to be in place for the proposed exploration program.

Under the OPGGS (Environment) Regulations an EP is required, among other things, to:

- comprehensively describe the activity to be carried out under the EP.
- describe the environment that may be affected by the activity, including the values and sensitivities of that environment.
- detail and evaluate the environmental impacts and risks for the relevant activity.
- demonstrate that the impacts and risks of the activity will be reduced to as low as reasonably practicable (ALARP) and an acceptable level (and detail the control measures to be used to achieve this).
- demonstrate that consultation has occurred with each relevant person, whose functions, interests or activities may be affected by the activities to be carried out under the EP.
- demonstrate that the measures (if any) adopted, or proposed to be adopted, because of the consultations are appropriate.

Petroleum activities do not operate to a no-impact standard. Instead, ConocoPhillips Australia is required to define the acceptable levels of impact and risk, and work below those levels. Acceptable levels of impact are established based on relevant up-to-date technical and scientific studies, government advice, and are considerate of the information gathered through the consultation process. This information is used to make predictions of the levels of impact we expect to occur and compares those to the previously defined acceptable levels.

ConocoPhillips Australia is required to demonstrate to NOPSEMA that activities will be carried out in a manner that is consistent with the principles of ecologically sustainable development (ESD) and that environmental impacts and risks of the activity are reduced to ALARP and acceptable levels in the EP. We recognise that consultation is crucial to achieve outcomes that are consistent with the principles of ESD – by ascertaining, understanding and addressing information that we may otherwise not be aware of, by informing our understanding of the environment, and by refining the environmental management of the activity in response.

We have endeavoured to undertake genuine and meaningful consultation, in which relevant persons have been given sufficient information and time to allow them to make an informed assessment of the possible consequences of the activity on their functions, interests or activities. We have encouraged a codesigned process, aiming to work with relevant persons in responding to any issues raised and any measures proposed throughout the consultation process.

Under the OPGGS (Environment) Regulations, all records of consultation including emails, phone calls and meetings, are required to be submitted to NOPSEMA with the EP. We undertook to advise all relevant persons that they may request that particular information provided during consultation not be published and only be provided to NOPSEMA as part of a sensitive information report.

Activity Location and Timings

ConocoPhillips Australia has been granted petroleum titles VIC/P79 and T/49P (permit areas) by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA) and, as a titleholder, has committed to completing exploration activities within time-frames agreed with NOPTA.

ConocoPhillips Australia's permit areas and the associated operational areas, within which petroleum activities may occur, are located 28 km at the closest point from King Island, Tasmania and 19 km at the closest point from the Victorian coastline as shown in Figure 1. Water depths within operational areas range from approximately 53 m to 500 m.

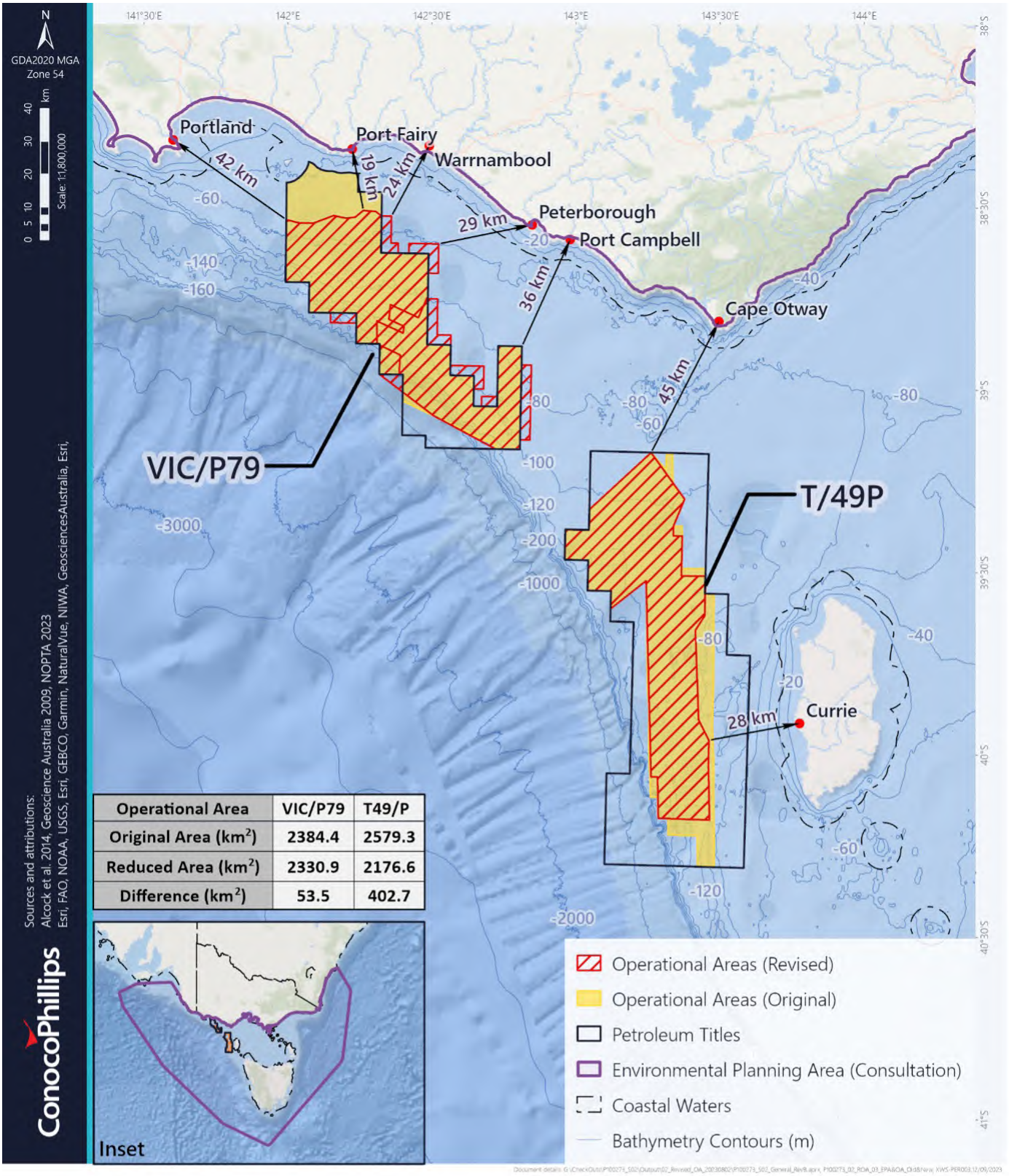


Figure 1: Location of petroleum titles T/49P and VIC/P79 and operational areas

Specific locations for seabed surveys and exploration drilling have yet to be confirmed. The process for selecting final survey and drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, to minimise potential impacts and risks associated with each.

Consequently, ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas associated with the permit areas. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed. It is recognised that this may result in an overestimation of impacts and risks. However, a precautionary approach is being taken that assesses worst-case impacts and applies appropriate control measures across the board to minimise impacts and risks to acceptable levels that are as low as reasonably practicable.

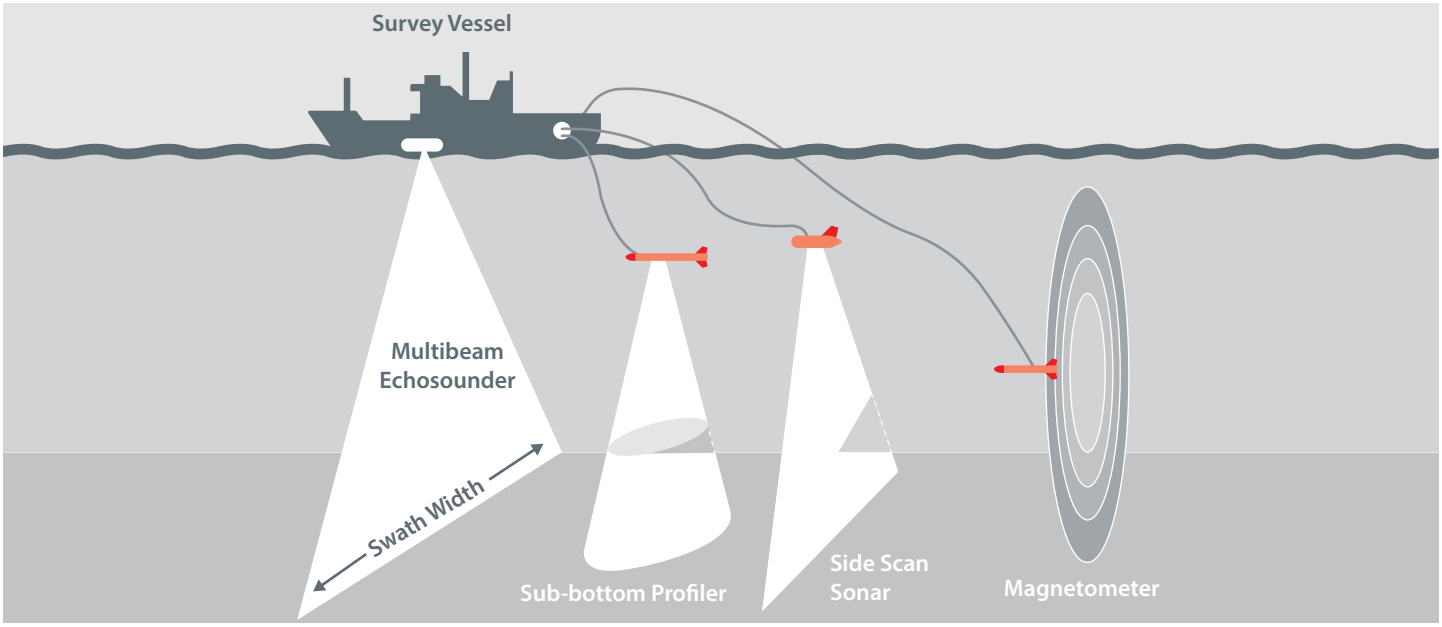
Presenting the full extent of ConocoPhillips Australia's proposed exploration program allows for the consideration of impacts and risks across the broadest possible spatial and temporal extents on one occasion. This is considered preferable as it will reduce consultation burden when compared to the alternative of developing multiple EPs for a reduced number of specific drilling locations, without consideration of feedback from consultation or disclosure of the full extent of the proposed exploration program.

The initial activity involves completing seabed surveys which will commence no earlier than 1 April 2024, subject to EP acceptance. Exploration drilling will not commence before 1 October 2024. Although the proposed duration of the EP is until 31 December 2028, the activity will not occur continuously over this duration.

Overview of proposed activities

Key activities proposed under the Otway Exploration Drilling Program are summarised below.

Seabed Surveys



Seabed surveys will be conducted by one or two vessels travelling at slow speeds during data acquisition or stationary, for example, during geotechnical sampling. There will be a 500-metre radius Safe Navigation Area (SNA) in place around survey vessels and any towed equipment for the duration of the activity. Seabed surveys will be conducted at a maximum of nine locations, each location approximately 6 km by 6 km (or 36km^2) in size and are expected to take one week at each location.

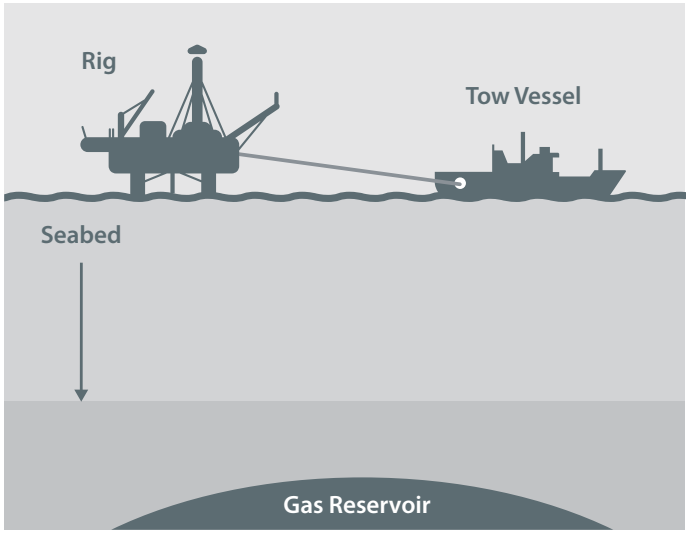
Seabed surveys are different from a seismic survey. They are designed specifically to map the seabed and directly below the seabed (up to approximately 100 metres), whereas seismic surveys are designed to image the subsurface up to several kilometres below the seabed. Sound generated from seabed survey equipment is significantly lower in intensity and duration than sound produced from a seismic array.

In the event of unsafe environmental conditions such as a heavy sea state, equipment may be retrieved, and survey vessels may transit away from the operational area to a safer location, noting that once a vessel leaves the operational area it is no longer undertaking a petroleum activity.

Exploration Drilling

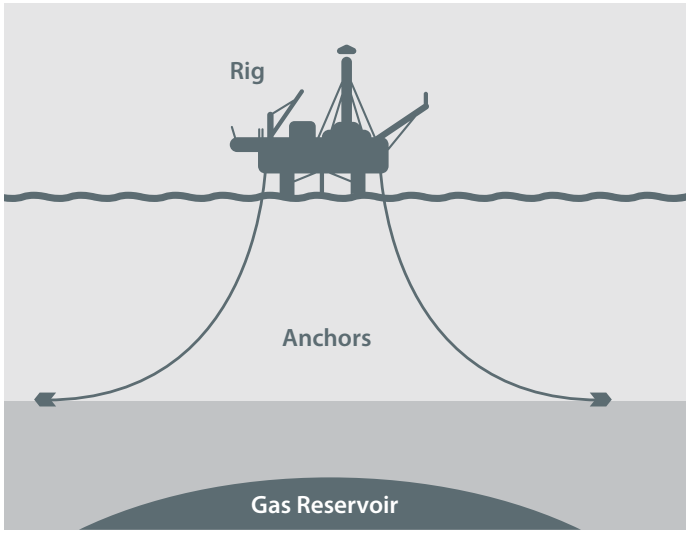
Exploration wells will be drilled using a single semi-submersible mobile offshore drilling unit (MODU, rig or drilling rig). Drilling each well typically takes between 30-40 days and may take up to a maximum of 90 days depending on weather and operational delays. Drilling involves several steps, summarised in the graphics below.

1. Rig towed to site



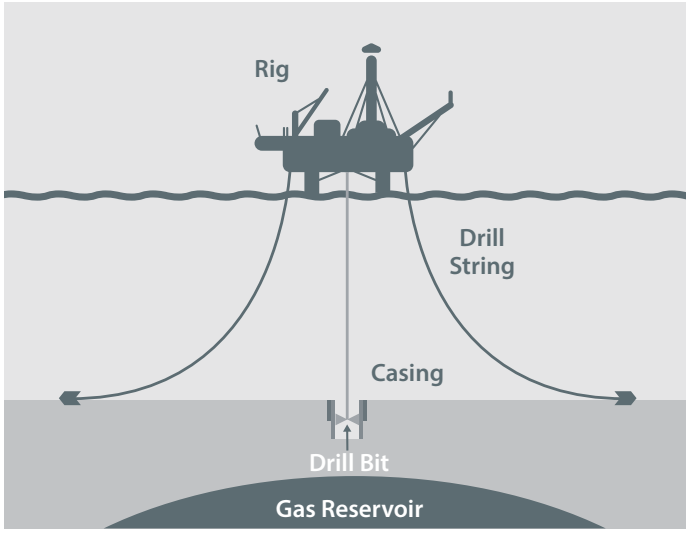
A drilling rig is towed to the drilling location.

2. Anchors laid on seabed



Anchors are laid on the seabed and can be laid prior to or on arrival of the drilling rig.

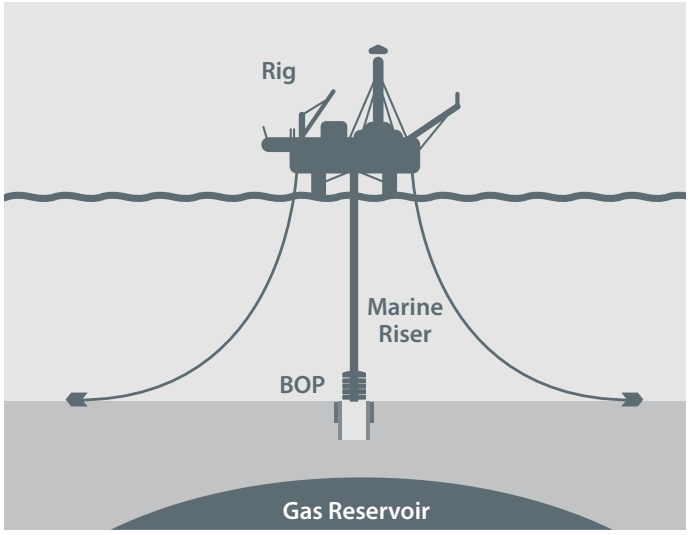
3. Top hole constructed



The top hole is drilled and then cased with cement and steel. The top hole is approximately 1m in diameter.

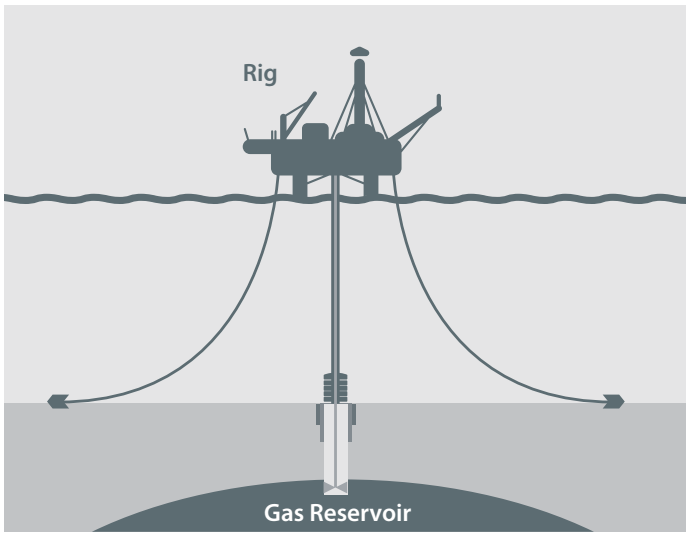
Supply boats will regularly service the rig throughout the drilling process.

4. Marine riser and blow-out preventer (BOP) installed



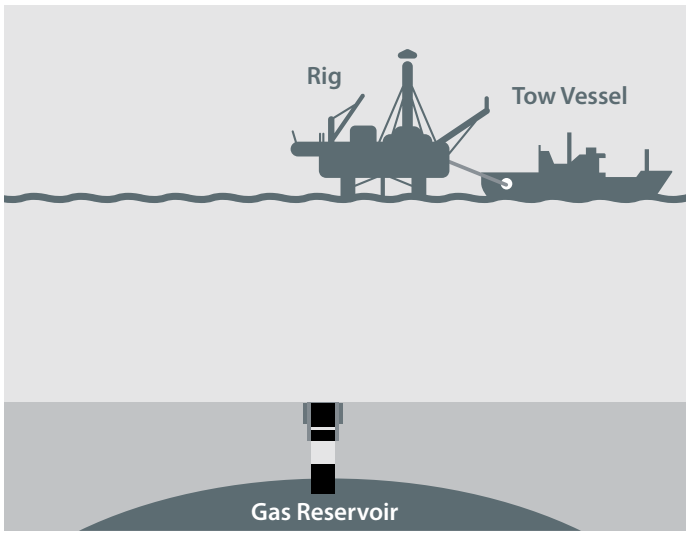
The marine riser returns drilling fluids and cuttings to the drilling rig for reconditioning, recirculation and/or discharge. The BOP is an assembly of specialised safety valves put in place before drilling into the reservoir and is used in the unlikely event of an emergency to control well pressure and prevent a loss of well control release.

5. Drill and construct well to gas reservoir



In the event that a gas reservoir is discovered, the well may be tested by flowing gas to the surface for analysis and then flaring through the flare boom.

6. Well permanently plugged and abandoned



Cement plugs are placed within the well as part of a process called plug and abandonment. The marine riser, BOP and wellhead are removed so no equipment is protruding from the seabed. The anchors are then removed so the drilling rig can be towed to the next drilling location or demobilised from the area on completion of the program.

Drilling Rig and Support Vessels

ConocoPhillips Australia has secured a harsh environment semi-submersible rig as part of a rig consortium. However, drilling remains dependent on the EP being accepted by NOPSEMA.

To ensure safe, efficient operations and minimise our environmental footprint, the vessels that will be used to support the drilling campaign will be multi-purpose vessels with the ability to manage anchors for the drill rig, carry out towage operation of the rig, conduct supply runs from a shore supply base and carry out safety standby duties at the rig itself. All vessels will be required to have a valid Offshore Vessel Inspection Database (OVID) inspection and meet the ConocoPhillips Global Marine Assurance and Vetting standard.

The transit of vessels outside the operational areas is not within the scope of the EP and is managed under other regulatory frameworks such as the Commonwealth Navigation Act 2012.

Aircraft including helicopters, fixed wing planes and drones may be used for crew changes, critical supply deliveries, surveillance and emergency response use.

More detail about the specific activities proposed to be carried out under the EP have been provided during consultation, with the provision of draft EP chapters on the ConocoPhillips Australia Otway Exploration Drilling Program Consultation Hub on 31 August 2023. The Environment Plan has now been made available for public comment from 16 November until 18 December 2023 and can be accessed on the NOPSEMA website: https://info.nopsema.gov.au/home/open_for_comment

The Existing Environment

Understanding the existing environment, including historical and existing threats and pressures, creates a reference point from where we can evaluate the impacts and risks of the proposed Otway Exploration Drilling Program. The existing condition of the environment is also used to determine the significance of impacts and risks and to identify additional mitigation measures, management strategies or baseline studies necessary to improve the environmental management of the activity.

The Environmental Planning Area

A broad Environmental Planning Area (EPA) was established in May 2023 to support consultation and the preparation of the Otway Exploration Drilling Program EP. This area extends across the regional marine environment and includes a 1 km buffer into coastal areas, as shown in Figure 2 below. The EPA, along with an interactive mapping tool provided during consultation, has supported the identification of marine and coastal environmental values and sensitivities more broadly within the region, and relevant persons and organisations with functions, interests and activities that may be affected by the proposed activity.

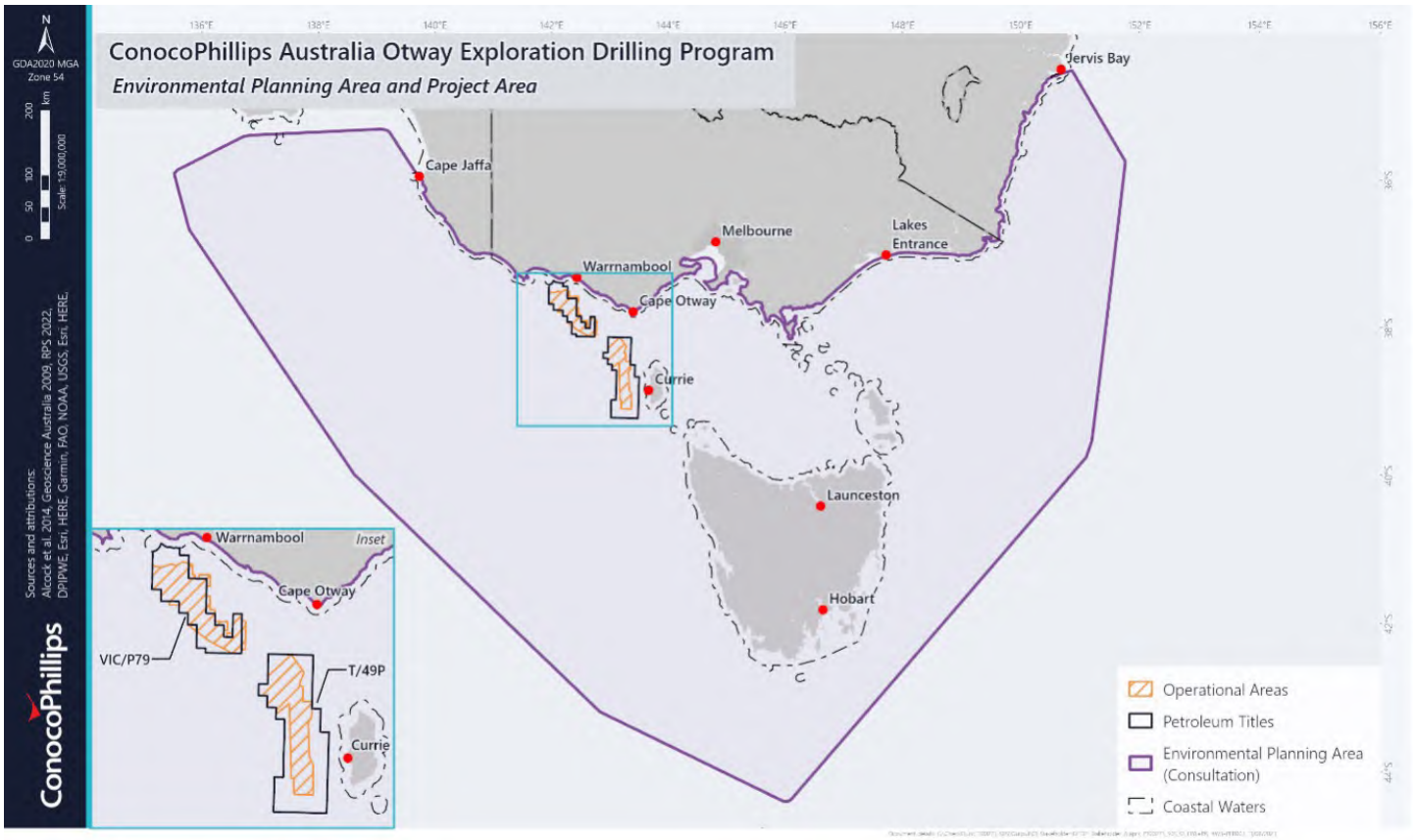


Figure 2: Otway Exploration Drilling Program Environmental Planning Area

The Environment That May Be Affected

The Environment Regulations require that the EP describes the 'Environment that May Be Affected' (EMBA) by the proposed activity. It is common to define the EMBA using worst-case hydrocarbon spill modelling.

Modelling provides an informed estimate of where a hydrocarbon spill may go if no response is undertaken, and supports the prediction of possible effects. Hundreds of hypothetical individual spill scenarios (1400 in this case) are simulated to show where hydrocarbon from a spill could go under different metocean conditions (such as currents, wind, waves and temperature).

Overlaying hundreds of hypothetical spills into a single map using low threshold exposure values, as shown in Figure 3, supports the identification of environmental values and sensitivities, the prediction of possible effects, and the development of protection priorities and preparedness plans that cover the full range of possible locations that could be affected depending on metocean conditions.

The low threshold exposure values are considered below levels which would cause environmental harm and are more indicative of the areas perceived to be affected due to e.g. visibility on the sea surface. They may trigger temporary closures of areas as a precautionary measure.

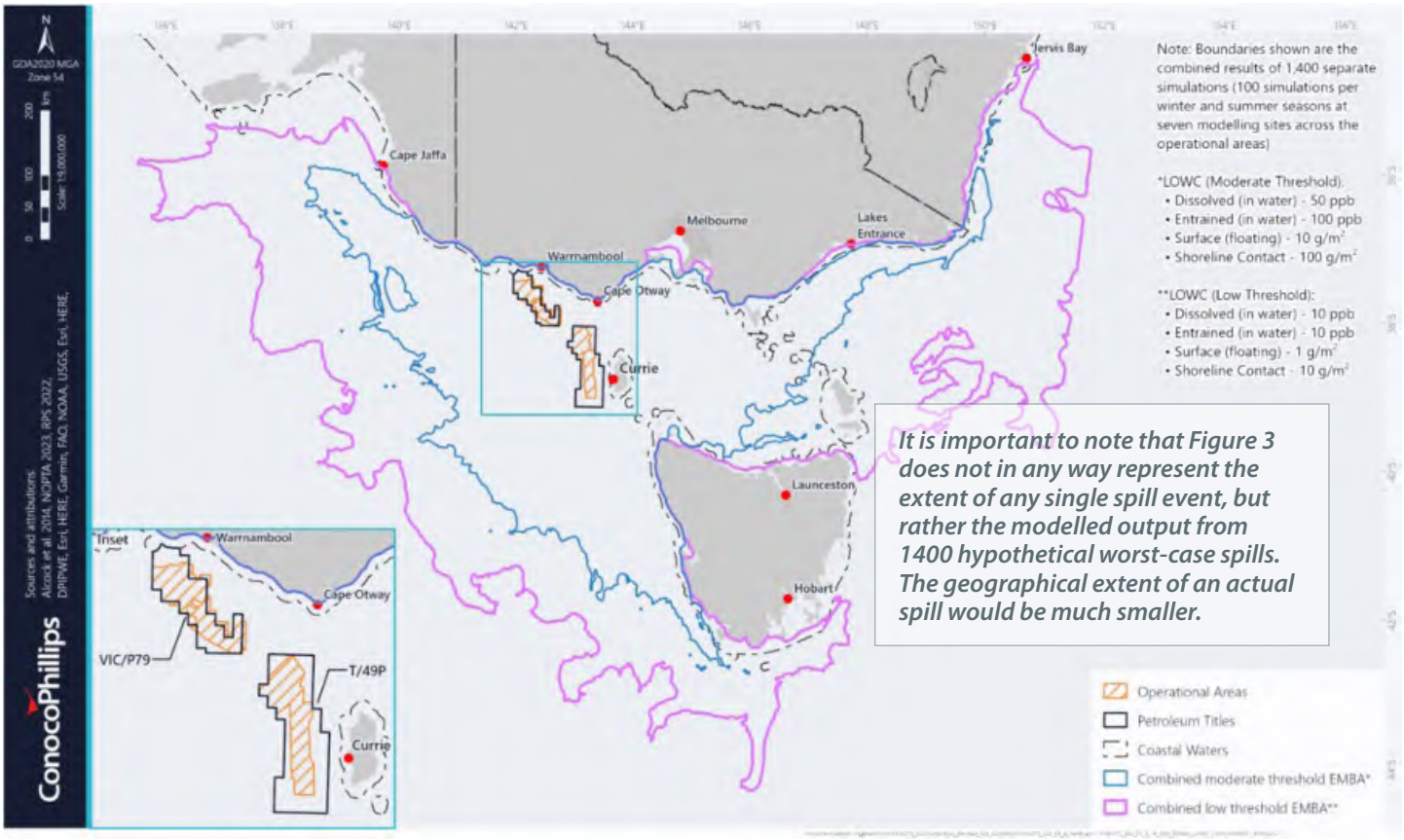


Figure 3: Otway Exploration Drilling Program EMBA at the low and moderate threshold

The OPGGS Act requires titleholders, like ConocoPhillips Australia, to prevent the escape of hydrocarbons to the environment from their activities. Prior to activities occurring titleholders must demonstrate to NOPSEMA that all reasonably practicable measures are in place to prevent oil pollution. Failure to prevent the escape of petroleum is an offence.

Although extremely unlikely to occur, all offshore operations do carry a risk of an unplanned hydrocarbon release and response plans are required to be developed and tested. ConocoPhillips Australia's primary response plan was made available on the ConocoPhillips Australia Otway Exploration Drilling Program Consultation Hub in August 2023 and is available in the Appendices to the Environment Plan on NOPSEMA's website.

More information on pollution management and preparedness can be found on NOPSEMA's website which can be accessed by scanning the QR code using any smart device.

Environmental Values and Sensitivities within the EMBA

Environmental values and sensitivities identified within the EMBA encompass rare, important and/or sensitive physical, ecological, socio-economic and cultural features of the environment. Examples include:

- The values and sensitivities of the marine environment including benthic communities and habitats, marine fauna and the quality of the water, sediment and biota.
- The values and sensitivities that exist in relation to Protected Matters (Part 3 of the EPBC Act), i.e. conservation areas such as World Heritage and National Heritage values, RAMSAR wetlands, listed threatened species and ecological communities, listed migratory species and Marine Parks.
- The values and sensitivities of cultural heritage and socio-economic features of the environment including the rights of other marine users.

More information on identified values and sensitivities within the EMBA is provided below.

Conservation Values and Sensitivities

Conservation values and sensitivities are primarily associated with matters of national environmental significance (MNES) protected under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Additional conservation values and sensitivities have also been identified where they are of regional importance for either the region's biodiversity or ecosystem function and integrity.

Values and sensitivities identified within the EMBA that are either close to operational areas or have coastal features are summarised in Table 1. Additional details for each of the identified values below, and all others within the EMBA, can be found in the EP. An interactive map of values and sensitivities can be found at the online consultation hub by scanning the QR Code.

ConocoPhillips Australia sought input through the consultation process to validate and improve our understanding of the environment in the Otway region. We recognise the importance of local knowledge in this process.

Table 1: Summary of Conservation Values and Sensitivities

Conservation Values	Description of values and sensitivities	Operational Areas	EMBA
Australian Marine Parks (AMPS) – The Multiple Use Zone of the Zeehan AMP is the only AMP that overlaps the operational areas (at T/49P). The multiple use zone provides for a wide range of sustainable activities by allowing those that do not significantly impact benthic (seafloor) habitats or have unacceptable impact on the values of the area. Authorisation is required for activities within this zone, such as commercial fishing and mining, among others. No other Marine Parks are overlapped by the operational areas.			
Zeehan AMP	- Submarine canyons that incise the continental slope, extending from the shelf edge to the abyssal plain. - Variety of seabed habitats supporting a range of communities and commercial species such as giant crab and rock lobster. - Important foraging and migration areas for a variety of species including seabirds, the white shark and cetaceans.	✓	✓
Apollo AMP	- Rocky reef patches interspersed with areas of sediment and rich, benthic fauna dominated by sponges. - Important foraging and migration areas for a variety of species including seabirds, the white shark, seals and cetaceans. - The wreck of the MV City of Rayville, a known heritage site of cultural significance.	X	✓
Beagle AMP	- Sponge gardens and important habitat for a range of species including sharks and cetaceans. - Foraging areas and islands that provide haul-out and breeding grounds for seabirds, little penguins and Australian fur seals. - The wrecks of the SS Cambridge steamship and the ketch, Eliza Davies, as known heritage sites of cultural significance.	X	✓
Boags AMP	- Sandy seabed habitat for benthic species, fish and extensive sponge gardens. - Adjacent to important colonies for shy albatross, fairy prions, cormorants, petrels, little penguins and Cape Barren geese. - Important foraging and migration areas for a variety of species including seabirds, the white shark and cetaceans. - Intersects the migration route for the Critically Endangered orange-bellied parrot.	X	✓
Franklin AMP	- Shallow continental shelf ecosystems including the major bioregions of western Bass Strait and the Tasmanian Shelf. - Feeding grounds for seabirds, including shy albatross, short-tailed shearwater, Australasian gannet, fairy prion, little penguin, petrels, cormorant and gulls that breed on nearby Hunter Island Group. - Foraging area of the white shark.	X	✓
Nelson AMP	- Plateaus, knolls, canyons and the abyssal plain. - Potential migration area of the blue, fin, sei, and humpback whales.	X	✓
World Heritage Properties (with outstanding universal value) **and National Heritage Places** (with outstanding significance to the nation) with coastal features. There are no world heritage or national heritage places within the operational areas.			
The Tasmanian Wilderness World Heritage Area (TWWHA)	The TWWHA intersects the EMBA along its coastal extent of 755 km in the south-south-west of Tasmania. The Tasmanian wilderness is one of the largest temperate wilderness areas and a precious cultural landscape for Tasmanian First Nations people who have lived there for at least 35,000 years.	X	✓
Great Ocean Road	Designed as a memorial to all Australian First World War servicemen, and a gift to residents and tourists to enable access to the spectacular coastal vistas and landscapes, the Great Ocean Road runs through an area that is 150 million years old and yields rare fossils and information on geomorphology and coastal erosion processes.	X	✓

Table 1: Summary of Conservation Values and Sensitivities

Conservation Values	Description of values and sensitivities	Operational Areas	EMBA
Recherche Bay (North East Peninsula) Area	Landed in 1792, French explorers set up camp and prepared a garden and scientific observatory, and catalogued species while supplies were replenished. Recordings, from the French perspective, of encounters with First nations peoples, provide important observations into the lives of the Tasmanian First Nations people.	X	✓
Western Tasmania Aboriginal Cultural Landscape	The remains of shell middens in the Western Tasmania Aboriginal Cultural Landscape and accompanying hut depressions provide evidence of an unusual, specialised and more sedentary First Nations community that began almost 2,000 years ago and continued until 1830.	X	✓
Commonwealth Heritage Places – These include natural, Indigenous and historic heritage places owned or controlled by the Commonwealth. There are no known Commonwealth Heritage Places within the operational areas.			
- Jervis Bay Territory, 7,600 ha home of the Koori people of Wreck Bay with the majority of the Territory still in its natural state. - Tasmanian seamounts located 50 and 100 km off southern Tasmania, with approximately 70 seamounts on the continental slope. - Beecroft Peninsula on the northern headland of Jervis Bay, of high cultural significance to the Jerrinja and Wreck Bay First Nations communities. - Swan Island and Naval Waters heritage place located off the Bellarine Peninsular in Victoria. - Point Wilson Defence Natural Area covering approximately 176 ha of the central-western coast of Port Philip Bay. - HMAS Cerberus Marine and Coastal Area with geomorphological, botanical and zoological significance near Western Port in Victoria. - Crocodile Head Area, an indigenous listing of approximately 20 ha, located near Crocodile Head and Currarong on the Beecroft Peninsular.		X	✓
Wetlands of International Importance (Ramsar Wetlands) – These are wetlands that are representative, rare or unique, or are important for conserving biological diversity. There are no Ramsar wetlands within the operational areas.			
- Corner Inlet approximately 200 km south-east of Melbourne, Victoria - East Coast Cape Barren Island Lagoons on Cape Barron Island, part of the Furneaux Group, about 50 km from the north-eastern tip of Tasmania. - Gippsland Lakes approximately 300 km east of Melbourne, Victoria. - Glenelg Estuary and Discovery Bay Wetlands in western Victoria, approximately 430 km west of Melbourne, Victoria. - Lavinia, approximately 12 km north of Naracoopa on King Island, Tasmania. - Logan Lagoon in the south-east corner of Flinders Island, Tasmania, approximately 6 km north-east of Lady Barron. - Piccaninnie Ponds Karst Wetlands 32 km south-east of Mount Gambier, South Australia. - Port Phillip Bay (western Shoreline) and Bellarine Peninsula near the city of Geelong in Victoria. - Western Port approximately 60 km southeast of Melbourne, Victoria.		X	✓
Threatened Ecological Communities (TECs) with coastal features – TECs provide wildlife corridors and/or habitat refuges for many plant and animal species. There are no TECs within the operational areas.			
- Assemblages of species associated with Open-Coast Salt-Wedge Estuaries of Western and Central Victoria Ecological Community - Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland Ecological Community - Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland - Giant Kelp Marine Forests of South East Australia - Subtropical and Temperate Coastal Saltmarsh		X	✓

Table 1: Summary of Conservation Values and Sensitivities

Conservation Values	Description of values and sensitivities	Operational Areas	EMBA
Key Ecological Features (KEFs) – Areas considered to be of regional importance for either the region's biodiversity or ecosystem function and integrity. There are no KEFs within the operational areas.			
Bonney Coast Upwelling	The Bonney coast upwelling seasonally delivers cold nutrient rich water to the sea surface which supports regionally high productivity and high species diversity.	X	✓
West Tasmania Canyons	The West Tasmania canyons have the greatest density of canyons within Australian waters, with 72 submarine canyons incised over a 500 km-long section of slope. This KEF is located on the continental slope west of Tasmania, within the EMBA, and influences currents, acts as a sink for organic sediments and debris, and creates upwellings that result in productivity and biodiversity hotspots.	X	✓

Ecological Environment

Ecological values and sensitivities are associated with matters of national environmental significance (MNES) protected under the EPBC Act such as threatened and migratory species. These are identified using the Australian Government's Protected Matters Search Tool (PMST). Additional ecological values and sensitivities have also been identified where they are considered to be of regional importance such as declared biologically important areas (BIAs). These are summarised in Table 2 below. Additional details for each of the identified values below, and all others within the EMBA, can be found in the EP.

ConocoPhillips Australia has considered government guidance, including conservation management plans, recovery plans, conservation advice and threat abatement plans in the development of the EP and has identified control measures to reduce impacts and risks to marine fauna and biologically important areas to ALARP and to acceptable levels.

Table 2: Summary of Ecological Values and Sensitivities

Ecological Values	Description of values and sensitivities	BIAs within Operational Areas	BIAs within EMBA
Fish and Sharks	The PMST report identified 63 fish species protected under the EPBC Act potentially occurring in the EMBA. This includes twenty species listed as threatened, primarily related to coastal habitat degradation, six species listed as migratory and a further 40 listed as marine (all of which are Sygnathiformes – seahorses, pipefishes and their relatives which are typically found in shallow water).	White shark – foraging, distribution BIAs. The white shark is widely distributed throughout temperate and sub-tropical regions in the northern and southern hemispheres.	White shark – foraging, distribution, breeding BIAs.

Table 2: Summary of Ecological Values and Sensitivities

Ecological Values	Description of values and sensitivities	BIAs within Operational Areas	BIAs within EMBA
Seabirds and Shorebirds	The PMST report identified 137 bird species with the potential to occur within the EMBA, of which 62 are listed as threatened including 8 Critically Endangered (curlew sandpiper, eastern curlew, orange-bellied parrot, great knot, swift parrot, King Island scrubtit, regent honeyeater, plains wanderer), 19 Endangered and 35 Vulnerable. The National Recovery Plan for Threatened Albatrosses and Giant Petrels 2011-2016 states that the most pervasive threat to albatross and giant petrel survival is the accidental mortality and injury arising from interactions with human fishing activities. The Wildlife Conservation Plan for Seabirds (2020) lists a range of anthropogenic threats to shearwaters including climate change, marine pollution, and mortality and injury arising from interactions with commercial fishing activities. The Wildlife Conservation Plan for Migratory Shorebirds (2015) notes that threats to these species include habitat loss and modification, marine pollution, climate change, hydrological changes, and mortality and injury arising from interactions with commercial fishing activities. The National Recovery Plan for the Orange-bellied Parrot (2016) states this species may be impacted by barriers to movement, though there is little more than anecdotal evidence, as individuals may be killed by flying into barriers, or behaviour may be modified by the presence of barriers such as wind turbines and illuminated boats, with the impacts of barriers greatest where they occur on migration routes. For the little penguin, identified threats include mortality and injury arising from interactions with commercial fishing, vessel collisions, oil pollution and changing oceanic conditions affecting food availability and reproductive success.	Foraging BIAs for Antipodean albatross, Black-browed albatross, Buller's albatross, Campbell albatross, Common diving-petrel, Indian yellow-nosed albatross, Short-tailed shearwater, Shy albatross, Wandering albatross, Wedge-tailed shearwater and White-faced storm-petrel.	• Foraging BIAs for Antipodean albatross, Black-browed albatross, Black petrel, Buller's albatross, Campbell albatross, Caspian tern, Fairy tern, Flesh-footed shearwater, Great-winged petrel, Indian yellow-nosed albatross, Northern giant petrel, Pacific Gull, Southern giant-petrel, Wandering albatross, White-capped albatross. • Breeding and foraging BIAs for Black-faced cormorant, Common diving-petrel, Greater crested tern, little penguin, Short-tailed shearwater, Shy albatross, Soft-plumaged petrel, Sooty shearwater, Wedge-tailed shearwater, White-faced storm-petrel, White-fronted tern. • Migration BIA for Wilsons storm petrel. • Aggregation and foraging BIAs for Australasian gannet.

Table 2: Summary of Ecological Values and Sensitivities

Ecological Values	Description of values and sensitivities	BIAs within Operational Areas	BIAs within EMBA
Marine Turtles (Reptiles)	The PMST report identified 5 species of threatened marine turtles with the potential to occur within the EMBA. Two are Endangered (loggerhead turtle and the leatherback turtle) and three are listed as Vulnerable (green turtle, hawksbill turtle and flatback turtle). The Recovery Plan for Marine Turtles in Australia (2017) lists a range of anthropogenic threats to marine turtles which include climate change and variability, marine debris, chemical and terrestrial discharge, fisheries bycatch, light pollution, vessel disturbance and sound interference.	None Even though there are no BIAs in the areas, marine turtles, primarily leatherbacks, are expected to occur as rare transient individuals within the operational areas.	None There are no known nesting or foraging BIAs for marine turtles in the region.
Marine Mammals	The PMST report identified 39 species of marine mammal with the potential to occur within the EMBA. Six are threatened species, including three Endangered species (blue whale, southern right whale and Australian sea lion) and three Vulnerable species (sei whale, fin whale, and the southern elephant seal). The Conservation Management Plans for Blue Whales (2015) and Southern Right Whales (2012) identify threats related to vessel disturbance and strike, climate change and variability, sound interference and entanglement. Similar threats are identified for humpback, dwarf minke, sperm, sei and fin whales. Conservation advice from the Threatened Species Scientific Committee (TSSC) indicates interactions with commercial fishing and entanglement are key threats to Australian sea lions, with secondary threats associated with oil spills, noise emissions and climate change.	Blue whale – foraging, distribution BIAs Southern right whale – migration BIA	• Blue whale – foraging, distribution BIAs. • Southern right whale – migration, reproduction BIAs. • Humpback whale, Sperm whale, Australian sea-lion – foraging BIAs. • Indian Ocean bottlenose dolphin, Spotted bottlenose dolphin – breeding BIAs.

Socio-Economic and Cultural Heritage Values

The socio-economic values assessment for the exploration program encompasses the communities and economies that depend on the environment for their livelihoods, health, and well-being. Maritime heritage and cultural values also exist across the region. In the context of marine areas, the socio-economic and cultural heritage environment includes a range of activities that require a close connection to the sea and its resources. These are summarised in Table 3, with more detail provided in the EP.

Table 3: Summary of Socio-Economic and Cultural Values and Sensitivities

Value and Sensitivity	Description
Socio-Economic	
Coastal Settlements	The closest Tasmanian coastal settlement to the operational areas is King Island, located approximately 28 km to the east of T/49P. Approximately half of the population (of 1,617 people) live in the township of Currie located on the west coast, with the remainder in smaller townships and along the coastline from Wickham in the north to Grassy and Naracoopa in the east. The closest Victorian coastal settlement region to the operational areas is the shire of Moyne, located approximately 19 km to the north of VIC/P79. Moyne supports a population of 17,374 people.
Offshore Exploration, Production and Development	Although no other confirmed third-party petroleum exploration or drilling activities are planned within the operational areas during the Otway Exploration Drilling Program, a number of other petroleum activities within the Otway Basin are either occurring, such as long-term operations, or are considered reasonably foreseeable. These have been included the assessment of impacts and cumulative impacts in the EP.
Offshore Renewables and Other Infrastructure	No confirmed offshore renewable energy projects overlap the operational areas; however, there are two proposed offshore wind farm projects in the feasibility stages of development overlapped by the operational area of VIC/P79. These areas represent proposals for feedback only and have not been "declared to be suitable" by the Australian Government. The Indigo-central subsea telecommunications cable connecting Perth to Sydney runs in an easterly-westerly direction to the north of King Island and overlaps with the T/49P operational area. The Victorian Desalination Plant, located at Wonthaggi, is approximately 200 km northeast of the T/49P operational area. Aquaculture facilities operate nearshore sub-surface seawater intakes along the Victorian coastline and on King Island.
Defence Activities	The South-east Marine Region is important for a range of defence activities particularly training exercises. Australian Defence Force (ADF) activities in the region include transit of naval vessels, training exercises, shipbuilding and repair, hydrographic survey, surveillance, enforcement, and search and rescue (DoE 2015b). No defence practice, training or protected areas were identified within the operational area; however, the potential presence of unexploded ordnance was identified, and risk assessed.
Shipping	The South-east Marine Region (which includes Bass Strait) is one of the busiest shipping regions in Australia. Shipping consists of international and coastal cargo trade, passenger services and cargo and vehicular ferry services across Bass Strait. Commercial vessels use the route when transiting between ports on the east, south and west coasts of Australia, and there are regular passenger and cargo services between mainland Australia and Tasmania. The EMBA overlaps the majority of the South-east Marine shipping region, with the main shipping route running through the VIC/P79 operational area.
Tourism	The King Island tourism sector is estimated to generate $5 million in annual economic output, contributing to a total output from the King Island economy of $190.6 million. King Island is renowned for its fresh produce, recreational activities including fishing, surfing, kiteboarding and golf. Tourism employed 34 people representing 4.9% of King Island employment in 2013. In Victoria, a total of 53.9 million domestic visitors visited the region, however, these levels are only 88% of the pre-pandemic numbers (Business Victoria, 2023). The Great Ocean Road tourism region in particular places enormous importance on the coastal and marine environment, including whale watching, recreational diving, surfing and fishing. The 2018/2019 season employed 13,100 people in tourism, or 19% of workers in the region (Business Victoria 2023).

Table 3: Summary of Socio-Economic and Cultural Values and Sensitivities

Value and Sensitivity	Description
Commonwealth Managed Fisheries	The following Commonwealth managed fisheries have recorded fishing in the EMBA in the last 10 years. Details are provided below regarding the overlap with operational areas: • Southern and Eastern Scalefish and Shark Fishery (SSESF) – The operational areas overlap areas of low, medium and high Shark Gillnet sub-sector fishing intensity (recorded 2016-2021) by approximately 1.54%, 0.52% and 0.77% respectively; with no known catch recorded for the Shark Hook sub-sector or Scalefish Hook sector within operational areas; the operational areas overlap areas of low Commonwealth Trawl Sector (CTS) intensity fishing in T/49P (<0.5 hours/km2) and low and medium intensity fishing in VICP/79 (recorded 2016 and 2021). • Southern Squid Jig Fishery (SSJF) – The VICP/79 operational area overlaps areas of low, medium and high fishing intensity (recorded 2016-2021) by approximately 15.95%, 25.01% and 36.1% respectively. • Bass Strait Central Zone Scallop Fishery (BSCZSF) – No known catch recorded within operational areas. • Eastern Tuna and Billfish Fishery (ETBF) – No known catch recorded within operational areas. • Southern Bluefin Tuna Fishery (SBTF) – No known catch recorded within operational areas. • Small Pelagic Fishery (SPF) – No known catch recorded within operational areas.
State-Managed Fisheries	The following State-managed fisheries have recorded fishing in the EMBA in the last 10 years. Details are provided below regarding the overlap with operational areas: • **Victorian-managed fisheries:** - Southern Rock Lobster – The operational areas overlap 11 of the 53 reporting blocks recording vessel activity within the SRL fishery, nine of which report <5 vessels. The remaining blocks range between five and seven vessels. - Giant Crab – 28 reporting grids overlap operational areas. However, catch and effort data is not available due to low number (<5) operators. - Multi-Species Ocean – Limited data is available due to confidentiality as there are less than five active fishers. - Octopus – 2 reporting grids overlap the northern extent of the VICP/79 operational areas. Catch and effort data is not available due to the low number of operators (<5). - Abalone, Eel and Pipis – No overlap with operational areas. - Scallop, Sea Urchin and Wrasse – No known catch recorded within operational areas. • **Tasmanian-managed fisheries:** - Southern Rock Lobster – 17 reporting grids overlap the T/49P operational area. However, catch and effort data is not available due to the low number of operators (<5). - Giant Crab – 10 reporting grids overlap the T/49P operational area. However, catch and effort data is not available due to the low number of operators (<5). - Abalone, Commercial Dive and Marine Plants – No overlap with operational areas. - Octopus, Scalefish and Scallops – No known catch recorded within operational areas. • **South-Australian managed fisheries:** - Abalone, Charter boat, Giant Crab, Marine Scalefish, Miscellaneous, Sardine and Rock Lobster – No overlap with operational areas • **NSW-managed fisheries:** - Abalone, Lobster, Ocean hauling, Ocean trap & line, Southern fish trawl, Ocean trawl, Sea urchin and turban shell restricted fishery and S37 permit – No overlap with operational areas.

Table 3: Summary of Socio-Economic and Cultural Values and Sensitivities

Value and Sensitivity	Description
Cultural Heritage	
Maritime Archaeological Heritage	The Australasian Cultural Heritage Database lists hundreds of wrecks both historic (>75 years old) and non (< 75 years old) within the EMBA. During consultation it was identified that, although no wrecks are identified within the operational areas, it is considered possible that unidentified shipwrecks and aircraft may be present. Many of the positions provided in the database, including those near the operational areas, are not the known position but are the centre point of an area within which a shipwreck may be located. In addition to the general protection provided by the Underwater Cultural Heritage Act 2018, there are a number of shipwrecks within Australia which have established protected zones. Zones may be established for a number of reasons including conservation, management, or public safety considerations. Within the EMBA there are four shipwrecks with established protection zones.
First Nations Heritage	The Otway Exploration Drilling Program is located within western Bass Strait which is the marine environment between mainland Australia and Tasmania. Bass Strait was formed during the last glacial period, between 110,000 and 12,000 years ago. Sea Country is of First Nations cultural heritage significance. Although this area is now submerged, it had been occupied for thousands of years (Biosis 2023). The South-east Regional Marine Plan Assessment Report titled 'Sea Country – an Indigenous perspective', states "As on land, saltwater country contained evidence of the Dreamtime events by which all geographic features, animals, plants and people were created. It contained sacred sites, often related to these creation events, and it contained tracks, or Songlines along which mythological beings travelled during the Dreamtime. The sea, like the land, was integral to the identity of each clan, and clan members had a kin relationship to the important marine animals, plants, tides and currents." "In addition, 'Indigenous peoples still relate to land that was inundated by sea during the last ice age and regard it as their own." ConocoPhillips Australia is aware of First Nations peoples' connection to coastal areas, totem species and Sea Country and will support the development of a Cultural Heritage Protection Program (CHPP) that will be co-designed with First Nations cultural heritage advisors and indigenous communities, to protect cultural values and sensitivities (CM05). **We are aware of the following Indigenous Protected Areas and Consultation Areas in Victoria, within the EMBA:** • The Deen Maar Indigenous Protected Area (IPA) dedicated in 1999. This IPA covers 453 hectares of rolling sand dunes, limestone ridges, a river, lake and wetlands and is located on the south-west coast of Victoria near the town of Yambuk. • The Gunditjmara Sea Country Indigenous Protected Area (IPA) Consultation Area (Gunditj Mirring Traditional Owners Aboriginal Corporation with Eastern Marr Aboriginal Corporation). The consultation project aims to support Indigenous-led consultation with Traditional Owners and other stakeholders, management planning, and on-sea/on-land management. • The Nanjit to Mallacoota Sea Country IPA Consultation Area (Gurnaikurnai Land and Waters Aboriginal Corporation), in coastal waters of the Gippsland region in Victoria. The area comprises numerous marine and coastal parks and includes the Ramsar listed Gippsland Lakes and Raymond Island, a highly significant cultural site. **We are aware of the following Indigenous Protected Areas In Tasmania, within the EMBA:** • The Preminghana IPA covering 524 hectares of land to protect historic Aboriginal engraving sites and the endangered Preminghana daisy, dedicated in 1999. • The Babel Island IPA, located to the east of Flinders Island, with Australia's largest mutton bird rookery, dedicated in 2009. • The Badger Island IPA dedicated in 2000. • The Iungatalanana (Clarke Island) IPA, being the third largest of the Furneaux islands, dedicated in 2009. • The Mount Chappell Island IPA dedicated in 2000 with mutton bird rookeries accommodation for community members. • Big Dog Island, an important mutton-birding island located to the south of Flinders Island, dedicated in 2009.

Table 3: Summary of Socio-Economic and Cultural Values and Sensitivities

Value and Sensitivity	Description
Cultural Heritage	
Native Title	The Native Title Act 1993 (Cth) is a law that was passed by the Australian Parliament which recognises the rights and interests of Aboriginal and Torres Strait Islander people in land and waters according to their traditional laws and customs. Within the EMBA in Tasmania, there are no registered native title claims. **Within the EMBA in Victoria, native title has been recognised to:** • the Gunditjmara people (in 2007) • the Gunaikurnai people (in 2010) • the Gunditjmara and the Eastern Maar people (in 2011) • the Eastern Maar people (in 2023) **Two other active claims exist where there is currently no registration or determination, including:** • the Boonwurrung People (2021) • the Wadawurrung People (2022) Within the EMBA in South Australia, a registered claim exists from 2017 over the south east coast (19,681 km^2) of South Australia near the Victorian border by the First Nations of the South East. There is currently no determination registered over the area of the claim in the National Native Title Register. Within the EMBA in New South Wales, a registered claim exists from 2017 over the south coast land and waters (16,808 km^2) by the South Coast people. There is currently no determination registered over the area of the claim in the National Native Title Register.

Summary of Environmental Assessment

The Environment Regulations require that the EP details and evaluates the environmental impacts and risks for the activity and demonstrates that the impacts and risks of the activity will be reduced to as low as reasonably practicable and acceptable levels, providing details of the control measures to be used to achieve this.

The ConocoPhillips Australia environmental impact and risk assessment methodology provides a structured and comprehensive process for identifying, assessing and managing environmental impacts and risks. The methodology aligns with ConocoPhillips Australia's Risk Management Procedure which is part of ConocoPhillips Australia's Health, Safety and Environmental Management System (HSEMS). The methodology meets the requirements of the Environment Regulations and is consistent with:

- Australian and New Zealand Standard for Risk Management (AS/NZS ISO 31000:2018, Risk Management – Principles and Guidelines)
- AS/NZS ISO 14001:2016: Environmental Management System (EMS) – Requirements with guidance for use
- UK offshore oil and gas industry guidance on risk-related decision making (Oil & Gas UK, formerly UKOOA, 2014)
- NOPSEMAs Environment Plan Decision Making Guideline (N-04750-GL1721, December 2022), and
- NOPSEMAs Environment Plan Content Requirements Guidance Note (N-04750-GN1344, September 2020).

Environmental aspects are an element of an activity that interacts or can interact with the environment. Environmental aspects can have a direct impact on the environment, contribute only partially or indirectly to a larger environmental change or create a risk to one or more environmental receptors. Aspects can be planned (inherent part of the activity e.g., light) or unplanned (not part of the activity e.g., spills).

A summary of the planned and unplanned aspects identified for the Otway Exploration Drilling Program, and the determination of control measures, is provided below.

Environmental Impacts from Planned Aspects

The assessment of planned aspects has identified the following key topics for assessment:

- Interaction with Other Marine and Coastal Users
- Light Emissions
- Noise Emissions
- Seabed Disturbance
- Air Emissions
- Discharges

ConocoPhillips Australia has undertaken consultation during the preparation of the Otway Exploration Drilling Program EP to inform its understanding of relevant environmental values and sensitivities and to support the assessment of environmental impacts, risks and control measures.

Interference with Other Marine and Coastal Users

Other marine and coastal users, such as commercial and recreational shipping and fishing vessels, may be operating within the operational area during the activity. The movement of vessels or the presence of the MODU could interfere with these other users.

What are the possible impacts?

Exclusion zones will be established by ConocoPhillips Australia to support safe marine operations, minimising the risk of interactions with other marine users. These include a 500 m radius Safe Navigation Area (SNA) around seabed survey vessel(s) and any towed equipment, and a 500 m radius Petroleum Safety Zone (PSZ) and a 2 km radius cautionary zone around the MODU. Access to these areas by other marine users will be limited. Marine users will be notified e.g. notice to mariners, prior to the exclusion zones being enacted and again once the short-term temporary seabed survey and exploration drilling activities are completed and the exclusion zones are no longer in effect.

ConocoPhillips Australia has undertaken to assess the impacts associated with the visibility of the rig from the coast. Visibility modelling predicts that the tip of the derrick on the MODU may be visible from the Victorian or King Island coastline. Additionally, the main deck of the MODU may be visible from some locations along the coast when operating in the closest parts of the operational areas on a clear day. Impacts to visual amenity will be short-term, temporary and fully recoverable once the activities are completed.

How will ConocoPhillips Australia manage impacts?

ConocoPhillips Australia will implement a Marine and Coastal Users Consultation and Communication Plan for the activity to ensure that the outcomes of the NOPSEMA assessment are communicated to marine and coastal users and that during the activity relevant persons are informed about the progress of the activity and any changes. Specific notifications will be provided prior to vessel/MODU arrival in the operational areas and on departure, so the maritime industry is aware of petroleum activities.

A Safe Operations Guide will be developed and implemented detailing pre-activity and on-water communication processes, including SMS messages and radio communications on Channel 16.

In addition, an Adjustment Protocol will be negotiated with peak fishing associations to ensure that commercial fishers are not economically disadvantaged as a result of the activity. The protocol will also be developed in consideration of feedback from consultation with marine users who identified they could be potentially impacted.

These measures are consistent with legislative requirements, international standards and good practice guidelines, and reduce the consequences associated with interference to minor levels that are ALARP and acceptable.

Seabed Disturbance

Seabed disturbance occurs when activities interact with the seabed in some way, for example, when anchors are placed on the seabed or when sediment is collected as part of the seabed survey. The extent of direct seabed disturbance is predicted to be 0.006 km^2 per well, or 0.037 km^2 in total, located entirely within the operational areas.

What are the possible impacts?

The seabed within the operational areas is a mixture of unconsolidated calcareous ooze, calcareous sand and silt and a mixture of mud and sand with some rocky reefs. The diversity of species (such as invertebrates) in these areas is relatively high, but with patchy distribution and little evidence of distinct biogeographic regions. Extensive areas of rocky reefs or outcrops (where sponges, coral and more diverse fauna may be present) are unlikely to be present in the operational areas.

When the seabed is disturbed, e.g. during the placement of anchors, soft sediments can be suspended into the water column, resulting in a decrease in water quality or light penetration near the seabed. Given the hydrodynamics in open ocean areas, the area of decreased water quality is expected to be localised and temporary, as sediments settle out of the water column relatively quickly.

Following the removal of anchors and other equipment on the seabed, disturbed areas are expected to recolonise within weeks to a few months, and impacts are not predicted to be long-lasting.

If drilling were to occur within the multiple use zone of the Zeehan Marine Park, the potential impact area (0.006 km^2 at each well) is small compared to the size of the AMP (19,897 km^2). Considering impacts to ecological receptors are localised, short-term and recoverable, no changes are predicted to the ecosystems, habitats, communities or sea-floor features which represent the conservation values of this Marine Park.

Commercially important seabed species, including giant crab and southern rock lobster, are mobile and are generally less vulnerable than sessile species to sedimentation, as they are able to move to areas with less sediment accumulation or by more efficiently physically removing particles. Due to the small area of seabed which may be disturbed within the wider extent of available fishing grounds, and the short duration of the activity, impacts to commercial benthic species are predicted to be localised and insignificant at a population level.

Disturbance of the seabed also has the potential to interfere with cultural heritage, being both maritime archaeology and First Nations values and sensitivities.

How will ConocoPhillips Australia manage the impacts?

Seabed surveys will be undertaken prior to finalising the MODU position and location of mooring equipment, and seabed equipment. Seabed relief and sensitive seabed features will inform the well location to minimise impacts to the benthic environment and sensitive receptors. At the end of drilling at each well, all equipment on the seafloor will be removed.

ConocoPhillips Australia will support the development of a Cultural Heritage Protection Program (CM05) in consultation with First Nations cultural heritage advisors and indigenous communities with Sea Country within or adjacent to the operational areas, to protect cultural values and sensitivities. This program includes the analysis of seabed survey data by suitably qualified persons to support the identification of priorities and measures to protect both maritime archaeology and First Nations cultural heritage values and sensitivities. This Program will provide benefits across all aspects of the activity, not just related to seabed disturbance.

These measures are consistent with legislative requirements, industry standards and good practice guidelines, and reduce the consequences associated with seabed disturbance to minor levels that are ALARP and acceptable.

Additionally, sediment samples collected to validate seabed survey data will be retained for onshore analysis, contributing to knowledge of the benthic environment in the Otway Basin.

Light Emissions

Lighting is required on vessels and the MODU for operational and navigation safety, and is mandatory under maritime regulations. In addition, well testing may be conducted should a gas discovery occur. Well testing involves short-term flaring, up to a maximum of 120 hours per well over intermittent periods, which would emit additional light.

The National Light Pollution Guidelines for Wildlife (CoA 2023) recommends that potential impacts to sensitive wildlife are assessed within 20 km of a vessel-based light source. ConocoPhillips Australia undertook light modelling for flaring, which conservatively estimated that a change in ambient light may be detectable out to 50 km.

What are the possible impacts?

Marine turtles, seabirds and migratory shorebirds and some socio-economic receptors and cultural features may be sensitive to additional light in the environment.

Marine fauna, particularly seabirds and shorebirds, may be attracted to light and can become disorientated resulting in more time at sea, interference with navigation and stranding or grounding. Birds that are most sensitive to light within 20-50 km of the operational areas include the nocturnally foraging common-diving petrel and the Critically Endangered orange-bellied parrot which may overfly an area of increased ambient light on migration. The National Recovery Plan for the Orange-bellied Parrot (2016) identifies that the behaviour of this species may be modified by the presence of barriers such as wind turbines and illuminated boats, with the impacts of barriers greatest where they occur on migration routes, though there is little more than anecdotal evidence to support this. During the exploration program, illuminated vessels and the MODU will not be conducting petroleum activities in areas that overlap the migration routes. Impacts associated with flaring, which will not occur within the migration route but rather may change ambient light in the area, will be temporary and of short duration (120 hours per well). Therefore, a change in ambient light is unlikely to cause behavioural changes or result in injury/mortality to the orange-bellied parrot.

During day-to-day operations, light from the vessels and the MODU will be indistinguishable from other marine traffic when viewed from the coast. When flaring is taking place, light levels viewed from the closest possible point on the coast will be equivalent to a quarter moon night sky.

How will ConocoPhillips Australia manage the impacts?

ConocoPhillips Australia will develop and implement a Light Management Plan in line with the National Light Pollution Guidelines for Wildlife, for the exploration program. Once safety navigational lighting requirements are met, the Light Management Plan will detail additional mitigations to ensure artificial lighting is reduced to minimum levels based on the information in the Seabird Light Mitigation Toolbox wherever practicable, whilst maintaining safe working conditions and navigation. Specifically, outwards facing lighting will be reduced to minimum levels, directions will be issued to MODU and vessel personnel to minimise non-essential lights (e.g. close blinds, turn lights off, etc.), and a rescue program will be implemented for grounded birds.

If flaring is needed, it will be limited to a maximum of 120 hours per well, and initial flaring events will commence during daylight hours. The timing of subsequent flaring events at each well will be determined by operational safety and testing requirements.

These measures are consistent with legislative requirements, international standards and good practice guidelines, and reduce the consequences associated with light emissions to minor levels that are ALARP and acceptable.

Air Emissions

Air emissions arise from the combustion of fuel to operate vessels, helicopters, the MODU and onboard equipment, and from flaring and venting. Air emissions include Greenhouse Gas (GHG) emissions (Scope 1 GHG emissions emitted during the exploration program) and non-GHG emissions. Air emissions can change localised air quality and contribute to national GHG emissions.

What are the possible impacts?

Changes to air quality will be rapidly dispersed and diluted by offshore winds to below measurable levels, in close proximity to emissions sources. These emissions are not predicted to impact on the health or amenity of the nearest human coastal settlements, nor affect seabirds overflying the activity.

Although emissions of GHGs such as carbon dioxide, methane and nitrous oxide during the activity will add to GHGs in the atmosphere, they are very small when compared to national emissions, insignificant on a global scale, and are not predicted to have determinable impacts.

How will ConocoPhillips Australia manage the impacts?

Air emissions will be limited through measures to ensure vessels, the MODU, and equipment are well maintained and optimised. Flaring will be limited to a maximum of 120 hours per well and the flaring system selected will aid in the reduction of emissions; Volumes flared will be recorded and combustion emissions calculated and reported, as required by relevant regulations.

These measures are consistent with legislative requirements, international standards and good practice guidelines, and reduce the consequences associated with air emissions to minor levels that are ALARP and acceptable.

Underwater Sound Emissions

Sound emissions can be categorised as:

- Non-impulsive, or 'continuous' sound which is monotonous in nature and typically present while that activity is undertaken. Non-impulsive sound will be generated by propellers, thrusters and equipment operation on the vessels and MODU, and by helicopters. These noises are typical of other marine activities in the region such as commercial shipping and fishing.
- Impulsive sound varies in tone or frequency, often rapidly. Impulsive sound sources from the activity include geophysical survey equipment, and short-term well evaluation techniques.

Modelling for a range of impulsive and non-impulsive sound sources was conducted by international experts to inform the assessment of impacts to the marine environment associated with the activity.

What are the possible impacts?

Noise in the marine environment can lead to permanent or temporary hearing impairment, and can behaviourally disturb sensitive fauna, with some of these species having identified cultural significance. Research into noise thresholds, which cause different impacts for different receptor groups, combined with the modelling undertaken for the activity, have been used to inform the assessment of impacts.

Fish and Marine Invertebrates

Non-impulsive sound is predicted to reach the levels associated with effects for some fish species within 10s of metres of sound sources. For effect thresholds to be exceeded, fish would have to remain continuously at those distances for either 12 hours (temporary injury threshold) or 48 hours (recoverable injury threshold). Although there are no threshold criteria relevant to marine invertebrates for non-impulsive sound, there is the potential for sub-lethal impacts.

Fish and benthic invertebrates may be sensitive to impulsive sound during well testing, however, the short duration (maximum 20 hours per well), along with the likelihood of negative affect being restricted to within a few hundred metres of the source, reduce the potential for impacts to these species. Further, fish are expected to exhibit avoidance behaviour and swim away when sound reaches levels which may cause physiological effects.

Marine Turtles

Marine turtles are expected to be transient in the area due to the absence of biologically important behaviours or critical habitat. Consequently, permanent and temporary injuries, which occur as a result of prolonged exposure, are not predicted.

Birds

Most seabirds, including penguins, are generally shallow divers and utilise surface waters where the acoustic signals destructively interfere with the sea surface, resulting in much lower sound exposure compared with deeper waters. Consequently, birds are not expected to be affected by above or below water noise.

Marine Mammals

Marine mammals are sensitive to changes in sound in the marine environment as they use sound for important behaviours such as communicating and echolocation. Modelling recognises the different hearing levels or thresholds of different species and groups, relevant to their hearing ranges, to help inform the assessment process. The most sensitive species are low-frequency hearing cetaceans, such as the Endangered southern right whale and blue whale. For these low-frequency species, injury as a result of underwater sound is not predicted to occur; however, they could be behaviourally disturbed. ConocoPhillips Australia has undertaken detailed assessment of the largest extent of possible impacts over biologically important areas to ensure that underwater sound emissions do not impact on the recovery of blue whales and southern right whales, or on biologically important behaviours of other species. These measures will be implemented and evaluated for effectiveness throughout the exploration program.

How will ConocoPhillips Australia manage the impacts?

ConocoPhillips Australia has developed and will implement a Whale Management Plan. Specific controls include:

- Dedicated marine mammal observers, who will monitor for marine mammals, report detections and provide oversight of the implementation of adaptive management measures.
- A decision making framework to support the commencement of specific activities based on detections during daylight and pre-activity surveys, including night-time and low visibility controls.
- Safe operating distances between vessels and marine mammals, and
- Safe points for operational activities.

Further, the implementation of the Cultural Heritage Protection Program (CM05) may support the development of additional mitigation strategies for culturally important species that may be sensitive to underwater sound.

The measures detailed in the Whale Management Plan are consistent with conservation and recovery plans and conservation advice for potentially affected species and good practice guidelines, and reduce the consequences associated with underwater sound to minor levels that are ALARP and acceptable.

Discharges

Activities conducted as part of the Otway Exploration Drilling Program will result in discharges to the marine environment including:

- Drilling discharges, such as drill cuttings and fluids, cements, and other minor discharges such as hydraulic fluid.
- Operational discharges from vessels and the MODU (such as cooling water, brine, putrescible waste, grey water and sewage), with small volumes released to surface water, as done by most commercial offshore vessels.

What are the possible impacts?

The release of drilling discharges to the seabed and sea surface will result in localised and temporary changes in water quality, sediment quality and habitat composition. Drilling discharges are of low toxicity and will quickly dissipate in the water column or disperse on the seafloor. Consequently, impacts are expected to be short-term, localised to smaller areas within 2 km of each well, and recoverable.

Operational discharges will cause localised and temporary changes in water quality, with extensive research showing impacts are limited to 500 m from the discharge source. Marine fauna and plankton within 500 m of the MODU or vessels could experience a change in behaviour e.g. increased foraging due to elevated nutrient levels, however, the small volumes and dynamic nature of the marine environment means any impacts will be short-term, localised and recoverable.

Discharges are expected to be dispersed and diluted rapidly within the offshore waters of the Otway Basin.

How will ConocoPhillips Australia manage the impacts?

Discharges to offshore waters are to be managed to acceptable levels as regulated by maritime laws and conventions, such as MARPOL and relevant Marine Orders.

ConocoPhillips Australia will implement a chemical selections procedure which requires that all chemicals used that may be discharged to sea are environmentally acceptable by national and international standards, based on their toxicity, biodegradation and potential to bioaccumulate.

These measures are consistent with legislative requirements, international standards and good practice guidelines, and reduce the consequences associated with planned discharges to minor levels that are as low as reasonably practicable and acceptable.

Environmental Risks from Unplanned Events

In the course of preparing the EP, ConocoPhillips Australia identified possible unplanned events which could occur during the activity. These include:

- Loss of material or waste overboard
- Interaction with marine fauna
- Invasive Marine Species (IMS)
- Accidental release of hydrocarbons

Loss of Materials or Waste Overboard

While undertaking the activity there is a remote likelihood that small quantities of waste or other materials may be lost to the marine environment, e.g. litter blowing over the side of a vessel, solid objects dropped during transfer operations and floating or sinking to the seafloor, or small uncontained spills. These types of events have been heard of within the industry and are known to occur during other offshore marine activities such as shipping and commercial fishing.

What are the possible impacts?

Wastes and materials lost overboard could result in a change in water quality, a change in benthic habitat, present a risk to marine fauna of entanglement or ingestion, or create a navigational hazard to other vessels.

How will ConocoPhillips Australia manage the impacts?

Vessel management systems addressing dropped objects, waste storage, and chemical selection, handling and storage are well practised and well understood. Processes will be in place to ensure standards for carriage, stowage and securing of cargos and waste management are met and support vessels can undertake to retrieve objects where safe to do so.

These measures are consistent with legislative requirements, international standards and good practice guidelines, as well as relevant conservation management and recovery plans and conservation advice, reducing the residual risk to low levels that are ALARP and acceptable.

Interactions with Marine Fauna

Vessels, the rig and aircraft may have limited manoeuvrability during particular activities. During these periods there is a remote likelihood of interactions with marine fauna such as vessel collision and aircraft collision. These types of interactions have been heard of within the industry and are known to occur during other offshore marine activities such as shipping and commercial fishing.

What are the possible impacts?

Large or slow-moving marine fauna that commonly dwell near the surface and frequent areas associated with a high level of vessel traffic are the most susceptible to vessel collision. In the operational areas, this includes threatened and migratory cetaceans and marine turtles. Additionally, seabirds are at risk of colliding with surface infrastructure, for example the derrick on the MODU, or with aircraft. Some of these species have identified cultural significance.

The risk of collision between fauna and a vessel depends on the vessel speed, with fast moving vessels less likely to be able to take evasive action and more likely to have serious consequences. When vessels are stationary or slow moving, such as the vessels undertaking activities within the operational areas, the risk of collision is extremely low. Birds have been known to collide with surface infrastructure and be attracted and/or disoriented by lights.

How will ConocoPhillips Australia manage the impacts?

ConocoPhillips Australia will adhere to legislative requirements regarding vessel distances from fauna, as described in the EPBC Regulations (Part 8 Division 8.1 interacting with cetaceans) and will implement speed restrictions and an increased caution zone of 500 m between whales and vessels, to ensure cetaceans are not harmed during offshore activities. The ConocoPhillips Australia Whale Management Plan includes measures to limit impacts to marine mammals and the presence of marine mammal observers on vessels will provide for early detection of cetaceans in the area.

The ConocoPhillips Australia Light Management Plan will include measures to minimise light impacts, and vessel and MODU crew will be provided guidance for responding to and reporting grounded birds. Further, the implementation of the Cultural Heritage Protection Program (CM05) may support the development of additional mitigation strategies for culturally important species that may be at risk of vessel and aircraft strike.

These measures are consistent with maritime legislation, conservation and recovery plans and conservation advice for potentially affected species, and reduce the risk of interactions with marine fauna to low levels that are ALARP and acceptable.

Introduction and Establishment of Invasive Marine Species

Invasive Marine Species (IMS), or marine pests, include marine plants or animals that have been introduced to an to area where they do not normally occur, and become established and spread. These species have the potential harm Australia's marine environment and dependent industries.

The introduction and translocation of IMS within Australian waters may occur as a result of ballast water discharges or from biofouling on vessels and submerged equipment.

What are the possible impacts?

The establishment of IMS in the Otway Basin could affect marine invertebrates and associated benthic habitats, protected marine areas and commercial fisheries. Successful establishment in a new environment depends on water currents, upwellings, habitat type, water depth, wave exposure, water temperature, salinity and the distance from the coast; with most species preferring shallow disturbed waters, such as those found in ports, and hard rocky substrates. The benthic environment within the operational areas does not represent favourable habitat given the deep, well mixed waters away from coastal habitats.

How will ConocoPhillips Australia manage the impacts?

Vessel management systems addressing IMS risks are well practiced and well understood. ConocoPhillips Australia's marine assurance process and IMS risk assessment process will ensure that vessel contractors adhere to maritime legislation and national and international requirements for the management of ballast water and biofouling, reducing the risk of introduction, establishment and spread of IMS to low levels that are as low as reasonably practicable and acceptable.

Accidental Release of Hydrocarbons

The OPGGS Act requires titleholders to prevent the escape of petroleum to the environment from their activities. Failure to prevent the escape of petroleum is an offence. Although extremely unlikely to occur, all offshore operations do carry a risk of an unplanned hydrocarbon release. Detailed risk assessment and response planning is required prior to activities occurring.

As described earlier in this EP summary (section: Environment That May Be Affected), modelling of worst-case credible spill scenarios has been conducted to provide an informed estimate of where hydrocarbons might go if nothing is done to respond, and supports the prediction of possible effects. Hundreds of hypothetical individual spills (1400 in this case) are simulated for each worst-case scenario to show where hydrocarbons from a spill could go under different metocean conditions (such as currents, wind, waves and temperature).

For the Otway Exploration Drilling Program, the worst-case spill scenarios have been defined as:

- A marine diesel spill from a vessel collision or during refuelling; and
- A Loss of Well Control (LOWC), assuming the failure of multiple control systems.

Other minor spills could occur from hose failures, incorrect handling procedures, or mechanical failures, etc.

ConocoPhillips Australia has also prepared a detailed information sheet on Unplanned Hydrocarbon Releases, available via the Resource Library on the online consultation hub. Visit the online consultation hub by scanning the QR Code.

What are the possible impacts?

Hydrocarbons in the marine environment will affect water quality, which can have knock-on effects for all marine fauna and flora. These impacts can be due to ingestion of contaminated water, or from contact with hydrocarbons i.e. coating skin or feathers. Wider ecosystem impacts can occur if the spill is large or affects a sensitive population, habitat or location.

If hydrocarbons reach coastal waters, or are washed up onto the shoreline, they could affect coastal habitats and require remediation.

Other marine and coastal users, such as shipping, fishing and tourism, could be impacted by a hydrocarbon release when exclusions are put in place during response efforts. Fisheries can also be affected by tainting of fish stocks in extreme circumstances.

How will ConocoPhillips Australia manage the impacts?

ConocoPhillips Australia will ensure that all contractors adhere to national and international requirements regarding spill prevention and response, including maintaining response plans, equipment and training.

Maritime notifications will ensure marine users are aware of the presence of the exploration program, including any operational exclusion zones, reducing the risk of collision. The rig and vessels will have automatic identification systems and will meet navigational lighting requirements to support detection at sea, and support vessels will establish communications with nearby vessels.

Operational and preventative maintenance procedures are well practiced and well understood and minimise the likelihood of spills occurring. The well design and delivery process is conducted in accordance with international, national, industry and corporate standards; and processes and equipment that support well integrity are monitored to ensure effectiveness throughout the activity.

ConocoPhillips Australia has developed an Oil Pollution Emergency Plan for the Otway Exploration Drilling Program in consultation with state control agencies, and has prepared an Operational and Scientific Monitoring Program (OSMP) to inform initial response activities and monitor the environment through to recovery. In the highly unlikely event of a spill, the response, including implementation of these plans, will include integration with local, national and international response organisations to mobilise resources, including experts and specialist equipment.

The implementation of the Cultural Heritage Protection Program (CM05) may support the development of additional mitigation strategies for culturally important species that may be at risk in the extremely unlikely event of a spill.

These measures are consistent with legislative, international and national standards and good practice guidelines, and reduce the risks associated with hydrocarbons releases to medium levels that are ALARP and acceptable.

Implementation

The ConocoPhillips Australia Health, Safety and Environmental Management System (HSEMS) includes specific measures that will be used to ensure that, for the duration of the activity:

- The environmental impacts and risks of the activity continue to be identified and reduced to a level that is as low as reasonably practicable (ALARP), and
- Control measures detailed in the EP are effective in reducing the environmental impacts and risks of the activity to ALARP and acceptable levels, and
- Environmental performance outcomes and standards set out in the EP are being met.

Consultation and Next Steps

ConocoPhillips Australia formally commenced consultation for the Otway Exploration Drilling Program in February 2023 to support the preparation of the EP. ConocoPhillips Australia has carried out a range of activities to:

- Identify relevant persons and raise awareness of the proposed Otway Exploration Drilling Program to support the self-identification of relevant persons.
- Provide information about the activity and its potential impacts and risks, so individuals and organisations can determine if they have functions, interests or activities that may be affected by the proposed activity, and wish to be consulted as a relevant person.
- Provide relevant persons with sufficient information and reasonable time, so they can make an informed assessment of the possible consequences of the proposed activity on their functions, interests and activities.
- Receive and respond to feedback, including objections and claims.
- Make appropriate changes in response to objections and claims, appropriate, to improve the environmental management of the activity..

ConocoPhillips Australia also made the draft EP chapters available to support consultation and the identification of further relevant persons, and so that relevant persons could provide further feedback to inform the preparation of the EP.

Consultation in the preparation of the EP was completed in October 2023, which enabled ConocoPhillips Australia to consolidate the valuable information provided by relevant persons and ensure it was properly reflected in the EP, prior to submission to NOPSEMA for public comment. ConocoPhillips Australia will continue to communicate with relevant persons throughout the public comment process. Once the EP is accepted, ongoing consultation procedures are in place, outlined in the EP, to ensure relevant persons remain up to date and informed throughout the life of the activity.

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ConocoPhillips

From: Otway <Otway@conocophillips.com>
Sent: Friday, November 25, 2022 8:30 AM
To: Otway <Otway@conocophillips.com>
Subject: UPDATE: ConocoPhillips Australia Otway Exploration Activities

ConocoPhillips Australia Otway Exploration Activities

25 November 2022

We'd like to provide you with an update on our exploration plans in the offshore Otway Basin.

The purpose of ConocoPhillips Australia's exploration activities is to identify gas reserves to supply into the domestic market and contribute to Australia's energy security.

In 2021 we completed a marine seismic survey over our permit T/49P. We are currently processing the data we obtained which will help inform us of the location of potential gas reserves within that permit.

This year we agreed to acquire an 80 percent interest in permit VIC/P79 which is located northwest of T/49P.

As part of Government requirements for holding exploration permits, we will be progressing plans to drill exploration wells in both of these permit areas.

To be able to do this, we will need to undertake consultation and prepare an Environment Plan (EP), which is then submitted to the offshore regulator (NOPSEMA) for public comment and assessment. No exploration activity can take place without an accepted EP in place.

We will shortly be starting consultation on this work, and we look forward to engaging with you to better understand your interests, views and potential impacts.

Have we missed anyone? If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

E: otway@conocophillips.com

T: 07 3182 7122

M: PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

From: Otway <Otway@conocophillips.com>
Sent: Thursday, 11 May 2023 10:38 AM
Subject: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
Attachments: Project Update MAY23 ABU2 000 EX R01 D 00011.pdf

Good morning,

Please find attached the ConocoPhillips Australia Otway Exploration Drilling Program Project Update. This information sheet summarises the next phase of our Environment Plan development and consultation, where we will be establishing the context of our proposed activity.

We have created an online mapping tool where individuals, organisations and associations can share feedback about locations of environmental values and sensitivities. To view this, visit our consultation hub.

We are also hosting a webinar on Tuesday 23 May, 5-6pm AEST, register to attend via our consultation hub.

If you have any questions or require further information, please don't hesitate to contact us:
otway@conocophillips.com or (07) 3182 7122
Warm regards

ConocoPhillips Australia Community Team

Otway Exploration Drilling Program

ConocoPhillips Australia

Community Information Sessions

ConocoPhillips Australia will be hosting information sessions in Victoria to provide an update on the progress of the Environment Plan for the Otway Exploration Drilling Program, which will include information on environmental impacts and risks associated with the proposed activity.

Warrnambool - Monday 29 May, 6-8pm
Archie Graham Community Centre
118 Timor Street, Warrnambool

Port Fairy - Tuesday 30 May, 6-8pm
Star of the West Hotel
76 Sackville Street, Port Fairy

Portland - Wednesday 31 May, 6-8pm
Portland Yacht Club
Lee Breakwater Road, Portland

Please note sessions in other Victorian locations will be communicated at a later date.

Identifying Environmental Values and Sensitivities

To support our understanding of the marine environment of the offshore Otway Basin, ConocoPhillips Australia is inviting individuals, organisations and associations to provide additional context and feedback on our proposed activity through an online collaborative mapping process.

Visit the consultation hub and use the interactive map to identify (pin) locations of interest or concern and provide additional information or comment on existing pins.

Environmental values and sensitivities can be physical, ecological, socio-economic and/or cultural.

Discover our Map

Don't forget to take the consultation survey to let us know if you'd like to be consulted as a relevant person as we continue to develop the Environment Plan.

Take the Survey

Can't get to an information session? Register for our online webinar series via our consultation hub.

Register for Webinars

Have we missed anyone?

If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
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From: Otway
Sent: Wednesday, 17 May 2023 12:11 PM
Subject: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
Attachments: Project Update MAY23 ABU2 000 EX R01 D 00011.pdf

Hello,

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otway@conocophillips.com or (07) 3182 7122

Warm regards

ConocoPhillips Australia Community Team

Otway Exploration Drilling Program

ConocoPhillips Australia

Webinar Details

Please find below the log-in details for the ConocoPhillips Australia Otway Exploration Drilling Program Webinar.

Date: Tuesday 23 May 2023
Time: 5-6pm AEST

Can't make the webinar? A recording will be loaded to the consultation hub after the event.

Teams Meeting Details

Join on your computer, mobile app or room device.
Click here to join the meeting

Meeting ID: 274 235 975 578
Passcode: a8rinD
Download Teams | Join on the web

Additional Meeting Information: Participants will be muted for the duration of the presentation and able to ask questions through the Q&A chat function with questions grouped and answered at the end of the presentation.

Only individuals who have registered for webinars via the ConocoPhillips Australia Consultation Hub have received this invitation.

Recording Notice

This webinar will be recorded (video, audio and content). The recording may be used and distributed by ConocoPhillips Australia as part of its stakeholder engagement/consultation and associated purposes. By attending this session, you consent to being recorded. ConocoPhillips Australia collects and deals with personal information in accordance with our privacy policy,

available at https://www.conocophillips.com.au/privacy-policy/legal-privacy-australia/.

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Otway Exploration Drilling Program

ConocoPhillips Australia

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Time: 5-6pm AEST

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From: Otway <Otway@conocophillips.com>
Sent: Friday, 19 May 2023 7:52 AM
Subject: PROJECT UPDATE: ConocoPhillips Australia Otway Exploration Drilling Program
Attachments: Project Update MAY23 ABU2 000 EX R01 D 00011.pdf

Categories: Saved as PDF

Good morning,

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Warm regards

ConocoPhillips Australia Community Team

Otway Exploration Drilling Program

ConocoPhillips Australia

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Otway Exploration Drilling Program

ConocoPhillips Australia

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Otway Exploration Drilling Program

ConocoPhillips Australia

Project Update - June 2023

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than January 2024.

This information sheet summarises the next phase of Environment Plan development and consultation, where we will share our evaluations of environmental impacts and risks.

Key Information

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.

- A range of information sheets providing information on the evaluation of environmental impacts and risks has been developed to support consultation.
- ConocoPhillips Australia is now looking for feedback on these evaluations.
- Individuals, organisations and associations continue to be able to share feedback on locations with valuesand sensitivities through an online interactive map via the consultation hub.

How to Participate in the Regulatory Approvals Process

NOPSEMA has recently published a brochure with information for the community about consultation on offshore petroleum environment plans. The brochure has excellent information to help you or your organisation decide if you are a relevant person and can be found here. We strongly encourage those of you uncertain about whether you are a relevant person to consider this information.

If you believe you are a relevant person, we need to understand your activities or interests so that we can provide the right information to you. When engaging with our team we encourage you to be specific about how you might potentially be affected, so that we can properly consider how we might avoid or lessen those impacts or risks.

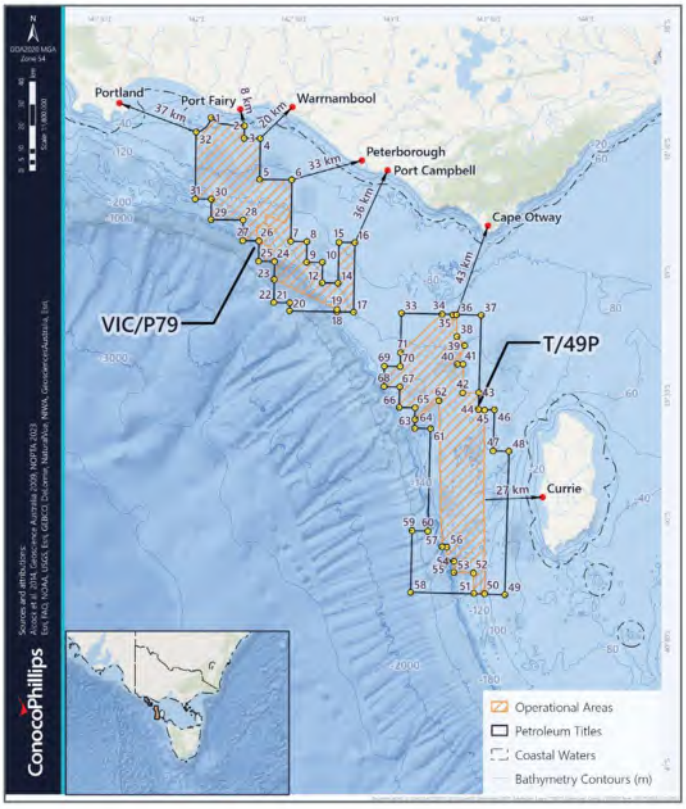
Upcoming Relevant Persons Information Sessions

Peterborough - Monday 19 June, 12-2 pm
Peterborough Community Hall
Macs Street, Peterborough

Port Campbell - Monday 19 June, 6-8pm
The Arts Space
50 Lord Street, Port Campbell

Apollo Bay - Tuesday 20 June, 6-8pm
Apollo Bay Bowls Club
6 Moore Street, Apollo Bay

Map of Permit and Operational Areas



Coordinates

Label	Latitude (DMS)	Longitude (DMS)
1	-38° 25'3.131"	142° 4'39.232"
2	-38° 26'53.079"	142° 15'4.888"
3	-38° 29'54.69"	142° 15'4.894"
4	-38° 29'54.686"	142° 20'4.889"
5	-38° 39'54.694"	142° 20'4.908"
6	-38° 39'54.686"	142° 30'4.896"
7	-38° 54'54.697"	142° 30'4.924"
8	-38° 54'54.693"	142° 35'4.918"
9	-38° 59'54.697"	142° 35'4.927"
10	-38° 59'54.693"	142° 40'4.921"
12	-39° 4'54.696"	142° 40'4.93"
14	-39° 4'54.692"	142° 45'4.924"
15	-38° 54'54.684"	142° 45'4.905"
16	-38° 54'54.679"	142° 50'4.899"
17	-39° 11'54.694"	142° 50'4.933"
18	-39° 11'54.697"	142° 44'55.692"
19	-39° 11'18.194"	142° 44'49.999"
20	-39° 11'54.708"	142° 30'4.951"
21	-39° 9'54.707"	142° 30'4.949"
22	-39° 9'54.71"	142° 25'4.953"
23	-39° 4'14.315"	142° 25'4.946"
24	-38° 59'54.705"	142° 25'4.938"
25	-38° 59'54.709"	142° 20'4.943"
26	-38° 54'54.706"	142° 20'4.935"
27	-38° 54'54.711"	142° 15'4.94"
28	-38° 49'54.706"	142° 15'4.932"
29	-38° 49'54.714"	142° 5'4.941"
30	-38° 44'54.71"	142° 5'4.932"
31	-38° 44'54.713"	142° 0'4.935"
32	-38° 28'31.755"	142° 0'4.902"
33	-39° 11'54.684"	143° 5'4.92"
34	-39° 11'56.572"	143° 17'52.217"
35	-39° 12'0.644"	143° 21'13.397"
36	-39° 12'1.03"	143° 22'24.381"
37	-39° 11'54.664"	143° 30'4.89"
38	-39° 17'17.3"	143° 22'41.264"
39	-39° 19'27.132"	143° 25'13.929"
40	-39° 24'0.371"	143° 23'0.444"
41	-39° 23'55.841"	143° 24'47.592"
42	-39° 30'55.847"	143° 24'57.913"
43	-39° 30'47.539"	143° 30'1.633"
44	-39° 34'54.676"	143° 30'4.921"
45	-39° 35'2.601"	143° 31'58.008"
46	-39° 34'54.673"	143° 35'4.905"
47	-39° 44'54.677"	143° 35'4.906"
48	-39° 44'54.675"	143° 40'4.882"
49	-40° 19'54.686"	143° 40'4.966"
50	-40° 19'47.484"	143° 33'41.868"
51	-40° 19'48.944"	143° 30'10.185"
52	-40° 14'49.127"	143° 29'56.024"
53	-40° 14'47.42"	143° 23'40.631"
54	-40° 12'5.982"	143° 23'34.74"
55	-40° 12'7.05"	143° 21'24.852"
56	-40° 8'39.816"	143° 21'12.975"
57	-40° 8'39.34"	143° 19'41.017"
58	-40° 19'54.707"	143° 10'4.993"
59	-40° 4'54.701"	143° 10'4.976"
60	-40° 4'54.697"	143° 15'4.971"
61	-39° 39'54.688"	143° 15'4.942"
62	-39° 33'0.546"	143° 17'31.908"
63	-39° 39'54.691"	143° 10'4.947"
64	-39° 37'47.264"	143° 10'8.348"
65	-39° 34'54.689"	143° 10'4.941"
66	-39° 34'54.692"	143° 5'4.946"
67	-39° 29'54.69"	143° 5'4.94"
68	-39° 29'54.694"	143° 0'4.945"
69	-39° 24'54.692"	143° 0'4.939"
70	-39° 24'54.689"	143° 5'4.934"
71	-39° 21'31.898"	143° 5'7.348"

Activity Overview

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as outlined below.

Parameter	Seabed Survey	Drilling
The broadest timeframe and spatial extent of the activity		
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells).
Spatial extent (within which activity can occur)	Operational Areas within T/49P and VIC/P79	Operational Areas within T/49P and VIC/P79
Narrowing the timing and location of the activities to the current best estimates		
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km² (Nine locations, each 6 x 6 km) within Operational Areas	75 km² (Six locations, each a 2 km radius Drilling Area) within Operational Areas

---

Commercial Fishing

The Otway Exploration Drilling Program is located within existing designated Commonwealth and State fisheries. Exploration drilling activities will occur in only very small areas within the fisheries area.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

A preliminary assessment of potential impacts and risks to the commercial fishing industry has identified that:

- Commercial fishers may be temporarily displaced from parts of the fisheries during exploration activities. Any displacement, i.e. through exclusion zones, would be communicated in a timely manner.

- Impacts to fish and marine invertebrates from planned activities are predicted to be short term, limited within 10sto 100s of metres and will not affect the long-term sustainability of fisheries.
- Potential risks from unplanned events have been identified and mitigation and management measures are being developed.

The full Commercial Fishing information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Marine Mammals

The EP will include an assessment of potential impacts and risks to marine mammals that might arise from the exploration program.

A preliminary assessment of impacts and risks to marine mammals has identified that:

- Several species of whales, dolphins and seals are typically found in the Otway Basin, many of which exhibit biologically important behaviours such as foraging.
- Marine mammals are particularly sensitive to the effects of underwater noise which has the potential to result inhearing impairment, stress and changes in behaviour at a range of effect distances.
- Where underwater noise has the potential to affect biologically important behaviours of threatened species,effective control measures will need to be in place.

Under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) all cetaceans (whales, dolphins and porpoises) are protected in Australian waters. There are several species of whales, dolphins and seals typically found in the Otway Basin, including species that are listed as nationally threatened under the EPBC Act including three endangered species (blue whale, southern right whale and Australian sea lion) and three vulnerable species (sei whale, fin whale and the southern elephant seal).

In addition, some species are known to undertake biologically important behaviours, such as foraging, calving and migration, within the Environmental Planning Area, including:

- Southern right whales
- Blue whales

- Humpback whales
- Sperm whales
- Indian Ocean/Indo-Pacific/spotted bottlenose dolphins, and
- Australian sea lion.

The full Marine Mammals information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Seabirds, Penguins and Marine Turtles

The EP will include an assessment of potential impacts and risks to seabirds, penguins and marine turtles that might arise from the exploration program.

A preliminary assessment of impacts and risks to seabirds, penguins and marine turtles has identified that:

- Seabirds, penguins and marine turtles are known to be sensitive to the effects of artificial light, particularly during critical behaviours such as breeding and foraging for seabirds and penguins, and nesting and hatching for marine turtles.
- Marine turtles are known to be sensitive to the effects of underwater noise. However, there are no biologically important behaviours or critical habitat essential to marine turtles identified in the area and their presence is expected to be of a transient nature.
- A number of seabird species utilise the offshore Otway Basin for biologically important behaviours such as foraging ,breeding and migration. Where underwater noise and artificial light have the potential to affect biologically important behaviours of threatened seabird species, effective control measures will need to be in place.

There are several species of seabirds that are known to be present in the Otway Basin. Some of these species such as albatross and petrels, and penguins, are listed as Matters of National Environmental Significance and are protected under the EPBC Act. Many seabird species utilise the area for biologically important behaviours such as foraging, breeding and migration.

The following species are known to occur within the Environmental Planning Area and exhibit one or more of these important behaviours:

Otway Exploration Drilling Program

ConocoPhillips Australia

Project Update - June 2023

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than January 2024.

This information sheet summarises the next phase of Environment Plan development and consultation, where we will share our evaluations of environmental impacts and risks.

Key Information

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.

- A range of information sheets providing information on the evaluation of environmental impacts and risks has been developed to support consultation.
- ConocoPhillips Australia is now looking for feedback on these evaluations.
- Individuals, organisations and associations continue to be able to share feedback on locations with valuesand sensitivities through an online interactive map via the consultation hub.

How to Participate in the Regulatory Approvals Process

NOPSEMA has recently published a brochure with information for the community about consultation on offshore petroleum environment plans. The brochure has excellent information to help you or your organisation decide if you are a relevant person and can be found here. We strongly encourage those of you uncertain about whether you are a relevant person to consider this information.

If you believe you are a relevant person, we need to understand your activities or interests so that we can provide the right information to you. When engaging with our team we encourage you to be specific about how you might potentially be affected, so that we can properly consider how we might avoid or lessen those impacts or risks.

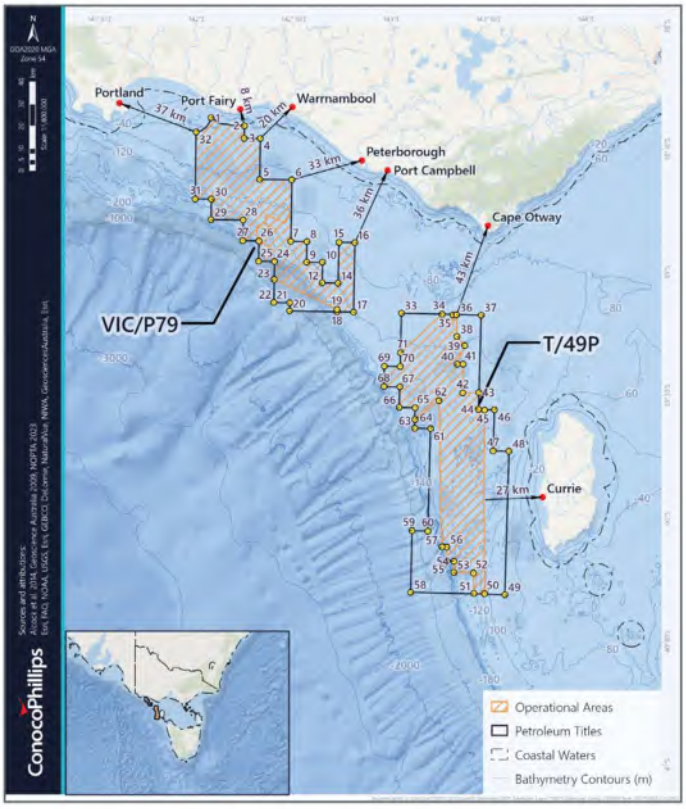
Upcoming Relevant Persons Information Sessions

Peterborough - Monday 19 June, 12-2 pm
Peterborough Community Hall
Macs Street, Peterborough

Port Campbell - Monday 19 June, 6-8pm
The Arts Space
50 Lord Street, Port Campbell

Apollo Bay - Tuesday 20 June, 6-8pm
Apollo Bay Bowls Club
6 Moore Street, Apollo Bay

Map of Permit and Operational Areas



Coordinates

Label	Latitude (DMS)	Longitude (DMS)
1	-38° 25'3.131"	142° 4'39.232"
2	-38° 26'53.079"	142° 15'4.888"
3	-38° 29'54.69"	142° 15'4.894"
4	-38° 29'54.686"	142° 20'4.889"
5	-38° 39'54.694"	142° 20'4.908"
6	-38° 39'54.686"	142° 30'4.896"
7	-38° 54'54.697"	142° 30'4.924"
8	-38° 54'54.693"	142° 35'4.918"
9	-38° 59'54.697"	142° 35'4.927"
10	-38° 59'54.693"	142° 40'4.921"
12	-39° 4'54.696"	142° 40'4.93"
14	-39° 4'54.692"	142° 45'4.924"
15	-38° 54'54.684"	142° 45'4.905"
16	-38° 54'54.679"	142° 50'4.899"
17	-39° 11'54.694"	142° 50'4.933"
18	-39° 11'54.697"	142° 44'55.692"
19	-39° 11'18.194"	142° 44'49.999"
20	-39° 11'54.708"	142° 30'4.951"
21	-39° 9'54.707"	142° 30'4.949"
22	-39° 9'54.71"	142° 25'4.953"
23	-39° 4'14.315"	142° 25'4.946"
24	-38° 59'54.705"	142° 25'4.938"
25	-38° 59'54.709"	142° 20'4.943"
26	-38° 54'54.706"	142° 20'4.935"
27	-38° 54'54.711"	142° 15'4.94"
28	-38° 49'54.706"	142° 15'4.932"
29	-38° 49'54.714"	142° 5'4.941"
30	-38° 44'54.71"	142° 5'4.932"
31	-38° 44'54.713"	142° 0'4.935"
32	-38° 28'31.755"	142° 0'4.902"
33	-39° 11'54.684"	143° 5'4.92"
34	-39° 11'56.572"	143° 17'52.217"
35	-39° 12'0.644"	143° 21'13.397"
36	-39° 12'1.03"	143° 22'24.381"
37	-39° 11'54.664"	143° 30'4.89"
38	-39° 17'17.3"	143° 22'41.264"
39	-39° 19'27.132"	143° 25'13.929"
40	-39° 24'0.371"	143° 23'0.444"
41	-39° 23'55.841"	143° 24'47.592"
42	-39° 30'55.847"	143° 24'57.913"
43	-39° 30'47.539"	143° 30'1.633"
44	-39° 34'54.676"	143° 30'4.921"
45	-39° 35'2.601"	143° 31'58.008"
46	-39° 34'54.673"	143° 35'4.905"
47	-39° 44'54.677"	143° 35'4.906"
48	-39° 44'54.675"	143° 40'4.882"
49	-40° 19'54.686"	143° 40'4.966"
50	-40° 19'47.484"	143° 33'41.868"
51	-40° 19'48.944"	143° 30'10.185"
52	-40° 14'49.127"	143° 29'56.024"
53	-40° 14'47.42"	143° 23'40.631"
54	-40° 12'5.982"	143° 23'34.74"
55	-40° 12'7.05"	143° 21'24.852"
56	-40° 8'39.816"	143° 21'12.975"
57	-40° 8'39.34"	143° 19'41.017"
58	-40° 19'54.707"	143° 10'4.993"
59	-40° 4'54.701"	143° 10'4.976"
60	-40° 4'54.697"	143° 15'4.971"
61	-39° 39'54.688"	143° 15'4.942"
62	-39° 33'0.546"	143° 17'31.908"
63	-39° 39'54.691"	143° 10'4.947"
64	-39° 37'47.264"	143° 10'8.348"
65	-39° 34'54.689"	143° 10'4.941"
66	-39° 34'54.692"	143° 5'4.946"
67	-39° 29'54.69"	143° 5'4.94"
68	-39° 29'54.694"	143° 0'4.945"
69	-39° 24'54.692"	143° 0'4.939"
70	-39° 24'54.689"	143° 5'4.934"
71	-39° 21'31.898"	143° 5'7.348"

Activity Overview

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian east coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as outlined below.

Parameter	Seabed Survey	Drilling
The broadest timeframe and spatial extent of the activity		
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells).
Spatial extent (within which activity can occur)	Operational Areas within T/49P and VIC/P79	Operational Areas within T/49P and VIC/P79
Narrowing the timing and location of the activities to the current best estimates		
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km² (Nine locations, each 6 x 6 km) within Operational Areas	75 km² (Six locations, each a 2 km radius Drilling Area) within Operational Areas

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Commercial Fishing

The Otway Exploration Drilling Program is located within existing designated Commonwealth and State fisheries. Exploration drilling activities will occur in only very small areas within the fisheries area.

Specific locations for seabed surveys and exploration drilling are yet to be confirmed. ConocoPhillips Australia has undertaken to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within broader operational areas within petroleum titles T/49P and VIC/P79. This ensures that the impacts and risks associated with all potential survey and drilling locations are assessed.

A preliminary assessment of potential impacts and risks to the commercial fishing industry has identified that:

- Commercial fishers may be temporarily displaced from parts of the fisheries during exploration activities. Any displacement, i.e. through exclusion zones, would be communicated in a timely manner.

- Impacts to fish and marine invertebrates from planned activities are predicted to be short term, limited within 10sto 100s of metres and will not affect the long-term sustainability of fisheries.
- Potential risks from unplanned events have been identified and mitigation and management measures are being developed.

The full Commercial Fishing information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Marine Mammals

The EP will include an assessment of potential impacts and risks to marine mammals that might arise from the exploration program.

A preliminary assessment of impacts and risks to marine mammals has identified that:

- Several species of whales, dolphins and seals are typically found in the Otway Basin, many of which exhibit biologically important behaviours such as foraging.
- Marine mammals are particularly sensitive to the effects of underwater noise which has the potential to result inhearing impairment, stress and changes in behaviour at a range of effect distances.
- Where underwater noise has the potential to affect biologically important behaviours of threatened species,effective control measures will need to be in place.

Under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) all cetaceans (whales, dolphins and porpoises) are protected in Australian waters. There are several species of whales, dolphins and seals typically found in the Otway Basin, including species that are listed as nationally threatened under the EPBC Act including three endangered species (blue whale, southern right whale and Australian sea lion) and three vulnerable species (sei whale, fin whale and the southern elephant seal).

In addition, some species are known to undertake biologically important behaviours, such as foraging, calving and migration, within the Environmental Planning Area, including:

- Southern right whales
- Blue whales

- Humpback whales
- Sperm whales
- Indian Ocean/Indo-Pacific/spotted bottlenose dolphins, and
- Australian sea lion.

The full Marine Mammals information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Seabirds, Penguins and Marine Turtles

The EP will include an assessment of potential impacts and risks to seabirds, penguins and marine turtles that might arise from the exploration program.

A preliminary assessment of impacts and risks to seabirds, penguins and marine turtles has identified that:

- Seabirds, penguins and marine turtles are known to be sensitive to the effects of artificial light, particularly during critical behaviours such as breeding and foraging for seabirds and penguins, and nesting and hatching for marine turtles.
- Marine turtles are known to be sensitive to the effects of underwater noise. However, there are no biologically important behaviours or critical habitat essential to marine turtles identified in the area and their presence is expected to be of a transient nature.
- A number of seabird species utilise the offshore Otway Basin for biologically important behaviours such as foraging ,breeding and migration. Where underwater noise and artificial light have the potential to affect biologically important behaviours of threatened seabird species, effective control measures will need to be in place.

There are several species of seabirds that are known to be present in the Otway Basin. Some of these species such as albatross and petrels, and penguins, are listed as Matters of National Environmental Significance and are protected under the EPBC Act. Many seabird species utilise the area for biologically important behaviours such as foraging, breeding and migration.

The following species are known to occur within the Environmental Planning Area and exhibit one or more of these important behaviours:

- Caspian tern
- Flesh-footed shearwater
- Little penguin
- Common-diving petrel
- Great-winged petrel
- Black-faced cormorant
- Greater crested tern

- Shy albatross
- Wedge-tailed shearwater
- White-fronted tern
- Pacific gull Soft-plumage petrel
- White-capped albatross
- Short-tailed shearwater
- Sooty shearwater
- White-faced storm petrel

Marine turtles are highly migratory and rely on both marine and terrestrial habitats. Although they may occur within the Environmental Planning Area, no habitat critical to their survival occurs in the waters off southern Australia and they are not known to exhibit any identified biologically important behaviours in this area. The closest biologically important areas for marine turtles are located south of Brisbane, QLD, and at Shark Bay, WA. Even though the presence of individuals within the area is expected to be of a transient nature, the potential impacts of the Otway Exploration Drilling Program on marine turtles has been assessed, as they are listed as Matters of National Environmental Significance and are protected under the EPBC Act.

The full Seabirds, Penguins and Marine Turtles information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Other Marine and Coastal Users

The Environment Plan will include an assessment of potential impacts and risks to other marine and coastal users that may arise from the exploration drilling program. This assessment has currently identified a number of marine and coastal users and values including recreation and tourism, commercial shipping, petroleum activities, renewable energy, defence activities, commercial fishing and cultural heritage.

The Otway Exploration Drilling Program may affect the activities of other marine and coastal users. For example, the physical presence of seabed survey vessels, the drilling rig and support vessels used for the activity, and the establishment of exclusion zones, may result in the displacement of other marine users engaging in activities such as commercial fishing.

Other short-term petroleum activities, for example, Vertical Seismic Profiling (VSP), have the potential to cause additional displacement if conducted in

close proximity to coastal areas, with sound emissions from VSP limited to a maximum of 20 hours per well.

Exclusion zones will be established to support safe operations. These zones allow for anchors, mooring chains and wire to be placed within the operational areas during the drilling program and prevent interactions or collisions with equipment or between vessels.

All potential drilling locations will be confined to water depths between 35 - 670 m. Recreational diving is likely to berestricted to coastal waters in depths <18 m but with more advanced diving possible to 40 m. Water depths withinthe operational areas are mostly beyond the recognised maximum recreational diving depth of 40 m, which is also anunlikely depth for recreational swimming. The sound generated by the activity has the potential to reach shallowerwaters if the drilling activity is in the northern portion of permit VIC/P79.

The full Other Marine and Coastal Users information sheet, including examples of mitigation measures is available in the document library of the consultation hub.

Emissions and Discharges

The EP will include a detailed assessment of potential impacts and risks arising from the air emissions and planned discharges associated with the Otway Exploration Drilling Program. Activities conducted as part of the Otway Exploration Drilling Program will result in emissions to the atmosphere, as well as discharges to the marine environment.

A preliminary assessment of potential impacts associated with emissions and discharges has identified:

- Air emissions from seabed survey vessels, the drilling rig and support vessels have the potential to result in localised changes in air quality.
- Planned discharges from survey vessels, the drilling rig and support vessels have the potential to result in localisedchanges to water quality that will quickly dissipate in the water column.
- Discharges from drilling operations, including drilling fluids and rock cuttings, cement, and small volumes of hydraulic fluid from testing

subsea equipment, have the potential to result in localised changes to water and sediment quality.

The full Emissions and Discharges information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Historical Military Ordnance Risk(Unexploded Ordnance)

The EP will include an assessment of impacts and risks associated with historical defence activities in the area, including the potential presence of unexploded ordnance.

Both permit areas overlap a historic air-to-air firing range which the government has classified as having a Slight Potential for unexploded ordinance (UXO) presence, with most ammunition used in this area being considered low risk.

There is no overlap between the permit areas and historic offshore UXO sea dumping sites. The closest sea dumpingsite to either permit area is located 21 km from T/49P.

The full Historical Military Ordnance Risk information sheet, including examples of mitigation measures, is available in the document library of the consultation hub.

Identifying Environmental Values and Sensitivities

To support our understanding of the marine environment of the offshore Otway Basin, ConocoPhillips Australia is inviting individuals, organisations and associations to provide additional context and feedback on our proposed activity through an online collaborative mapping process.

Visit the consultation hub and use the interactive map to identify (pin) locations of interest or concern and provide additional information or comment on existing pins.

Environmental values and sensitivities can be physical, ecological, socio-economic and/or cultural.

Discover our Map

Don't forget to take the consultation survey to let us know if you'd like to be consulted as a relevant person as we continue to develop the Environment Plan.

Take the Survey

Can't get to an information session? Register for our online webinar series via our consultation hub.

Register for Webinars

Have we missed anyone?

If there is someone you believe to be affected by the proposed activities, please have them contact us using the details below.

E: otway@conocophillips.com
T: 07 3182 7122
PO BOX 1243, MILTON, QLD, 4064
conocophillips.com.au

Otway Exploration Drilling Program

ConocoPhillips Australia

Relevant Persons Information Sessions

ConocoPhillips Australia will be hosting information sessions in Victoria to provide an update on the progress of the Environment Plan for the Otway Exploration Drilling Program, which will include information on environmental impacts and risks associated with the proposed activity.

Peterborough - Monday 19 June, 12-2pm
Peterborough Community Hall
Macs Street, Peterborough

Port Campbell - Monday 19 June, 6-8pm
The Arts Space
50 Lord Street, Port Campbell

Apollo Bay - Tuesday 20 June, 6-8pm
Apollo Bay Bowls Club
6 Moore Street, Apollo Bay

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Otway Exploration Drilling Program

ConocoPhillips Australia

Community Information Session

ConocoPhillips is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and will be hosting two community information sessions on King Island in July.

Residents and all relevant persons are encouraged to come along to a session to learn more about the progress of the environmental impact and risk assessments and the typical control measures that have been identified to support ongoing consultation. The content will focus on activities specific to King Island, with ample opportunity to ask questions and provide feedback.

Session 1
Thursday 13 July 2023
11am - 1pm
King Island Town Hall

Session 2
Thursday 13 July 2023
6 - 8pm
King Island Town Hall

Light refreshments will be provided.

Can't make either session? Register for the next webinar via the consultation hub.

For more information about this activity:
Visit the consultation hub.
E: otawy@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

Otway Exploration Drilling Program

ConocoPhillips Australia

Webinar Details

Please find below the log-in details for the ConocoPhillips Australia Otway Exploration Drilling Program Webinar.

Date: Wednesday 26 July 2023
Time: 5-6.30pm AEST

Can't make the webinar? A recording will be loaded to the consultation hub after the event.

Teams Meeting Details

Join on your computer, mobile app or room device.

Click here to join the meeting

Meeting ID: 235 181 419 425
Passcode: AhuHbt
Download Teams | Join on the web

Additional Meeting Information: Participants will be muted for the duration of the presentation and able to ask questions through the chat function with questions grouped and answered at the end of the presentation.

Only individuals who have registered for webinars via the ConocoPhillips Australia Consultation Hub have received this invitation.

Recording Notice

This webinar will be recorded (video, audio and content). The recording may be used and distributed by ConocoPhillips Australia as part of its stakeholder engagement/consultation and associated purposes. By attending this

session, you consent to being recorded. ConocoPhillips Australia collects and deals with personal information in accordance with our privacy policy, available at https://www.conocophillips.com.au/privacy-policy/legal-privacy-australia/.

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Otway Exploration Drilling Program

ConocoPhillips Australia

Consultation Extended

This email is to advise you that, based on feedback from consultation, ConocoPhillips Australia is extending the consultation period on the proposed Otway Exploration Drilling Program until 3 September 2023.

This ensures all relevant persons have a reasonable period of time to consider the information we have provided during the course of consultation and provide feedback to us on the potential impacts and risks of the activity on their functions, interests and activities.

Consultation and feedback with relevant persons, whose functions, interests or activities may be affected by the exploration program activities, is an important part of developing Environment Plans. More information on the Otway Exploration Drilling Program and how to provide feedback can be found on our consultation hub.

King regards,

ConocoPhillips Australia Community Team

Identifying Environmental Values and Sensitivities

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Otway Exploration Drilling Program

ConocoPhillips Australia

Project Update - August 2023

Click here to access the PDF version of this update.

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

About the Otway Exploration Drilling Program

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania.

ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek approval for this exploration drilling program to be undertaken. Drilling commencement is dependent on regulatory approval and rig availability. The initial activity will be a vessel-based seabed survey that will commence no earlier than April 2024.

This update summarises the next phase of Environment Plan development and consultation.

KEY INFORMATION:

- ConocoPhillips Australia is planning to undertake an exploration drilling program in the Otway Basin and is preparing an Environment Plan (EP) which will be submitted to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for public comment and assessment. Any decision to proceed to development will be dependent on a conducive investment environment.

- ConocoPhillips Australia has secured a harsh environment semi-submersible rig as part of a rig consortium. Drilling remains dependent on the EP being accepted by NOPSEMA.
- ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until 30 September 2023, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment.
- ConocoPhillips Australia is asking relevant persons to provide feedback, including objections or claims, about the potential impacts of the activity.
- Based on the (now identified) operational constraints of the drilling rig and ConocoPhillips Australia's ongoing assessment of seismic data, the operational areas of the proposed activity have been refined, resulting in an overall reduction in total area. As a result of this refinement, some operational areas now extend outside of the petroleum titles. Additional information on these changes, and a revised map with coordinates, are provided within this information sheet.

Changes made to the proposed activity

Operational Area: Based on operational constraints of the drilling rig and ConocoPhillips Australia's ongoing assessment of seismic data, the operational areas of the proposed activity have been refined, resulting in an overall reduction of total area. As a result of this refinement, some operational areas now extend past title permit boundaries.

Operational Areas represent the area within which petroleum activities can occur. Operational areas are located predominantly within the relevant petroleum titles (T/49P and VIC/P79) and have been selected based on similar constraints around rig operations and well design. Where operational areas extend outside of a petroleum title, ConocoPhillips Australia will apply for and secure an Access Authority (AA) from NOPTA, prior to the commencement of activities in these areas. Activities in these areas will be 'other than drilling a well' and may include the placement of anchors, the collection of geophysical and geotechnical data, and the operation of vessels.

Click here to see a map of how the operational areas have changed.

Design Envelope: The initial timing provided for the commencement of seabed surveys was 'no earlier than 1 January 2024'. This has now been

extended to ‘no earlier than 1 April 2024’. The term of the approval for these activities remains unchanged – at 31 December 2028, to allow for the drilling of a maximum of six exploration wells.

Consultation Extended

Based on relevant person feedback, ConocoPhillips Australia has extended consultation on the proposed activity until 30 September 2023. This ensures all relevant persons have a reasonable period of time to consider the information we have provided during the course of consultation and provide feedback to us on the potential impacts of the activity on their functions, interests and activities.

Consultation with relevant persons is an important part of developing and reviewing Environment Plans. Relevant persons are defined in the regulations as a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the environment plan. Please note, all consultation records will be provided to the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and published with the Environment Plan, unless you advise us that you don’t want that information published.

Provide feedback on draft Environment Plan chapters

As part of ongoing consultation, ConocoPhillips Australia is releasing draft EP chapters for review. We are asking relevant persons to raise concerns, including objections or claims, about the potential impacts of the activity. We are also seeking information about how relevant persons may be affected and feedback about how we intend to manage the activity to ensure the associated impacts are as low as reasonably practicable and are acceptable.

By providing the draft EP chapters, we aim to ensure that all relevant persons are provided with sufficient information so they can make an informed assessment of the potential impacts of the proposed Otway Exploration Drilling Program on their functions, interests and activities.

Relevant persons can view the draft EP chapters and information on how to provide feedback via the consultation hub by scanning the QR code or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by 30 September 2023, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment.

View available draft Environment Plan chapters

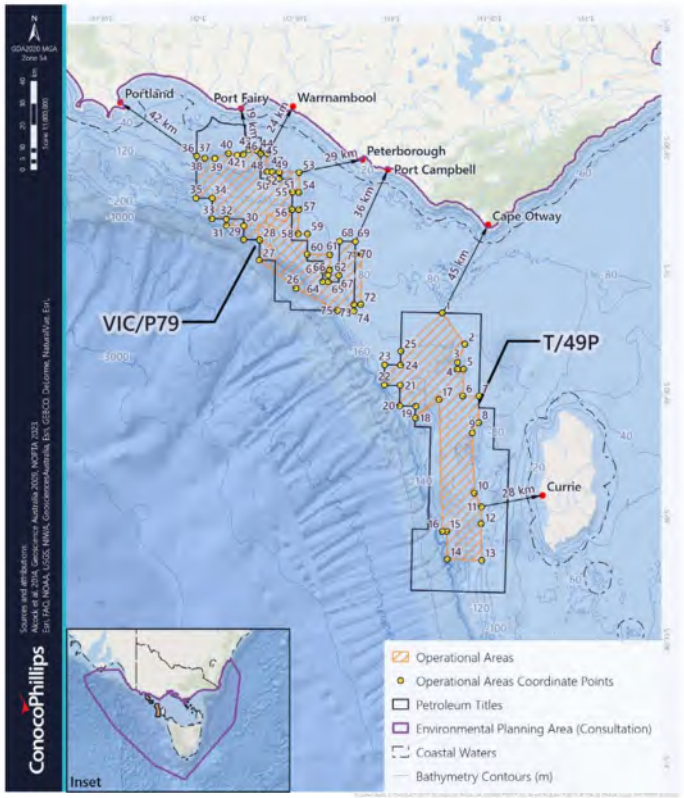
How to provide feedback on the draft Environment Plan chapters

There are three ways to provide feedback on the draft EP chapters:

- Fill out the feedback form. This form is ideal for short-form feedback, objections or claims and is located on the consultation hub.
- Send detailed feedback, including your assessment of the possible consequences of the proposed activity on your functions, interests or activities and any objections or claims to otway@conocophillips.com or PO BOX 1243, MILTON, QLD, 4064.
- Request specific information and/or an opportunity to discuss the proposed activity and provided information with a member of the ConocoPhillips Australia's Otway Exploration Drilling Program team by emailing otway@conocophillips.com or calling 07 3182 7122.

Please note, PDF versions of EP chapters can be made available for relevant persons on request. In addition, excerpts or a summary of EP information, e.g. specific to particular aspects or receptors, can also be provided on request.

Revised Operational Area and Permit Area Map with Coordinates



Label	Latitude (DDM)	Longitude (DDM)
1	39° 11.942868'S	143° 17.870276'E
2	39° 19.452207'S	143° 25.232151'E
3	39° 23.954094'S	143° 23.005317'E
4	39° 25.544333'S	143° 23.047592'E
5	39° 25.556888'S	143° 24.940287'E
6	39° 32.112696'S	143° 24.957322'E
7	39° 32.036884'S	143° 30.080953'E
8	39° 38.511455'S	143° 30.208905'E
9	39° 41.015225'S	143° 28.273631'E
10	39° 55.766188'S	143° 29.500828'E
11	39° 59.047894'S	143° 31.79181'E
12	40° 3.225151'S	143° 31.850275'E
13	40° 12.177574'S	143° 32.425803'E
14	40° 12.117504'S	143° 21.414201'E
15	40° 5.332475'S	143° 21.02598'E
16	40° 5.317236'S	143° 19.642539'E
17	39° 33.065567'S	143° 17.494065'E
18	39° 37.787731'S	143° 10.139134'E
19	39° 34.888459'S	143° 10.129765'E

Label	Latitude (DDM)	Longitude (DDM)
20	39° 34.864304' S	143° 5.132129' E
21	39° 29.887356' S	143° 5.131516' E
22	39° 29.891242' S	143° 0.130618' E
23	39° 24.948193' S	143° 0.124462' E
24	39° 24.947305' S	143° 5.119722' E
25	39° 21.531633' S	143° 5.122467' E
26	39° 6.625669' S	142° 31.731013' E
27	38° 59.911817' S	142° 20.082382' E
28	38° 54.910972' S	142° 20.082627' E
29	38° 54.911842' S	142° 15.082341' E
30	38° 51.532672' S	142° 15.099903' E
31	38° 51.532931' S	142° 9.630396' E
32	38° 49.913611' S	142° 9.635697' E
33	38° 49.911898' S	142° 5.082357' E
34	38° 44.911033' S	142° 5.082576' E
35	38° 44.911085' S	142° 0.082634' E
36	38° 34.634708' S	142° 0.082378' E
37	38° 34.63893' S	142° 0.111735' E
38	38° 35.133234' S	142° 2.604834' E

Label	Latitude (DDM)	Longitude (DDM)
39	38° 35.160424' S	142° 5.821354' E
40	38° 33.879794' S	142° 10.004567' E
41	38° 34.296033' S	142° 12.722788' E
42	38° 34.080533' S	142° 14.557198' E
43	38° 32.964096' S	142° 16.237201' E
44	38° 33.122503' S	142° 18.888924' E
45	38° 33.855446' S	142° 20.081528' E
46	38° 33.855721' S	142° 20.081974' E
47	38° 33.85662' S	142° 22.147729' E
48	38° 38.288879' S	142° 22.150006' E
49	38° 38.288847' S	142° 23.674805' E
50	38° 39.910702' S	142° 23.686989' E
51	38° 39.910698' S	142° 25.946003' E
52	38° 38.288867' S	142° 25.945276' E
53	38° 38.288453' S	142° 32.149722' E
54	38° 43.151128' S	142° 32.152191' E
55	38° 43.150951' S	142° 30.082072' E
56	38° 47.376154' S	142° 30.082194' E
57	38° 47.373979' S	142° 32.154344' E

Label	Latitude (DDM)	Longitude (DDM)
58	38° 53.289081' S	142° 32.157397' E
59	38° 53.289058' S	142° 35.080919' E
60	38° 58.304081' S	142° 35.082044' E
61	38° 58.288721' S	142° 42.159693' E
62	39° 2.062281' S	142° 42.161638' E
63	39° 2.067572' S	142° 40.082457' E
64	39° 4.910809' S	142° 40.08254' E
65	39° 4.910789' S	142° 41.783615' E
66	39° 3.291066' S	142° 41.776556' E
67	39° 3.281544' S	142° 45.082389' E
68	38° 54.910601' S	142° 45.082123' E
69	38° 54.91052' S	142° 50.082021' E
70	38° 57.979071' S	142° 50.0821' E
71	38° 57.970856' S	142° 52.159172' E
72	39° 10.314739' S	142° 52.16565' E
73	39° 10.3231' S	142° 50.082536' E
74	39° 11.910767' S	142° 50.082591' E
75	39° 11.911623' S	142° 44.928205' E

Have we missed anyone?

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Otway Exploration Drilling Program

ConocoPhillips Australia

Draft EP Chapters Available for Consultation

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Matthew Yeo

From: no-reply@consultationmanager.com
Sent: Monday, 6 November 2023 4:07 PM
To: Matthew Yeo
Subject: Test Email

Otway Exploration Drilling Program

ConocoPhillips Australia

Webinar Details

Please find below the log-in details for the ConocoPhillips Australia Otway Exploration Drilling Program Webinar.

Date: Wednesday 20 September 2023
Time: 5-6.30pm AEST

Can't make the webinar? A recording will be loaded to the consultation hub after the event.

Teams Meeting Details

Join on your computer, mobile app or room device.

Click here to join the meeting

Meeting ID: 271 782 037 96

Passcode: iyGftj

Download Teams | Join on the web

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Draft Environment Plan Chapters Now Available

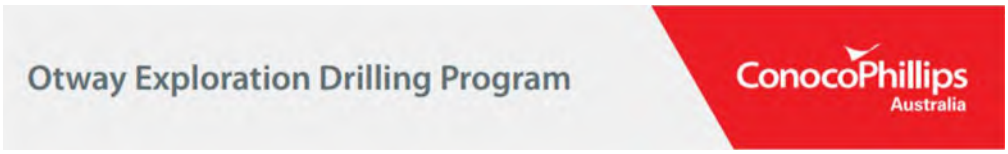
ConocoPhillips Australia is seeking your insights, experience, and expertise as we look to refine the impact and risk assessments for the Otway Exploration Drilling Program Environment Plan.
These chapters have been compiled using careful research, analysis, and the dedicated pursuit of informed decision-making. Any environmental assessment process is improved by thoughtful critique, suggestions, and feedback to ensure these assessments are as comprehensive, robust, and accurate as possible. Your unique perspectives and areas of expertise could shed light on facets that we might have overlooked or underestimated.
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Review Chapters

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Otway Exploration Drilling Program

ConocoPhillips Australia

Notification of Consultation Pause

In line with our consultation approach for the Otway Exploration Drilling Program, ConocoPhillips Australia is briefly pausing consultation during October while we compile the Environment Plan for submission to NOPSEMA for formal public comment.

During this time we will also respond to all individuals and organisations who provided feedback or raised objections and claims on the draft Environment Plan content that was made available from 31 August 2023 via our online consultation hub. These chapters remain available on the consultation hub.

Please note that during this time our responses may be delayed but we will get back to you.

Visit the consultation hub

Otway Exploration Drilling Program

ConocoPhillips Australia

Pre-submission Consultation Complete

ConocoPhillips Australia has completed pre-submission consultation on the Otway Exploration Drilling Environment Plan. ConocoPhillips Australia will shortly submit the EP and NOPSEMA will check the EP before publishing it for public comment. ConocoPhillips will continue consultation throughout public comment and the life of the project, and we encourage people with feedback to contact us as detailed below. We thank everybody who has participated in the consultation process over the past year.

Sensitive Information

As a reminder, you may request that information you provide to us not be published in the Environment Plan. Correspondence between us will be provided in full to NOPSEMA in a part of the Environment Plan which is marked as 'sensitive information' and will not be published.

To make this request please notify us by October 31st.

E: otway@conocophillips.com

T: 07 3182 7122

M: PO BOX 1243, MILTON, QLD, 4064

NOPSEMA - Information for the Community

The National Offshore Petroleum and Environmental Management Authority (NOPSEMA) has produced a brochure that provides information to the community regarding consultation on offshore petroleum environment plans. The brochure can be found in the Resource Library here.

What we've heard

Through our consultation activities, we have received and considered information unique to the activity area and put environmental protection measures in place where appropriate. We have produced a table, which can be found here, showing what we've heard, how we have assessed it and any measures adopted because of the consultations. The table is a thematic representation of the feedback we've heard. If you do not see your specific feedback, objection, or claim shown here it may be due to our thematic approach. Noting, all feedback received during consultation is provided unchanged to NOPSEMA.

Webinar

The next activity update webinar will be on Wednesday 15th November, please register for the webinar via the consultation hub.

Otway Exploration Drilling Program

ConocoPhillips Australia

Webinar Details

Please find below the log-in details for the ConocoPhillips Australia Otway Exploration Drilling Program Webinar.

This webinar will cover the next steps in the Environment Plan (EP) process as ConocoPhillips Australia moves to public comment and the EP assessment commences. Please note, questions will be limited to procedural questions only.

Date: Wednesday 15 November 2023
Time: 5-5.30pm AEST

Meeting Details

Join on your computer, mobile app or room device.

Click here to join the meeting
Meeting ID: 211 701 487 151
Passcode: JaPMnY
Download Teams | Join on the web

Additional Meeting Information: Participants will be muted for the duration of the presentation but able to ask questions via the chat. Please note that only procedural questions will be answered in this webinar.

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conocophillips.com.au

Visit the online consultation hub

If you'd like to unsubscribe and stop receiving these emails click here.

Otway

From: ConocoPhillips Australia <otway@conocophillips.com>
Sent: Friday, 17 November 2023 3:50 PM
To: Otway
Subject: NOTICE OF PUBLIC COMMENT: ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

Follow Up Flag: Follow up
Flag Status: Completed

Categories: Saved as PDF

Otway Exploration Drilling Program

ConocoPhillips Australia

NOTICE OF PUBLIC COMMENT PERIOD

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

The proposed ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan (EP) is now available for public comment via the NOPSEMA website https://consultation.nopsema.gov.au

You are invited to read the EP and associated documents and submit your comments to NOPSEMA during the public comment period which will run between 16 November and 18 December 2023.

The public comment period provides an opportunity for community members to raise issues about environmental management matters that have not yet been considered in the environment plan for the proposed activity. To read more about the public comment period and how to make an effective comment visit the NOPSEMA website and read *Have your say on environmental aspects of offshore energy activities*.

If you'd like to unsubscribe and stop receiving these emails click here.

Otway Exploration Drilling Program

ConocoPhillips Australia

ConocoPhillips Australia is planning to undertake exploration activities in operational areas associated with offshore permits VIC/P79 and T/49P located in Commonwealth waters. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.

Environment Plan Summary Now Available

To support the public comment period, ConocoPhillips Australia has developed the Otway Exploration Drilling Program Environment Plan Summary which can be accessed via the resource library on the consultation hub.

To view the proposed ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan (EP) now available for public comment, visit the NOPSEMA website https://consultation.nopsema.gov.au

The public comment period commenced on 16 November and will close on 18 December 2023. To read more about the public comment period and how to make an effective comment visit the NOPSEMA website and read *Have your say on environmental aspects of offshore energy activities*.

Visit the consultation hub

Have we missed anyone?
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ConocoPhillips

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ConocoPhillips

Otway Exploration Drilling Program

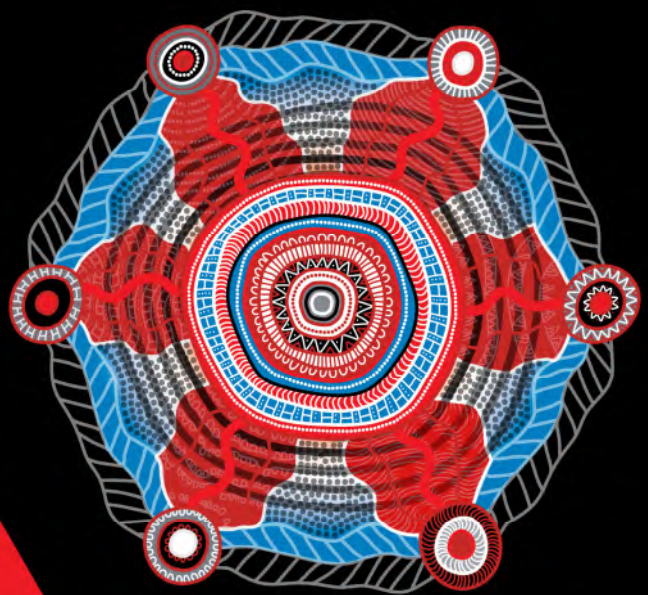
Community Information Session – King Island

18 May 2023

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ConocoPhillips

ConocoPhillips Australia acknowledges the Aboriginal and Torres Strait Islander peoples as the First Nations Peoples and Traditional Custodians of this land, and we pay our respects to Elders past, present and emerging. We celebrate the Aboriginal and Torres Strait Islander peoples' long histories, rich cultures and connection to the land, water and air.



11/9/2023

3

Overview

- Welcome and introductions.
- Why we're here.
- About ConocoPhillips Australia.
- Proposed exploration drilling program and activities.
- Offshore exploration regulations overview.
- Offshore drilling – explained.
- Environmental impacts and risks explained
  - —Our methodology
  - —Preliminary assessment.
- Panel session – questions, answers and feedback.

Seeking Relevant Persons

ConocoPhillips Australia is seeking to understand functions, interests or activities that may be affected by the proposed Otway Exploration Drilling Program.

This information, along with the assessment of impacts and risks, determines if an individual or organisation is a 'relevant person'.

A relevant person is a mandatory consultee under the Regulations.

ConocoPhillips

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ConocoPhillips Australia

ConocoPhillips Australia was established almost two decades ago.

- We are a shareholder in Australia Pacific LNG (APLNG) and operate the APLNG facility on Curtis Island, in Queensland.
- We are headquartered in Brisbane, QLD.
- We have more than 50 years offshore experience globally (starting in the North Sea off UK and Norway and including offshore between northern Australia and Timor Leste).

Current exploration portfolio

Two permits in the offshore Otway Basin:

- T/49P
- VIC/P79



APLNG facility on Curtis Island in the Gladstone Region, Queensland.

ConocoPhillips
11/9/2023

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Otway Exploration Drilling Program

Areas:

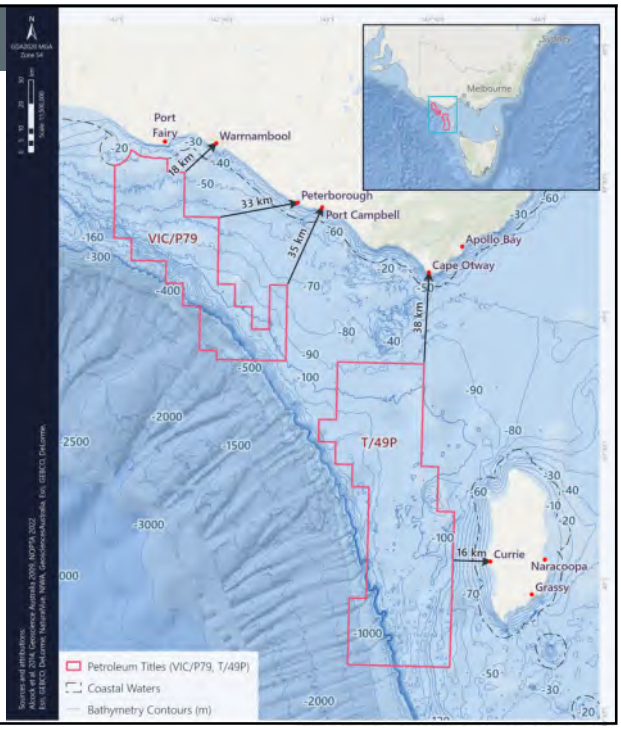
- VIC/P79 and T/49P
- ConocoPhillips Australia holds an 80% interest and operatorship of both permits.

Key Permit Prospects Characteristics:

- Offshore Otway Basin
- Water depth range 35-1400m, predominantly ~100m
- Adjacent to producing Thylacine, Geographe, Casino, and Henry gas fields.

Existing permit commitments:

- T/49P commitment of one exploration well.
- VIC/P79 commitment of one exploration well.



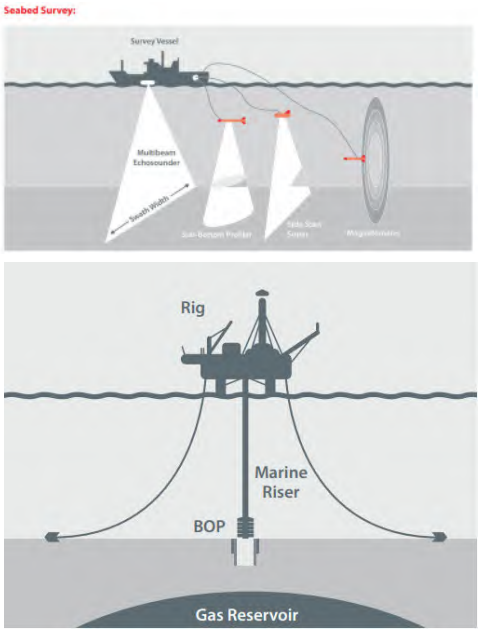
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Otway Exploration Drilling Activities

1. Seabed Hazard Survey involves:
   - ~6 km^2 per site area at up to 9 locations
   - Vessel operations
   - Geophysical survey
   - Geotechnical sampling
   - Imagery
2. Exploration Drilling involves:
   - Marine offshore drilling unit operations
   - Support vessels, remote operated vehicle, aircraft
   - Anchor placement/removal
   - Evaluation and testing (flaring)
   - Plug and Abandon all wells

Environment Plan and associated impact and risk assessment based on maximum of 6 wells over 5yrs.



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Offshore Regulation Overview

The Basics

8

The Environment Regulations



The Regulations place the burden of proof on the titleholder:

Recognises environments are all different

Titleholder must do the work to justify it environmental standards

Our propositions are independently scrutinized by Government



The Regulations have three foundational concepts:

Principles of ecologically sustainable development.

Environmental impacts and risks must be of an acceptable level.

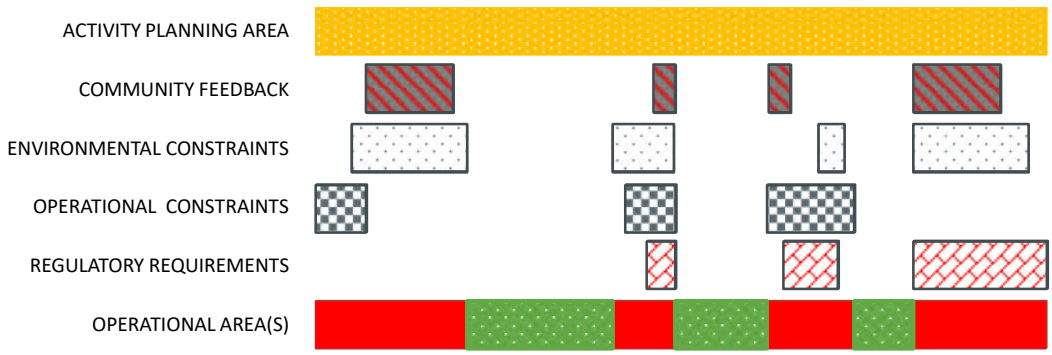
Environmental impacts and risks must be managed to as low as reasonably practicable.

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Activity Planning Process

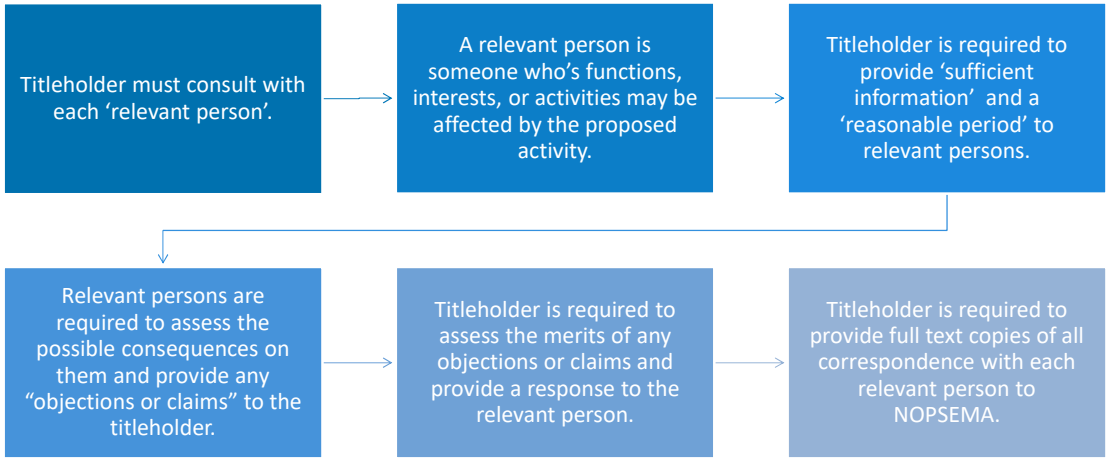


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The Consultation Process



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Offshore Drilling

The Basics

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Drilling Terms

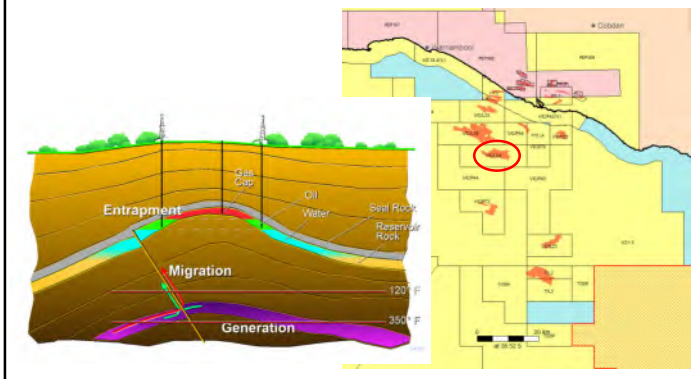
MODU	Mobile Offshore Drilling Unit (Rig)
AHSV	Anchor Handling Supply Vessel (Boat)
Exploration Well	A well drilled to investigate an exploration prospect – usually the first well drilled in a field or area
Appraisal Well	The wells drilled following the initial discovery well – usually drilled to identify the extent of a discovery or to gather more information
Production Well	A well drilled for the purpose of producing hydrocarbons
BOP	Blowout Preventer – a series of high pressure valves that prevent the flow of formation fluids to the environment
MWD/LWD	Measurement While Drilling and Logging While Drilling – drilling tools that contain measurement sensors that transmit data to surface real time.

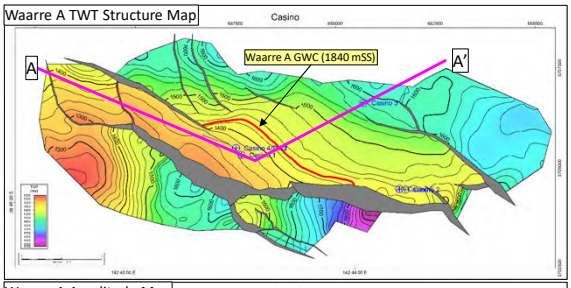
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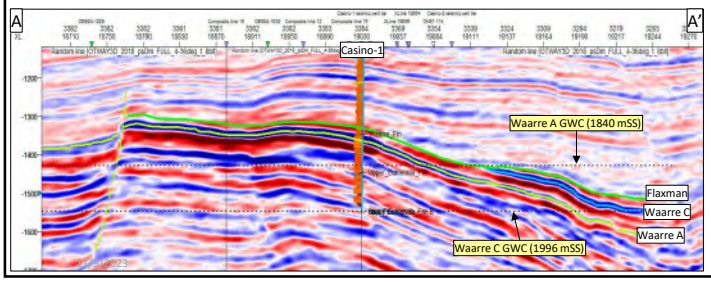
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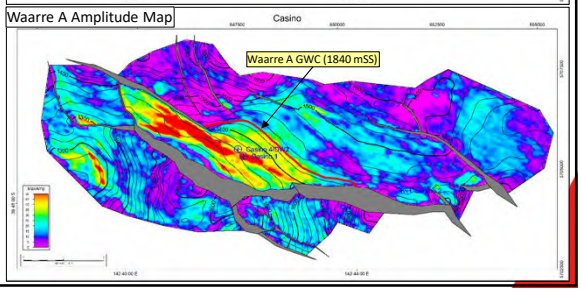
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We are looking for Gas









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Common Offshore Rig Types



Jack-up
6-100m Water Depth



Semi-Submersible
50-1000+m Water Depth



Drill Ship
600-3000+m Water Depth

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Drilling Process - Mooring

Anchors





Anchors are ~ 20 metric ton with an additional 9 metric ton ballast

8-12 anchors required to hold rig on location

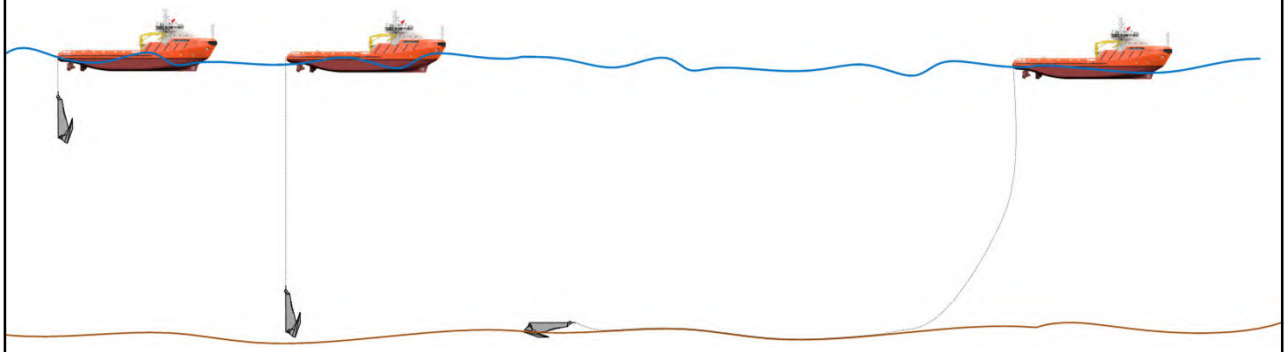
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Drilling Process - Mooring

Anchor Installation – Pre-laid mooring



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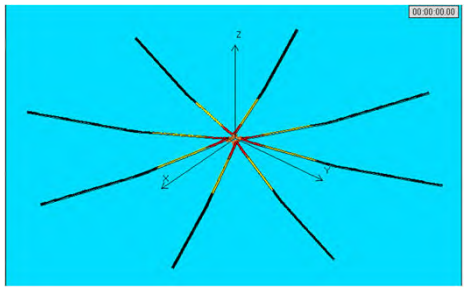
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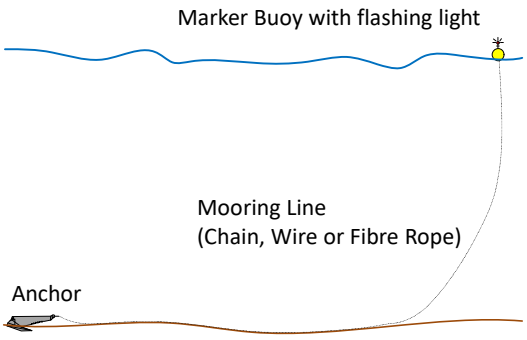
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Drilling Process - Mooring

Anchor Installation – Pre-laid mooring

- Anchors may be pre-laid a few weeks before the rig arrives on location
- Rigs have between 8 and 12 anchors
- Navigation warnings will be in place via Notice to Mariners





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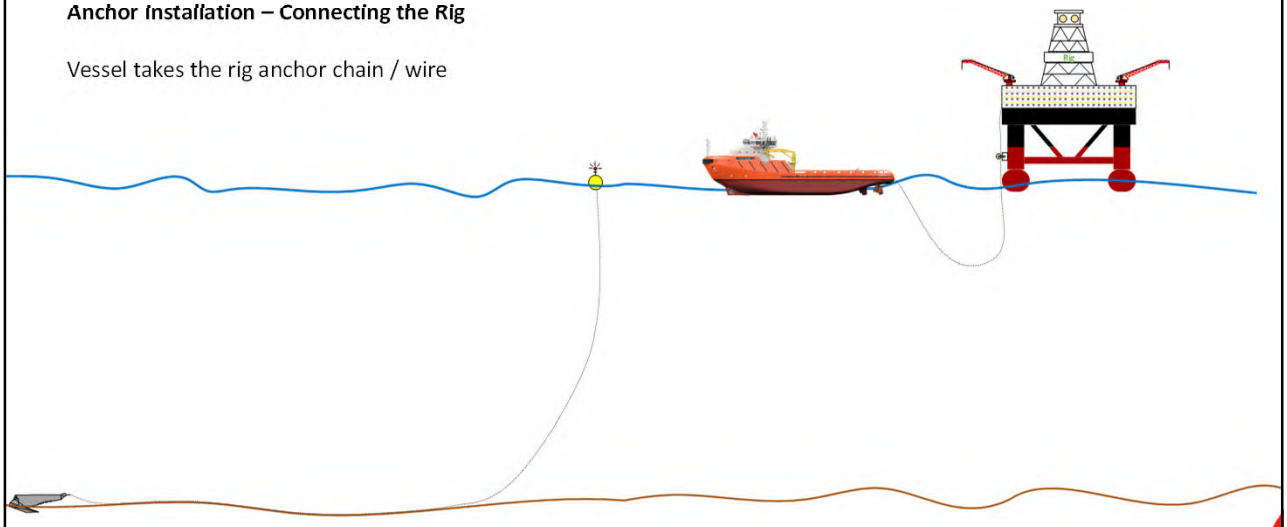
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Vessel takes the rig anchor chain / wire



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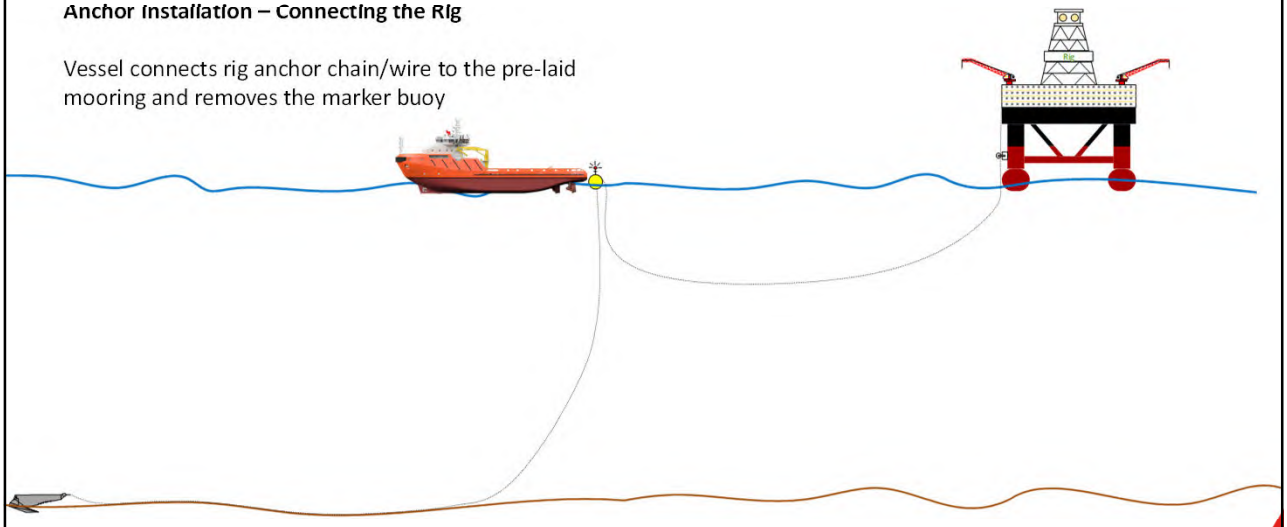
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Vessel connects rig anchor chain/wire to the pre-laid mooring and removes the marker buoy



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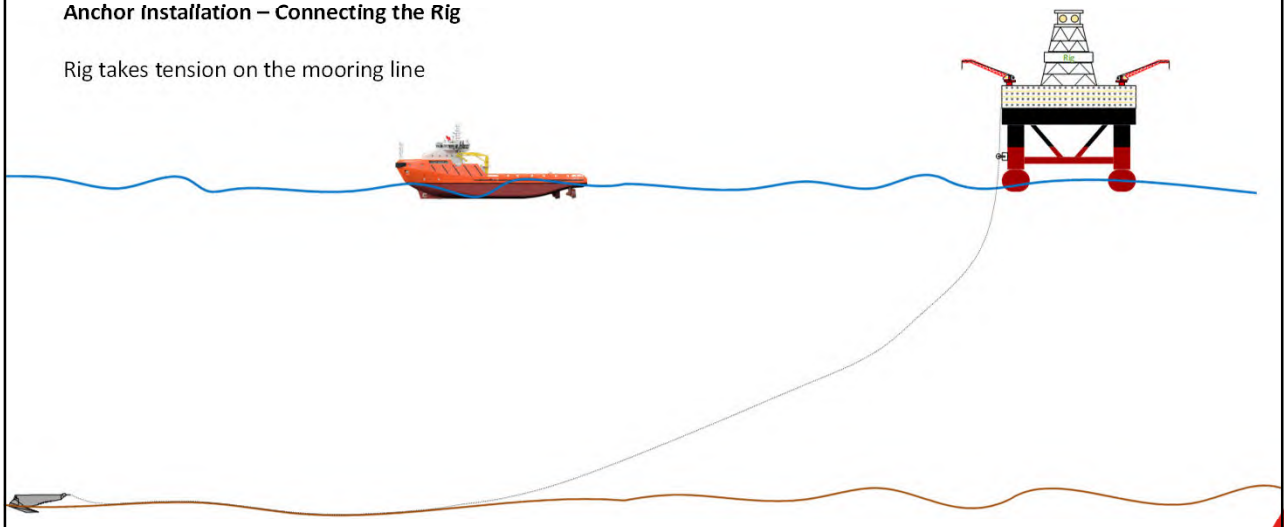
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Rig takes tension on the mooring line



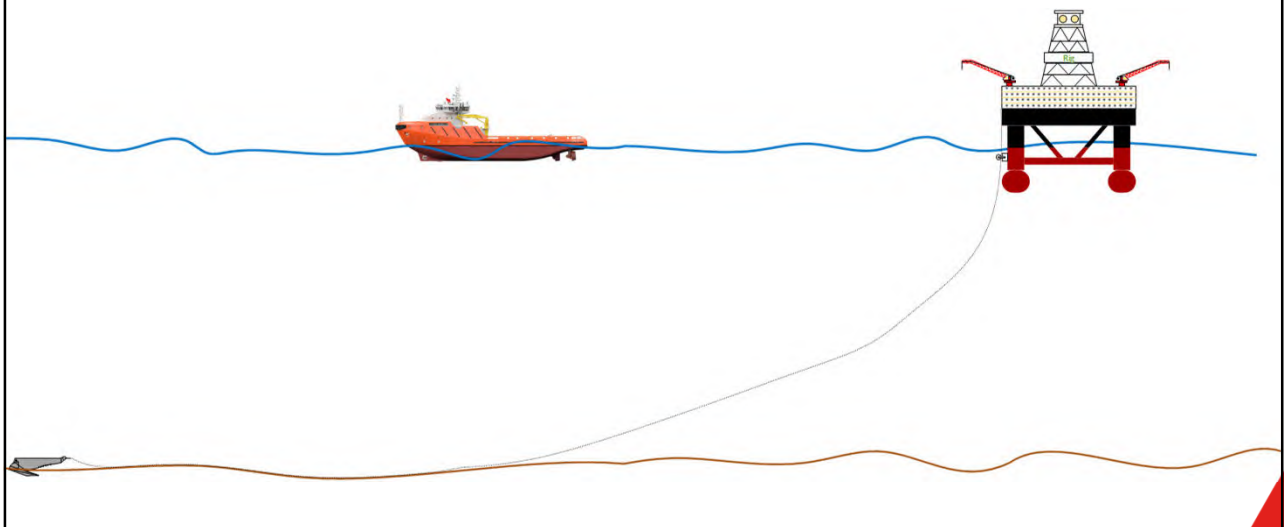
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Drilling Process - Mooring

Once anchors are connected – rig ballasts down to drilling draft



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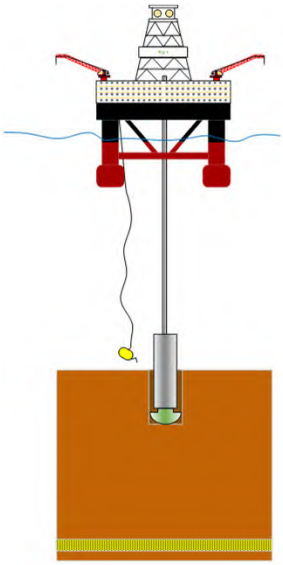
Drilling Process – Drilling the well

Spudding the well

- Drilling the foundation hole
- Typically 42” hole
- Drilled 60-100m below seabed



Drill bit and Hole Opener



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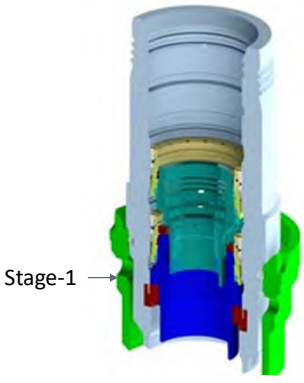
Drilling Process – Drilling the well

Installing the First Part of the Wellhead

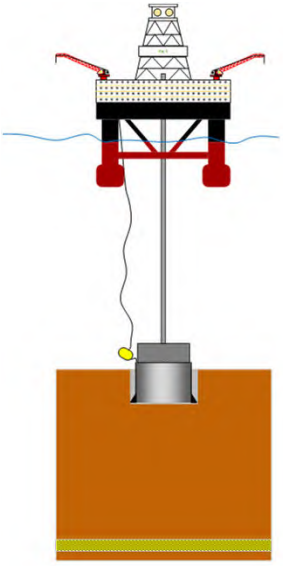
- 36” conductor pipe
- Stage 1 wellhead housing installed
- The conductor is cemented in place



Conductor Pipe



Subsea Wellhead System



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Drilling Process – Drilling the well

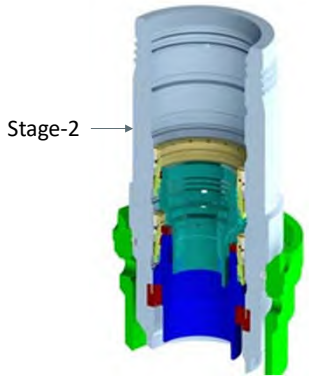
Drilling Surface Hole

- Drill 26” hole
- 20” Surface Casing
- Stage-2 wellhead housing installed
- Casing is cemented in place

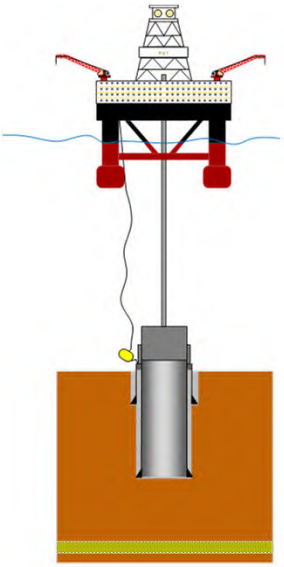




Well Casing



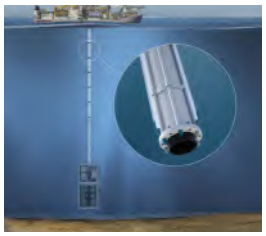
Subsea Wellhead System



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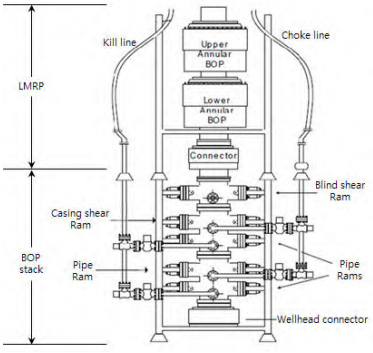
Drilling Process – Drilling the well

Installing the BOP and Riser

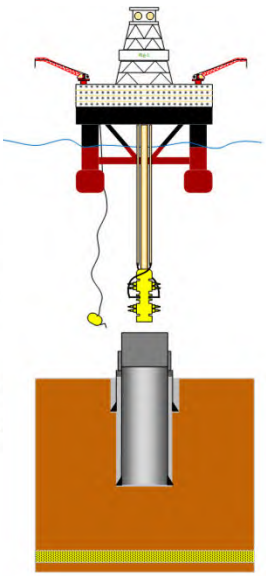




Well Casing



Subsea Wellhead System



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Drilling Process – Drilling the well

Drilling the Intermediate Hole

A. Primary Barrier

- Used to maintain "overbalance" to the pressure in the formation.
- The static hydrostatic pressure of the drilling fluid must be more than the pressure WITHIN the rock.

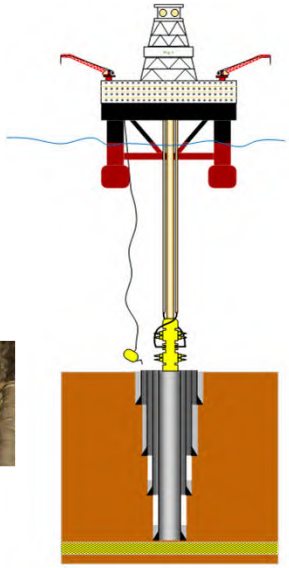
B. Using the drilling fluids

- Used to cool the drill bit and the wellbore.
- Transports cuttings to the surface.
- Water based muds contain barite and bentonite (natural minerals).
- Chemicals added as required.
- MUST go through chemical selection process per the Environment Plan.





Drilling Fluids



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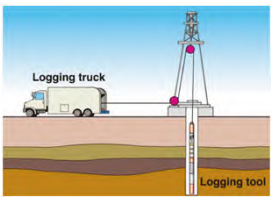
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Drilling Process – Drilling the well

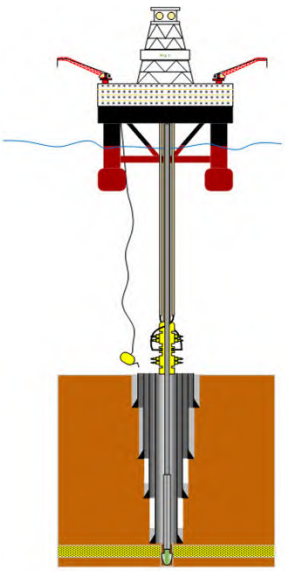
Drilling the Reservoir Hole and Evaluate Well

- Reservoir / Formation Evaluation
  - Used to establish key subsurface information
    - Formation type
    - Formation fluid type
    - Formation porosity and permeability
    - Formation pressure and flow characteristics
    - Sample reservoir fluids
  - MWD/LWD – performed whilst drilling
  - Wireline logging – after hole is drilled









Pictures from SLB, Paniz Energy & ANOG

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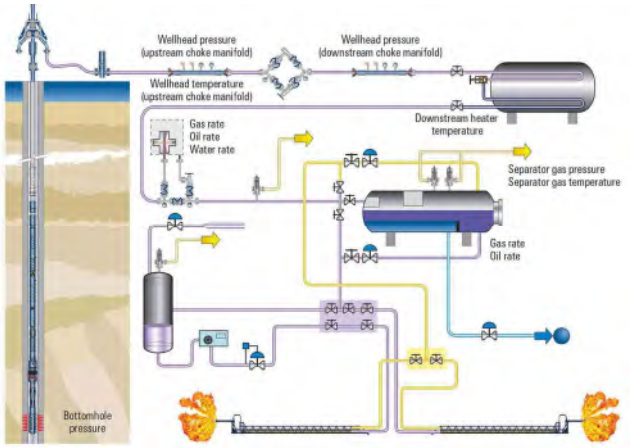
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Drilling Process – Well Testing

Well Testing determines the reservoir delivers hydrocarbons

- Not every well is tested.
- Typical to test “appraisal wells”.
- Typical used to fill the well with hydrocarbons for preparation of new production wells.



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Pictures from SLB

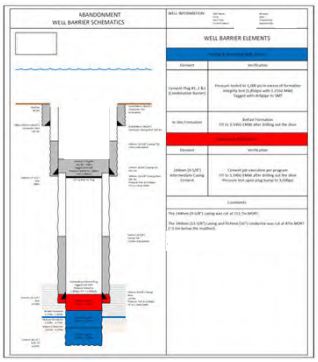
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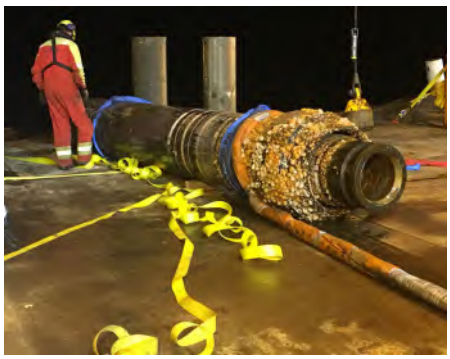
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Drilling Process – Well Abandonment

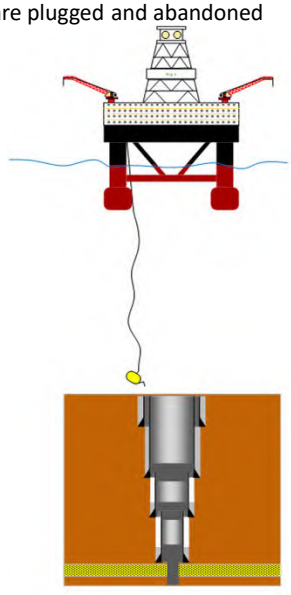
Following the drilling of exploration wells or at the end of a wells production life – wells are plugged and abandoned

- Set cement plugs to prevent the movement of formation fluids either to surface or into shallower formations.
- Removal of the wellhead at below seabed floor level.





Picture from Acteon



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Drilling Process – Equipment Used









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Drilling Process – Life Offshore

- Rosters are either 3 weeks on, 3 weeks off or 4 weeks on, 4 weeks off
- 12 hour shifts
- No alcohol.






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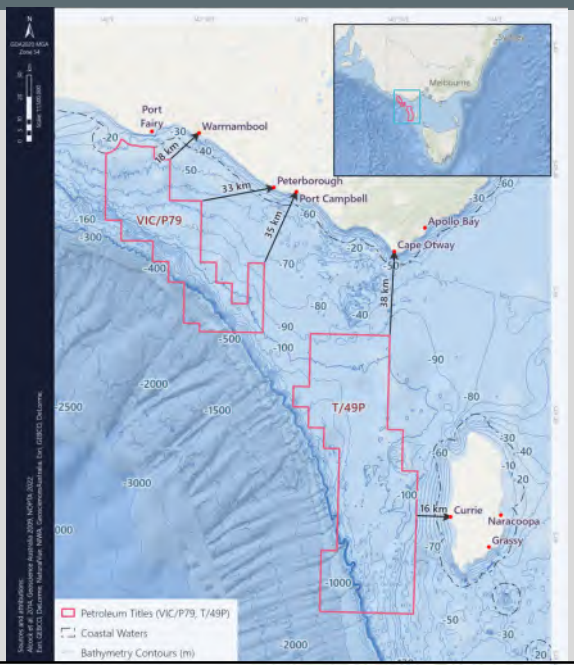
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Environmental Impacts and Risks

Preliminary Assessment

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Understanding the proposed activity



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Proposed Activity

Parameter	Seabed Survey	Drilling
Design Envelope – the broadest timeframe and spatial extent of the activity		
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells).
Spatial extent (within which activity can occur)	Operational Areas within T/49P and Vic/P79	Operational Areas within T/49P and Vic/P79
Operating Envelope – narrowing the timing and location of the activities to the current best estimates		
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km^2 (Nine locations, each 6 x 6 km) within Operational Areas	75 km^2 (Six locations, each a 2 km radius Drilling Area) within Operational Areas

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Desktop analysis to understand the existing environment

Physical Environment

- Water quality
- Sediment quality
- Air quality
- Climate
- Ambient light
- Ambient Sound

Ecological Environment

- Benthic Habitats and Communities
- Coastal Habitats and Communities
- Plankton Invertebrates
- Fish
- Birds
- Marine Reptiles
- Marine Mammals
- Conservation values and sensitivities

Socio-economic Environment

- Coastal Communities
- Commercial Fisheries
- Defence Activities
- Offshore Petroleum Activities
- Offshore Renewable Energy Activities
- Other Offshore Infrastructure
- Tourism
- Recreational Diving and Fishing
- Shipping

Cultural Environment

- First Nations Peoples
- Native Title
- Maritime Archaeological Heritage (including shipwrecks)

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Consideration to how our activity interacts with the existing environment

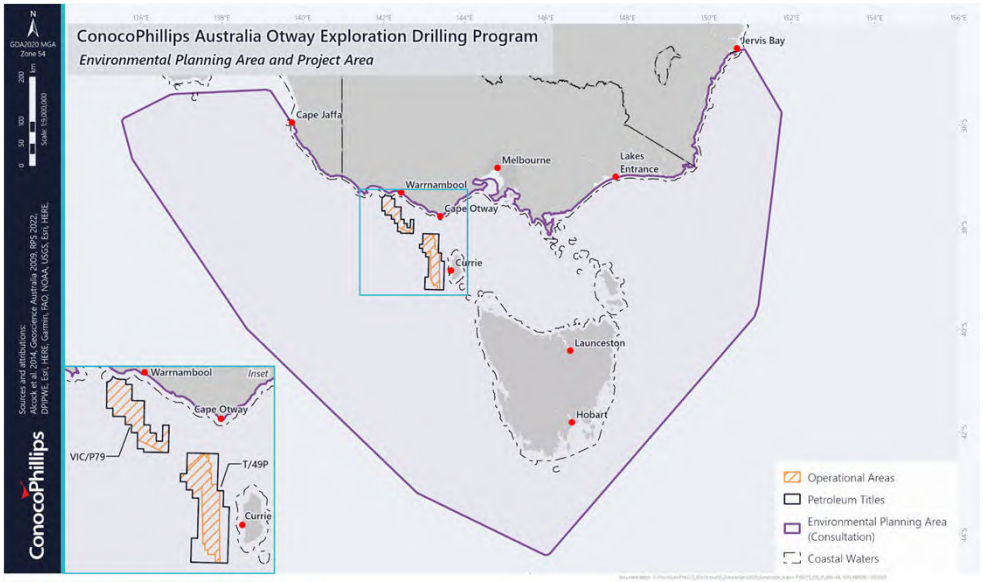
Environmental Impacts	Seabed Disturbance	• Seabed samples • Anchor placement
	Underwater Sound Emissions	• Underwater sound from drilling and support vessel. • Impulsive sound from seabed surveys.
	Atmospheric Emissions	• Emissions from survey and drilling activities.
	Planned Vessel/ Rig Discharges	• Routine discharges from support vessels and drilling rigs. • Cement, cuttings and drilling fluid.
	Interference with other Marine Users	• Short-term displacement.
	Light and Visual Amenity	• Potential visibility of drilling rig from coastline. • Routine light expected to be visible on horizon. • Potential visibility of flare from coastline.
Environmental Risks	Vessel based risks	• Loss of material or waste overboard. • Interactions with marine fauna. • Introduction and establishment of invasive marine species.
	Hydrocarbon related risks	• Minor loss of containment. • Marine diesel oil release. • Loss of well control release.

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Consultation to better understand environmental values and sensitivities

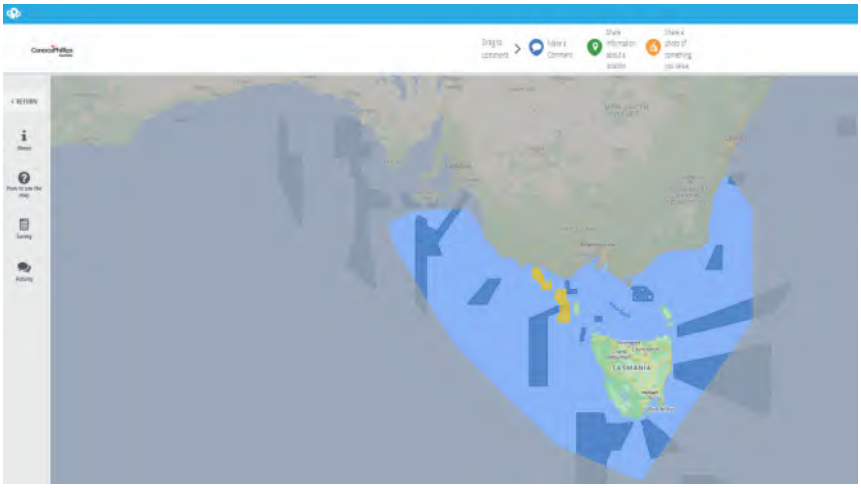


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Share your environmental values and sensitivities



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Questions

Feedback

Where to from here?

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Exploration Terms

NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority Independent expert regulator responsible for health and safety, structural (well) integrity and environmental management for offshore petroleum and greenhouse gas storage activities in Commonwealth waters.
NOPTA	National Offshore Petroleum Titles Administrator They are responsible for the day-to-day administration of petroleum & greenhouse gas titles in Commonwealth waters in Australia.
EP	Environment Plan A document submitted to NOPSEMA for assessment prior to the commencement of an activity, which contains information on environmental assessment, implementation of environmental management, details of the titleholder and other information specified in the Environment Regulations
Exploration Well	A well drilled to investigate an exploration prospect – usually the first well drilled in a field or area.
Seabed Survey	Seabed surveys are an important safety and environmental measure undertaken ahead of drilling activities. They typically involve geophysical and geotechnical sampling techniques that identify possible hazards and seafloor habitat to inform exploration well and drilling rig anchor placement.

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End

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Otway Exploration Drilling Program

Webinar – 23 May 2023

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Recording Notice

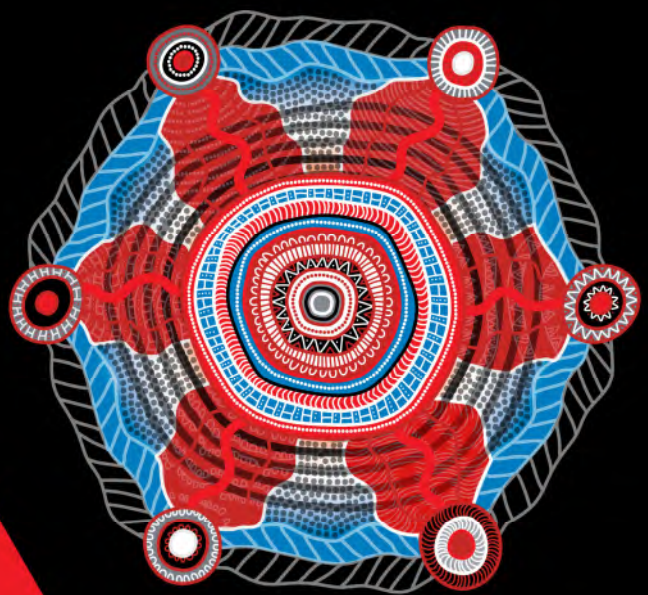
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ConocoPhillips Australia acknowledges the Aboriginal and Torres Strait Islander peoples as the First Nations Peoples and Traditional Custodians of this land, and we pay our respects to Elders past, present and emerging. We celebrate the Aboriginal and Torres Strait Islander peoples' long histories, rich cultures and connection to the land, water and air.



2/21/2024

3

Overview

- Welcome and introductions.
- About ConocoPhillips Australia.
- Proposed exploration drilling program and activities.
- Offshore exploration regulations overview.
- Offshore drilling – explained.
- Environmental impacts and risks explained
  - —Our methodology
  - —Preliminary assessment.
- Questions and Answers

Seeking Relevant Persons

ConocoPhillips Australia is seeking to understand functions, interests or activities that may be affected by the proposed Otway Exploration Drilling Program.

This information, along with the assessment of impacts and risks, determines if an individual or organisation is a 'relevant person'.

A relevant person is a mandatory consultee under the Regulations.

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ConocoPhillips Australia

ConocoPhillips Australia was established almost two decades ago.

- We are a shareholder in Australia Pacific LNG (APLNG) and operate the APLNG facility on Curtis Island, in Queensland.
- We are headquartered in Brisbane, QLD.
- We have more than 50 years offshore experience globally (starting in the North Sea off UK and Norway and including offshore between northern Australia and Timor Leste).

Current exploration portfolio

Two permits in the offshore Otway Basin:

- T/49P
- VIC/P79



APLNG facility on Curtis Island in the Gladstone Region, Queensland.

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Otway Exploration Drilling Program

Areas:

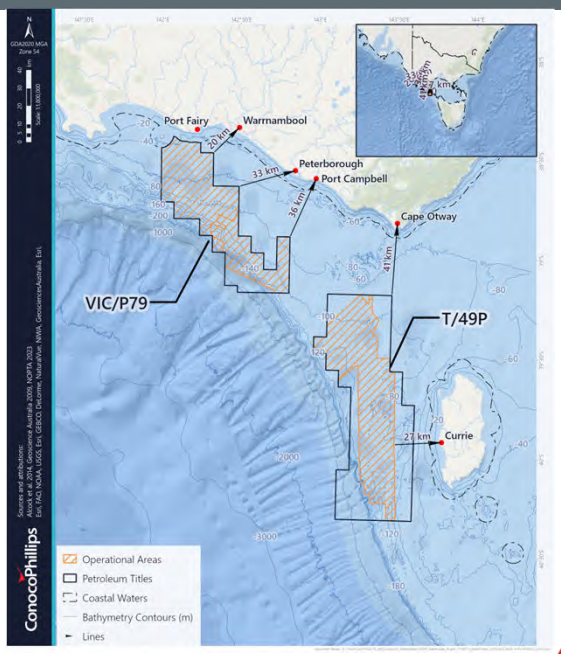
- VIC/P79 and T/49P
- ConocoPhillips Australia holds an 80% interest and operatorship of both permits.

Key Permit Prospects Characteristics:

- Offshore Otway Basin
- Water depth range 35-1400m, predominantly ~100m
- Adjacent to producing Thylacine, Geographe, Casino, and Henry gas fields.

Existing permit commitments:

- T/49P commitment of one exploration well.
- VIC/P79 commitment of one exploration well.



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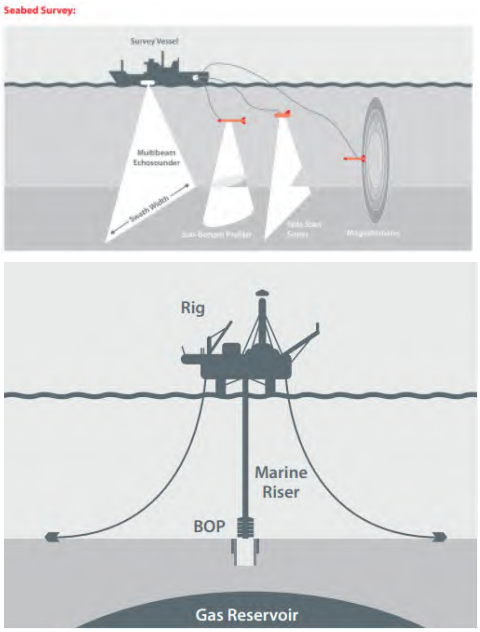
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Otway Exploration Drilling Activities

1. Seabed Hazard Survey involves:
   - ~6 km^2 per site area at up to 9 locations
   - Vessel operations
   - Geophysical survey
   - Geotechnical sampling
   - Imagery
2. Exploration Drilling involves:
   - Marine offshore drilling unit operations
   - Support vessels, remote operated vehicle, aircraft
   - Anchor placement/removal
   - Evaluation and testing (flaring)
   - Plug and Abandon all wells

Environment Plan and associated impact and risk assessment based on maximum of 6 wells over 5yrs.



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Offshore Regulation Overview

The Basics

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The Environment Regulations



The Regulations place the burden of proof on the titleholder:

Recognises environments are all different

Titleholder must do the work to justify it environmental standards

Our propositions are independently scrutinized by Government



The Regulations have three foundational concepts:

Principles of ecologically sustainable development.

Environmental impacts and risks must be of an acceptable level.

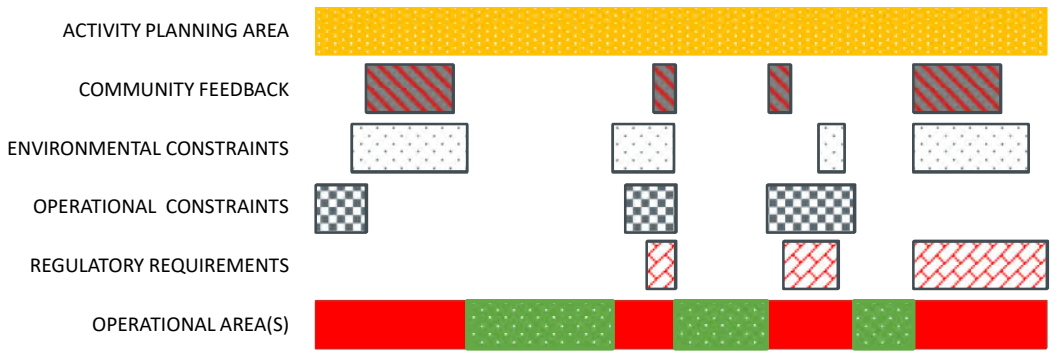
Environmental impacts and risks must be managed to as low as reasonably practicable.

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Activity Planning Process

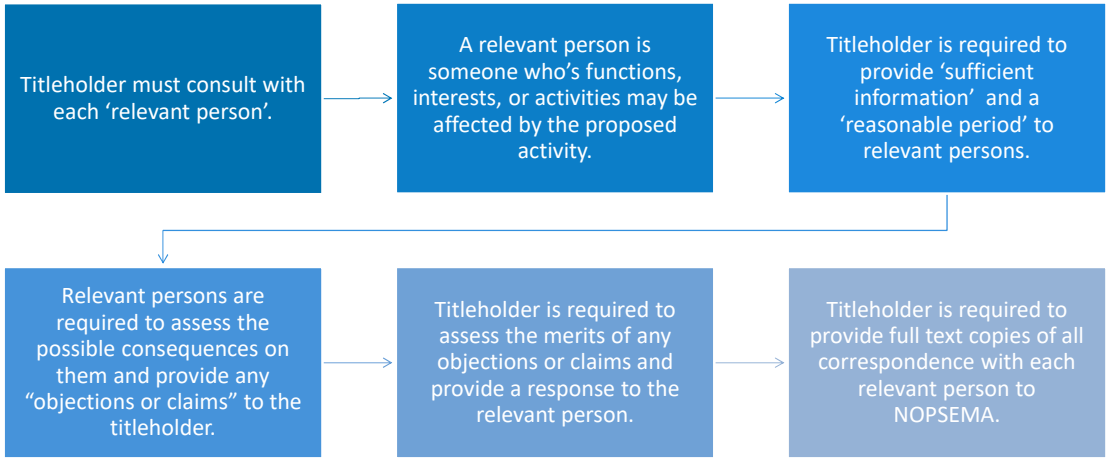


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The Consultation Process



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Offshore Drilling

The Basics

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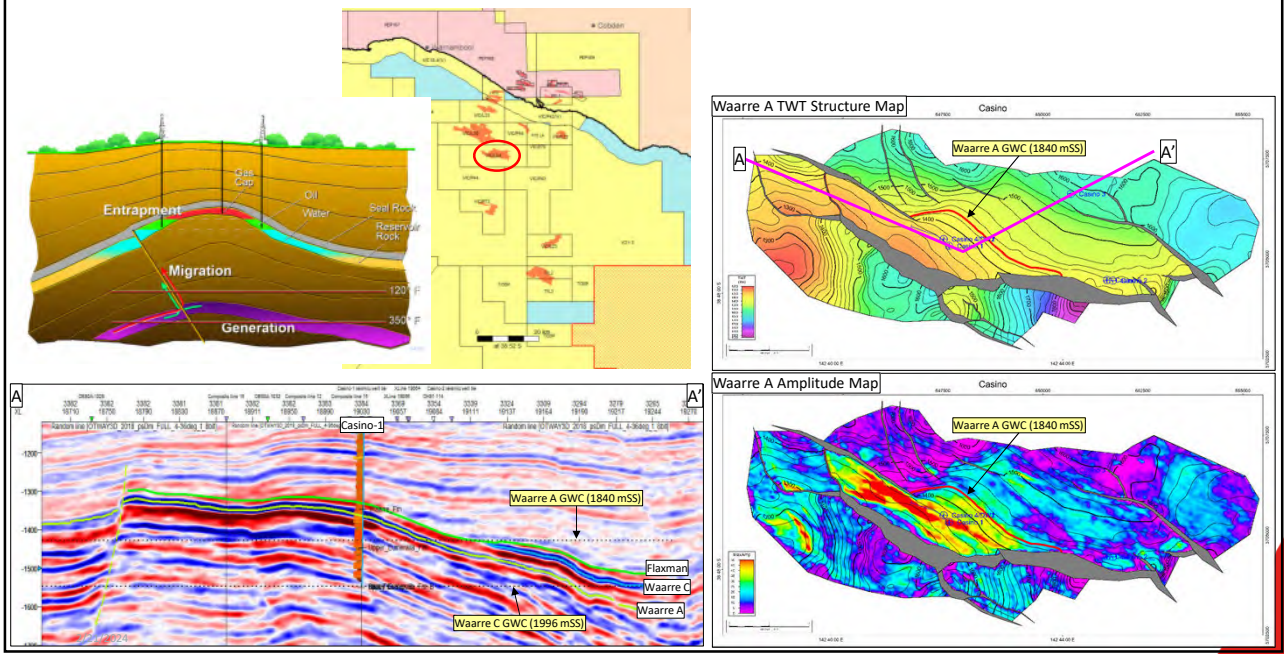
Drilling Terms

MODU	Mobile Offshore Drilling Unit (Rig)
AHSV	Anchor Handling Supply Vessel (Boat)
Exploration Well	A well drilled to investigate an exploration prospect – usually the first well drilled in a field or area
Appraisal Well	The wells drilled following the initial discovery well – usually drilled to identify the extent of a discovery or to gather more information
Production Well	A well drilled for the purpose of producing hydrocarbons
BOP	Blowout Preventer – a series of high pressure valves that prevent the flow of formation fluids to the environment
MWD/LWD	Measurement While Drilling and Logging While Drilling – drilling tools that contain measurement sensors that transmit data to surface real time.

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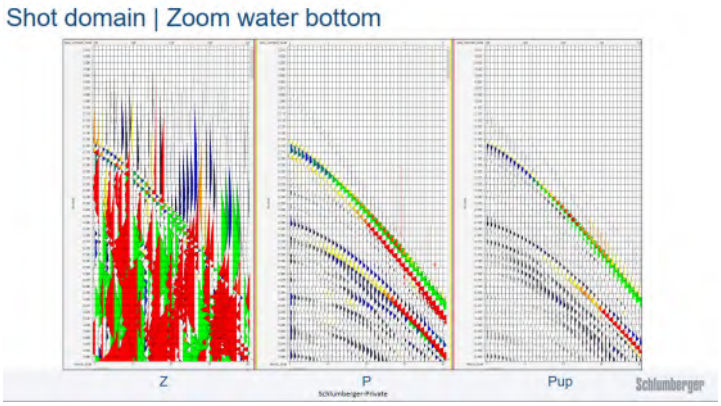
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We are looking for Gas



Tools we use – Seismic Data

- Subsurface work towards a 'drill target'
- This is a point (generally at 'top reservoir') that we ask the drillers to hit.
- The 'drill target' has a 'target tolerance': +/- 200m in the N-S and E-W direction



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Common Offshore Rig Types



Jack-up
6-100m Water Depth

Semi-Submersible
50-1000+m Water Depth





Drill Ship
600-3000+m Water Depth

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Drilling Process - Mooring

Anchors



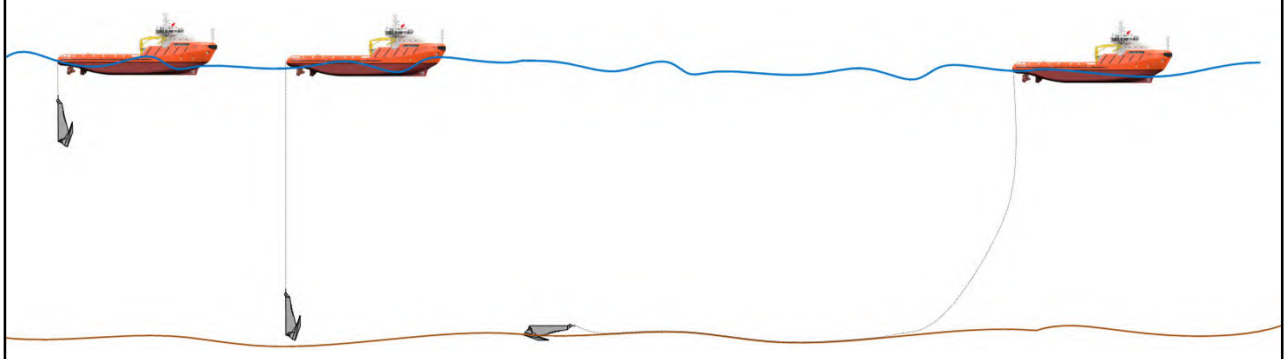


Anchors are ~ 20 metric ton with an additional 9 metric ton ballast

8-12 anchors required to hold rig on location

Drilling Process - Mooring

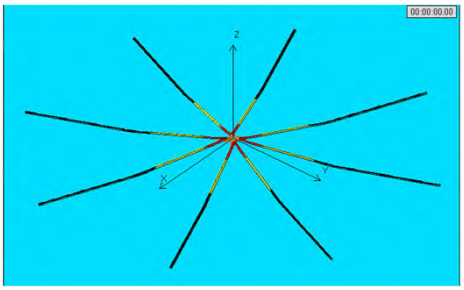
Anchor Installation – Pre-laid mooring

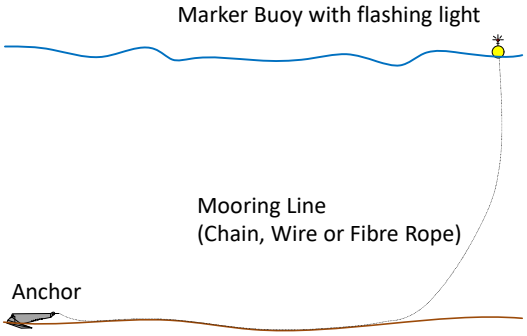


Drilling Process - Mooring

Anchor Installation – Pre-laid mooring

- Anchors may be pre-laid a few weeks before the rig arrives on location
- Rigs have between 8 and 12 anchors
- Navigation warnings will be in place via Notice to Mariners FM0





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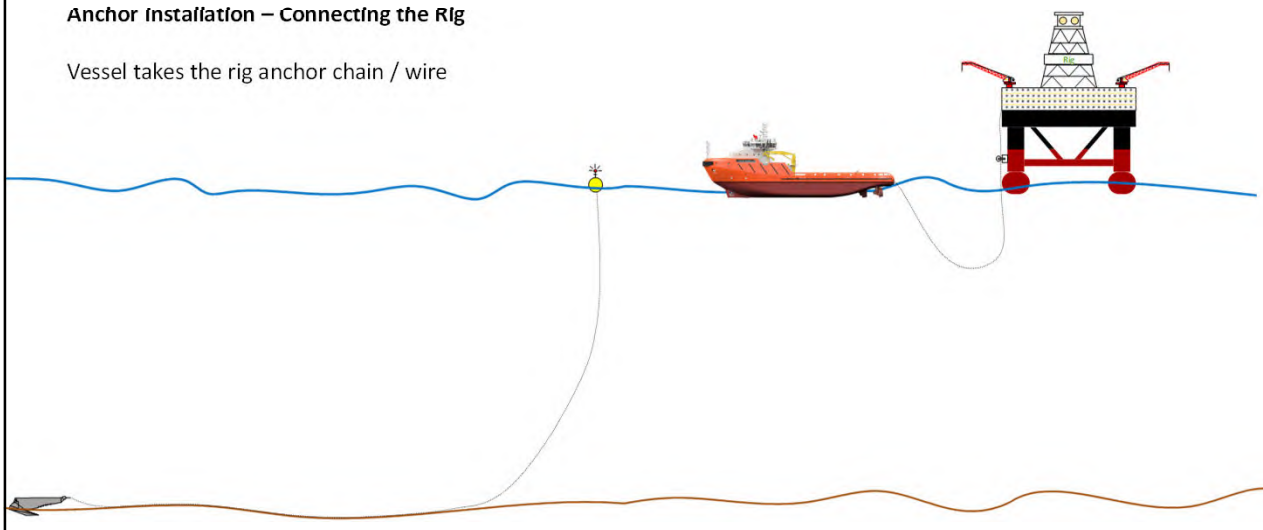
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Vessel takes the rig anchor chain / wire



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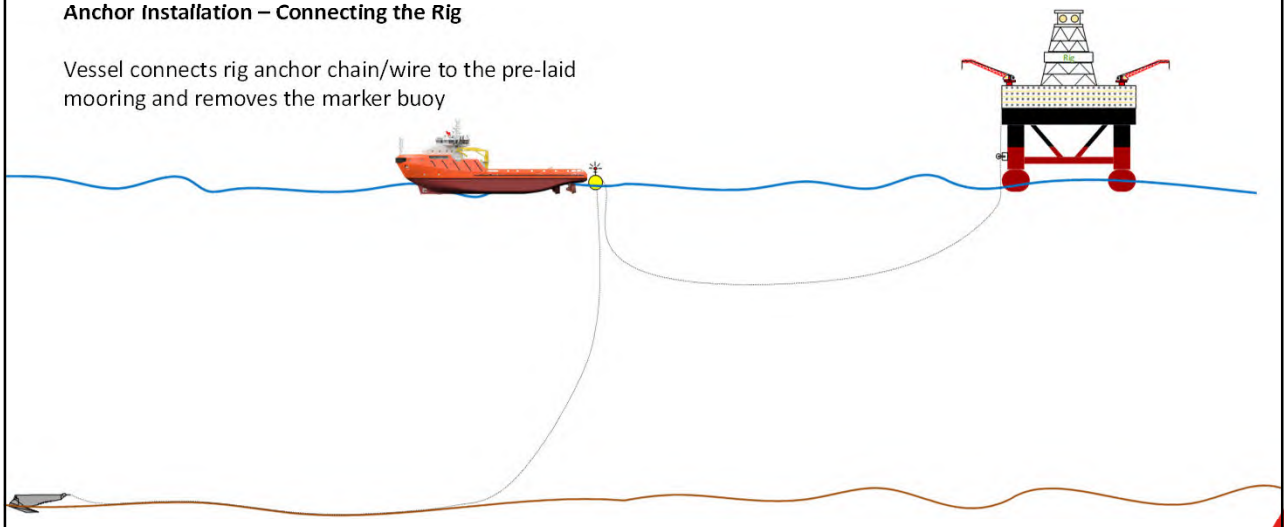
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Vessel connects rig anchor chain/wire to the pre-laid mooring and removes the marker buoy



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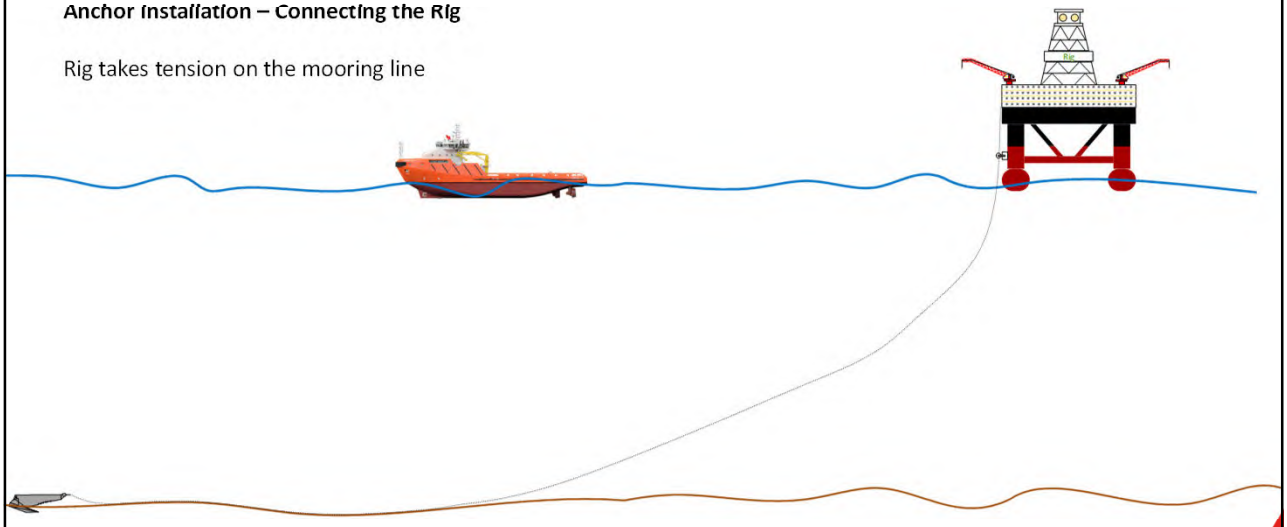
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Rig takes tension on the mooring line



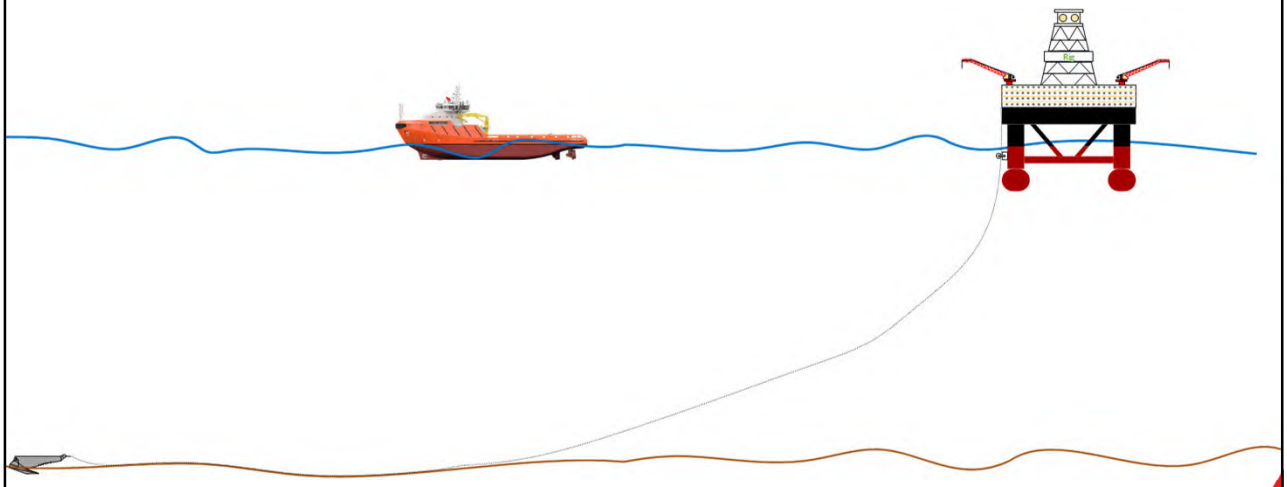
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Drilling Process - Mooring

Once anchors are connected – rig ballasts down to drilling draft



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Drilling Process – Drilling the well

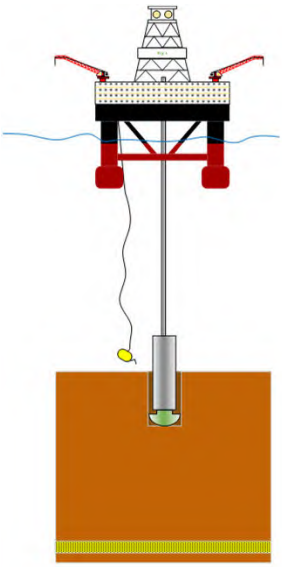
Spudding the well

FM0

- Drilling the foundation hole
- Typically 42” hole
- Drilled 60-100m below seabed



Drill bit and Hole Opener



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Drilling Process – Drilling the well

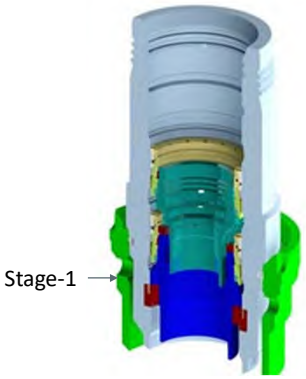
Installing the First Part of the Wellhead

FM0

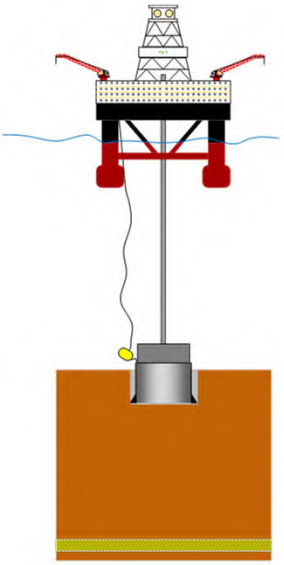
- 36” conductor pipe
- Stage 1 wellhead housing installed
- The conductor is cemented in place



Conductor Pipe



Subsea Wellhead System



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Drilling Process – Drilling the well

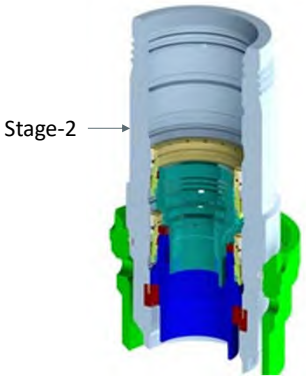
Drilling Surface Hole

- Drill 26” hole
- 20” Surface Casing
- Stage-2 wellhead housing installed
- Casing is cemented in place

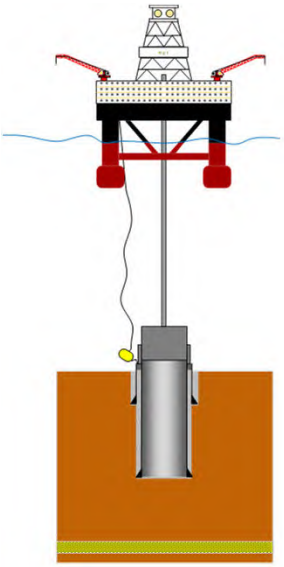




Well Casing



Subsea Wellhead System

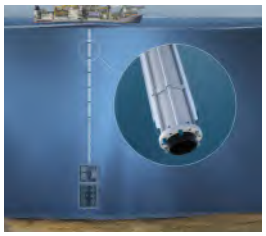


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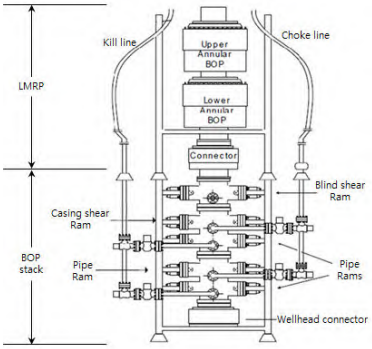
Drilling Process – Drilling the well

Installing the BOP and Riser

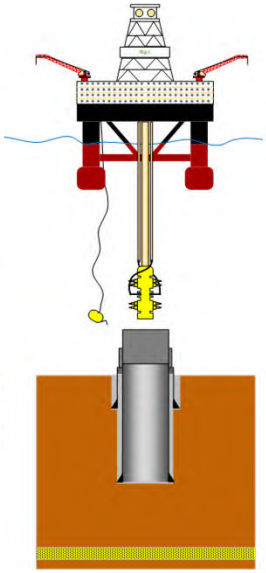


Well Casing





Subsea Wellhead System



Drilling Process – Drilling the well

Drilling the Intermediate Hole

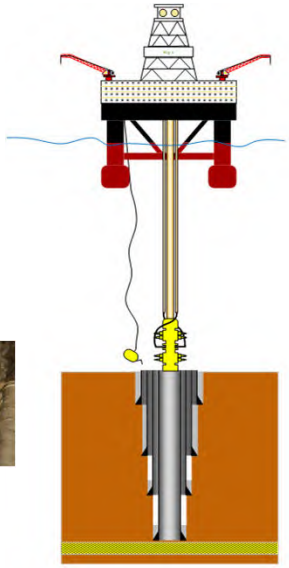
A. Primary Barrier
- Used to maintain "overbalance" to the pressure in the formation.
- The static hydrostatic pressure of the drilling fluid must be more than the pressure WITHIN the rock.

B. Using the drilling fluids
- Used to cool the drill bit and the wellbore.
- Transports cuttings to the surface.
- Water based muds contain barite and bentonite (natural minerals).
- Chemicals added as required.
- MUST go through chemical selection process per the Environment Plan.





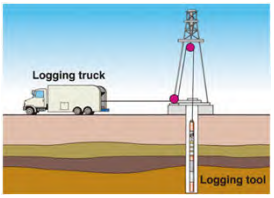
Drilling Fluids



Drilling Process – Drilling the well

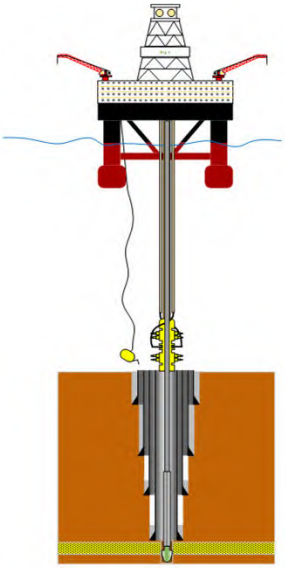
Drilling the Reservoir Hole and Evaluate Well

- Reservoir / Formation Evaluation
  - Used to establish key subsurface information
    - Formation type
    - Formation fluid type
    - Formation porosity and permeability
    - Formation pressure and flow characteristics
    - Sample reservoir fluids
  - MWD/LWD – performed whilst drilling
  - Wireline logging – after hole is drilled









Pictures from SLB, Paniz Energy & ANOG

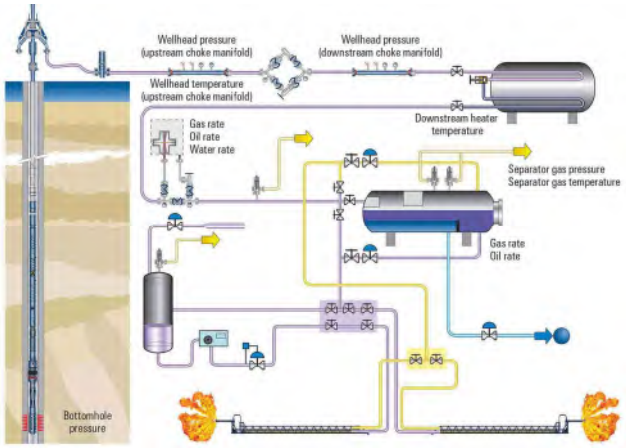
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FM0

Drilling Process – Well Testing

Well Testing determines the reservoir delivers hydrocarbons

- Not every well is tested.
- Typical to test “appraisal wells”.
- Typical used to fill the well with hydrocarbons for preparation of new production wells.



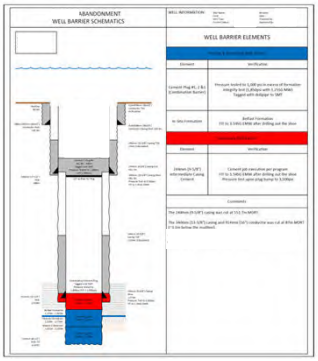
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Pictures from SLB

Drilling Process – Well Abandonment

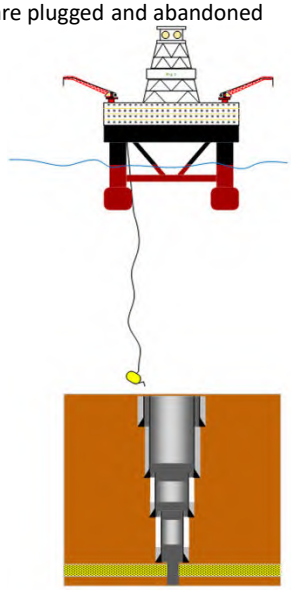
Following the drilling of exploration wells or at the end of a wells production life – wells are plugged and abandoned

- Set cement plugs to prevent the movement of formation fluids either to surface or into shallo FM0 formations.
- Removal of the wellhead at below seabed floor level.





Picture from Acteon



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Drilling Process – Equipment Used













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Drilling Process – Life Offshore

- Rosters are either 3 weeks on, 3 weeks off or 4 weeks on, 4 weeks off
- 12 hour shifts
- No alcohol.









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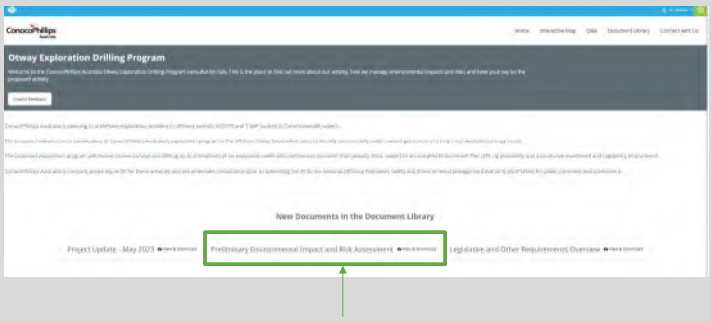
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Environmental Impacts and Risks

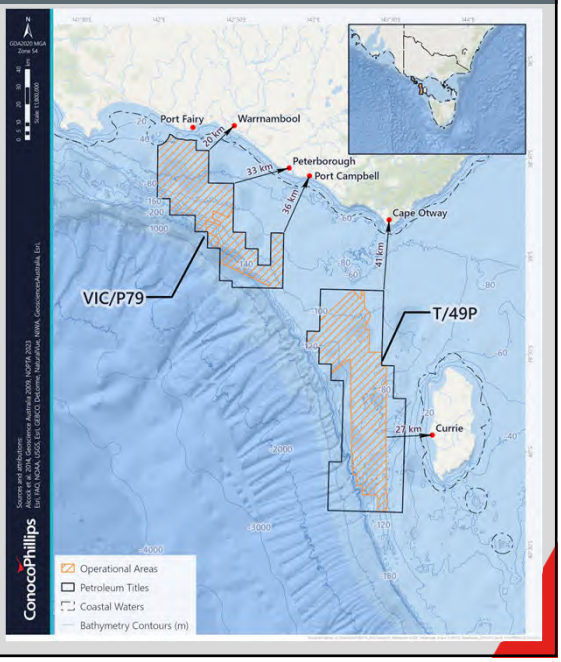
Preliminary Assessment

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Understanding the proposed activity



The Preliminary Environmental Impact and Risk Assessment is publicly available on the Consultation Hub



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Proposed Activity

Parameter	Seabed Survey	Drilling
Design Envelope – the broadest timeframe and spatial extent of the activity		
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells).
Spatial extent (within which activity can occur)	Operational Areas within T/49P and Vic/P79	Operational Areas within T/49P and Vic/P79
Operating Envelope – narrowing the timing and location of the activities to the current best estimates		
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km^2 (Nine locations, each 6 x 6 km) within Operational Areas	75 km^2 (Six locations, each a 2 km radius Drilling Area) within Operational Areas

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Desktop analysis to understand the existing environment

Physical Environment	Ecological Environment	Socio-economic Environment	Cultural Environment
• Water quality • Sediment quality • Air quality • Climate • Ambient light • Ambient Sound	• Benthic Habitats and Communities • Coastal Habitats and Communities • Plankton Invertebrates • Fish • Birds • Marine Reptiles • Marine Mammals • Conservation values and sensitivities	• Coastal Communities • Commercial Fisheries • Defence Activities • Offshore Petroleum Activities • Offshore Renewable Energy Activities • Other Offshore Infrastructure • Tourism • Recreational Diving and Fishing • Shipping	• First Nations Peoples • Native Title • Maritime Archaeological Heritage (including shipwrecks)

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Consideration to how our activity interacts with the existing environment

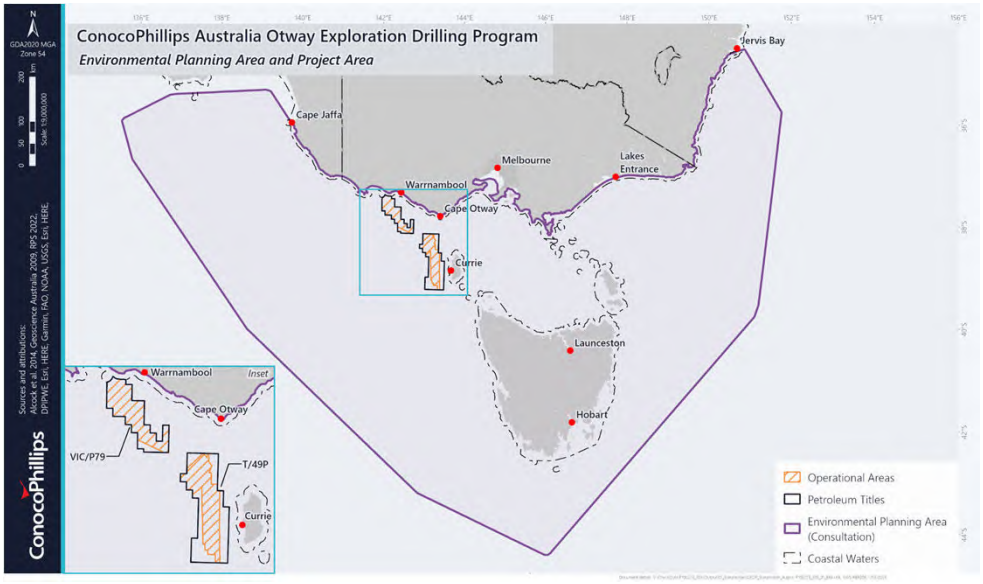
Environmental Impacts	Seabed Disturbance	• Seabed samples • Anchor placement
	Underwater Sound Emissions	• Underwater sound from drilling and support vessel. • Impulsive sound from seabed surveys.
	Atmospheric Emissions	• Emissions from survey and drilling activities.
	Planned Vessel/ Rig Discharges	• Routine discharges from support vessels and drilling rigs. • Cement, cuttings and drilling fluid.
	Interference with other Marine Users	• Short-term displacement.
	Light and Visual Amenity	• Potential visibility of drilling rig from coastline. • Routine light expected to be visible on horizon. • Potential visibility of flare from coastline.
Environmental Risks	Vessel based risks	• Loss of material or waste overboard. • Interactions with marine fauna. • Introduction and establishment of invasive marine species.
	Hydrocarbon related risks	• Minor loss of containment. • Marine diesel oil release. • Loss of well control release.

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Consultation to better understand environmental values and sensitivities

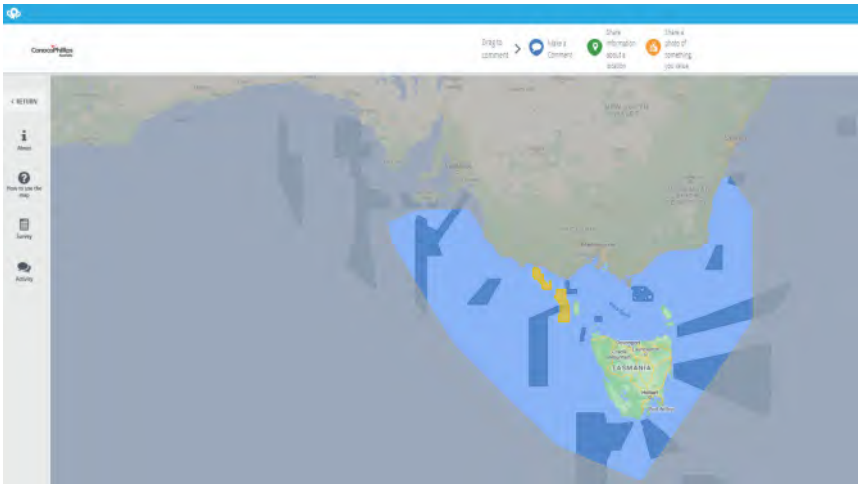


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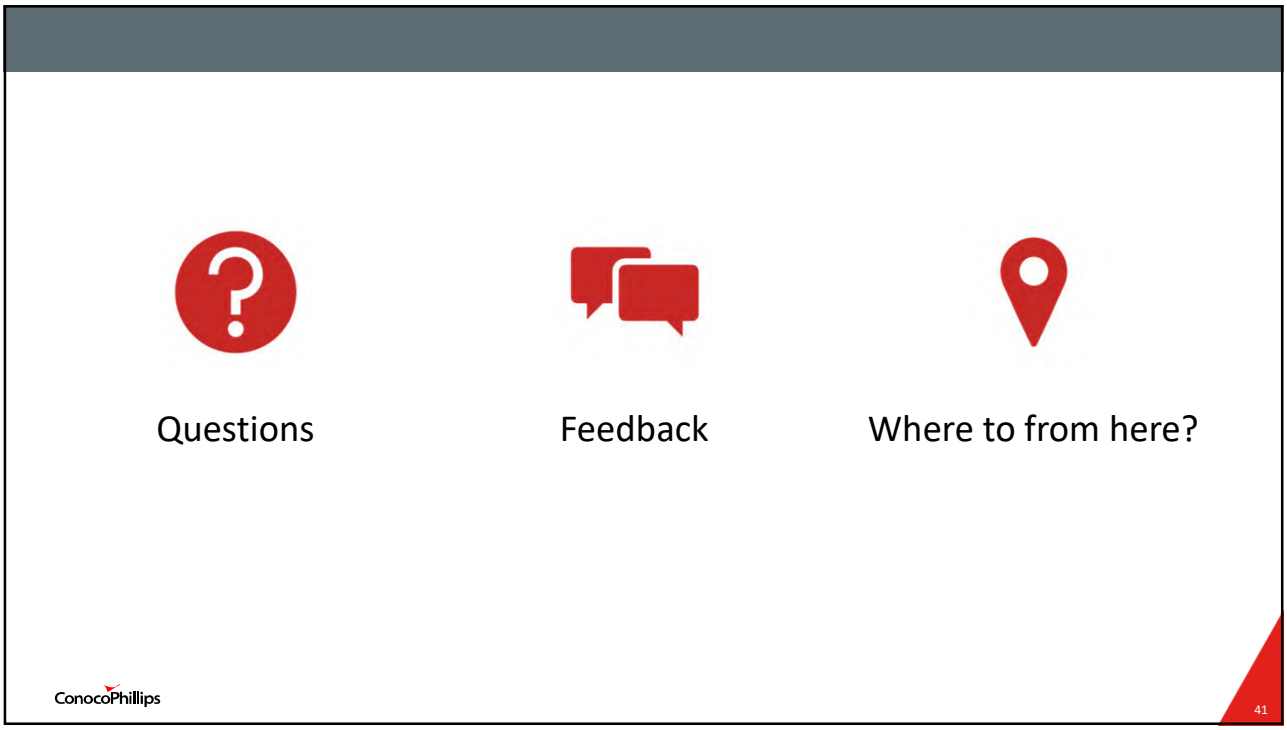
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Share your environmental values and sensitivities

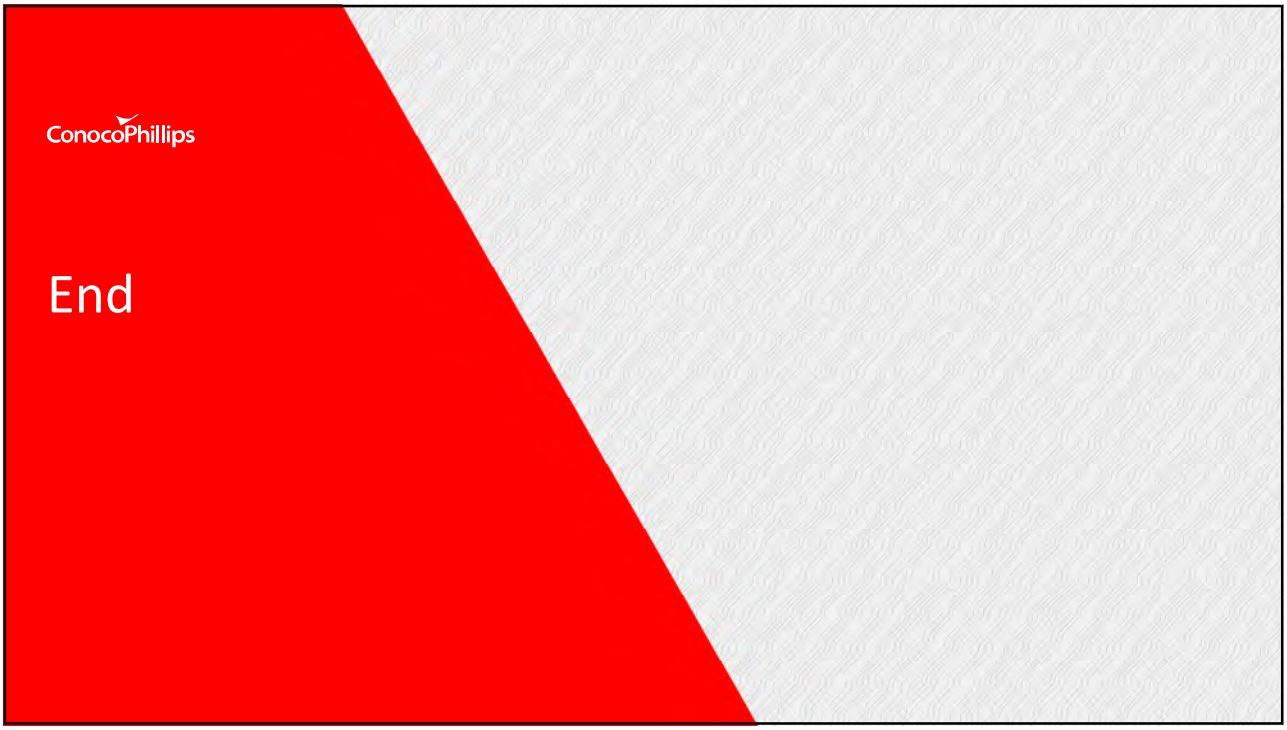


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Questions
Feedback
Where to from here?
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End

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Exploration Terms

NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority Independent expert regulator responsible for health and safety, structural (well) integrity and environmental management for offshore petroleum and greenhouse gas storage activities in Commonwealth waters.
NOPTA	National Offshore Petroleum Titles Administrator They are responsible for the day-to-day administration of petroleum & greenhouse gas titles in Commonwealth waters in Australia.
EP	Environment Plan A document submitted to NOPSEMA for assessment prior to the commencement of an activity, which contains information on environmental assessment, implementation of environmental management, details of the titleholder and other information specified in the Environment Regulations
Exploration Well	A well drilled to investigate an exploration prospect – usually the first well drilled in a field or area.
Seabed Survey	Seabed surveys are an important safety and environmental measure undertaken ahead of drilling activities. They typically involve geophysical and geotechnical sampling techniques that identify possible hazards and seafloor habitat to inform exploration well and drilling rig anchor placement.

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ConocoPhillips Australia's Response to Climate Change

- As a global organisation, ConocoPhillips embraces environmental stewardship as a fundamental business priority.
- We incorporate climate-related risk into our planning.
- Our climate risk strategy consists of actions consistent with the 2015 Paris Agreement goal to limit global temperature rise to well below 2 degrees Celsius.

Our commitment

- Strengthening our previously announced operational GHG emissions intensity reduction target to 40-50% by 2030 and expanding it to apply to both a gross operated and net equity basis to ensure active engagement in our non-operated investments.
- Meeting a further 10% reduction target for methane emissions intensity by 2025 from our 2019 baseline, building upon the 65% reduction we have made since 2015.
- Achieving near-zero methane emissions intensity by 2030.
- Achieving a target of zero routine flaring by 2025, five years sooner than the World Bank initiative's goal of 2030.

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Otway Exploration Drilling Program

Webinar 2

26 July 2023

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Recording Notice

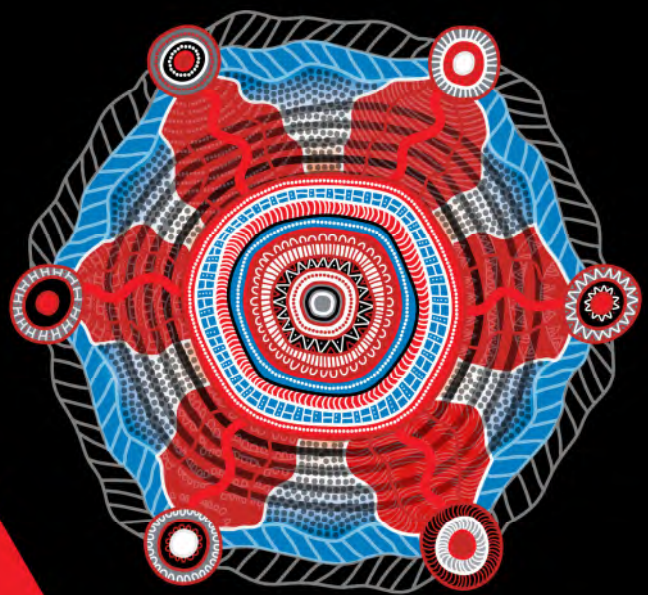
This public information session will be recorded (video, audio and content) and photographs may be taken. The recording and any photographs may be used and distributed by ConocoPhillips Australia as part of its stakeholder engagement/consultation and associated purposes. By attending this session, you consent to this.

ConocoPhillips Australia collects and deals with personal information in accordance with our privacy policy, available at https://www.conocophillips.com.au/privacy-policy/legal-privacy-australia/.

2

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ConocoPhillips Australia acknowledges the Aboriginal and Torres Strait Islander peoples as the First Nations Peoples and Traditional Custodians of this land, and we pay our respects to Elders past and present. We celebrate the Aboriginal and Torres Strait Islander peoples' long histories, rich cultures and connection to the land, water and air.



3

Tonight's Webinar

- Overview of the proposed exploration drilling activity.
- Overview of the consultation process
- Share feedback received through consultation
- Overview of initial environmental impact and risk assessments
- Questions and feedback

4

Otway Exploration Drilling Program

Areas:

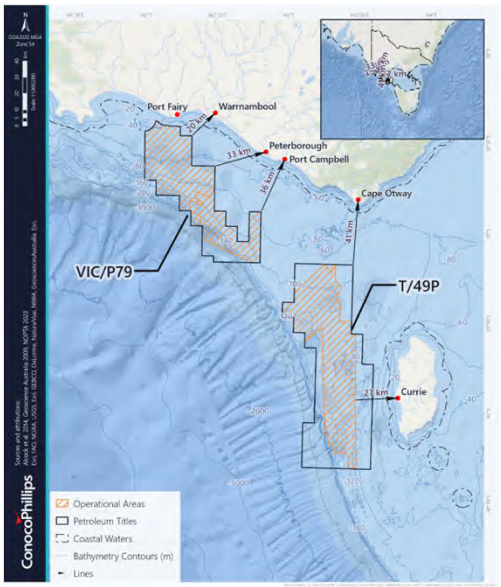
- VIC/P79 and T/49P
- ConocoPhillips Australia holds an 80% interest and operatorship of both permits.

Key Permit Prospects Characteristics:

- Offshore Otway Basin
- Water depth range 35-1400m, predominantly ~100m
- Adjacent to producing Thylacine, Geographe, Casino, and Henry gas fields.

Existing permit commitments:

- T/49P commitment of one exploration well.
- VIC/P79 commitment of one exploration well.



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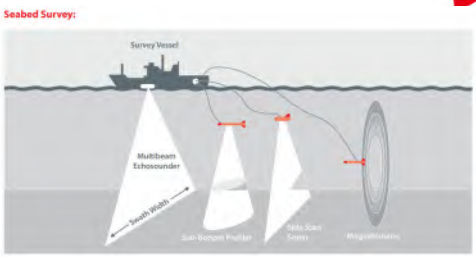
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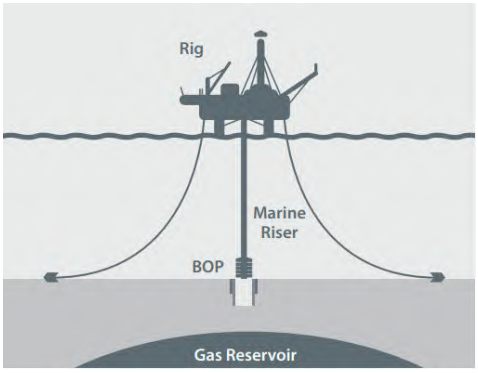
Otway Exploration Drilling Activities

1. **Seabed Hazard Survey involves:**
   - ~6 km^2 per site area at up to 9 locations
   - Vessel operations
   - Geophysical survey
   - Geotechnical sampling
   - Imagery

2. **Exploration Drilling involves:**
   - Mobile offshore drilling unit operations
   - Support vessels, remote operated vehicle, aircraft
   - Anchor placement/removal
   - Evaluation and testing (flaring)
   - Plug and Abandon all wells

Environment Plan and associated impact and risk assessment based on maximum of 6 wells over 5yrs.

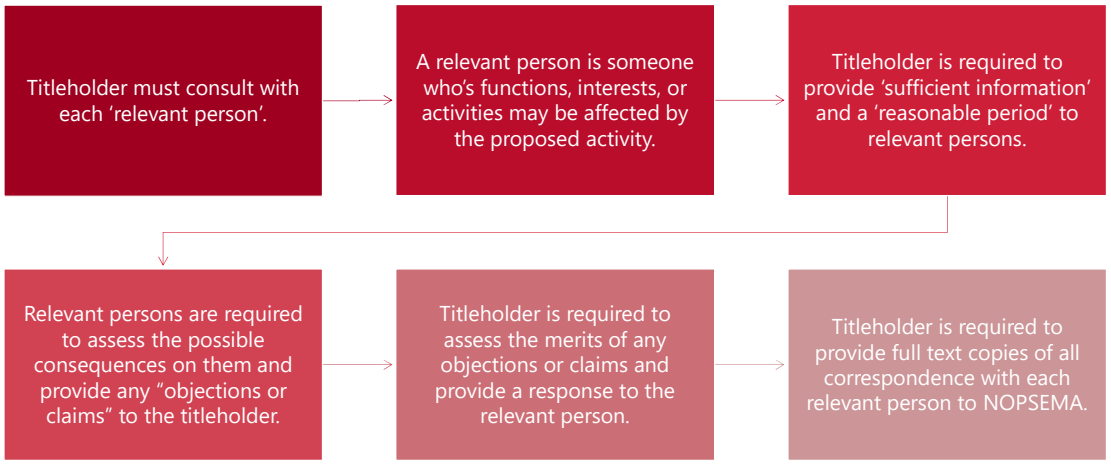




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The Consultation Process



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Feedback from Consultation

8

Climate

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Why do we need more gas if we are trying to address climate change.	Exploration activities in the Otway Basin are meant to help meet Australia's ongoing energy needs. Gas is a resource that is vital to our daily lives and our economy. It is used in the manufacture of many of the products we consume and is used to heat homes and businesses and generate electricity. The steep decline in gas being supplied in Victoria indicated new supply is required to ensure ongoing energy security.	We register every view provided to our regulator in the Sensitive Information Chapter of the EP. We provide relevant person concerns to the development and strategy teams.

9

Activity

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
The only acceptable level of impact for this activity is zero impact.	Exploration activities do not operate to a zero-impact standard. Instead, ConocoPhillips Australia is required to define the acceptable level of impact and work below that level. Acceptable levels of impact are established based on relevant up-to-date technical and scientific studies, government advice, and are considerate of the information gathered through the consultation process.	ConocoPhillips is looking for further information from individuals about key values and sensitivities that need to be protected.
There is already seismic over these areas, you shouldn't have to do this again.	The Otway Exploration Drilling Program is not proposing seismic acquisition as part of its activity.	Clarifying proposed activity with all individuals that make this claim, including providing information for current titleholders and proponents proposing to undertake seismic acquisition in the region.

10

Consultation

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Not everyone can attend a public information session.	ConocoPhillips Australia values consultation and feedback and invites any and all information on how we can continue to improve our consultation with individuals, groups and organisations potentially affected by the proposed activities to help inform the development of the EP.	ConocoPhillips Australia has included the webinar format to support ongoing consultation. Webinars are recorded and loaded to the consultation hub for individuals to review if they are unable to attend.
Documents are difficult to find on the consultation hub	ConocoPhillips Australia acknowledges there is a lot of information available via our consultation hub.	ConocoPhillips Australia added a large banner section on the home page of the consultation hub linking visitors to the document library.

11

Marine Fauna

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
The Victorian and Tasmanian Coastline is critical habitat for many marine fauna, especially whales. Any impact to these animals would be unacceptable.	The conservation management plans published by the Department of Climate Change, Energy, the Environment, and Water allow for some level of impact, typically behavioural responses.	All activities will comply with a Marine Mammal Adaptive Management Procedure outlining specific actions to minimise impacts from anthropogenic noise in accordance with Conservation Management Plans. Vessels will adhere to an increased caution zone of 500 m between whales and vessels. ConocoPhillips Australia will develop and implement a Light Management Plan as per the National Light Pollution Guidelines for Wildlife, for the activity to minimise impacts to seabirds. Flaring will be restricted to a maximum of 120 hours per well and will only be conducted in the event that hydrocarbons are discovered to ensure safe disposal. Activity-specific emergency preparedness and response plans and capability will be in place prior to activity commencement.

12

Commercial Fishing

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Activities may impact commercial fishing operators' ability to undertake regular activities.	ConocoPhillips Australia is aware that the Otway Exploration Drilling Program may interfere with the operation of Commonwealth and State fisheries and result in temporary displacement.	Exclusion zones will be put in place prior to the commencement of seabed survey and drilling activities. These will be communicated via notices to mariners. ConocoPhillips Australia is committed to having a commercial fishing adjustment protocol in place prior to the commencement of the drilling program which will address economic impact as a result of displacement.
Fishers are unable to make an informed assessment as there are no defined drilling locations.	ConocoPhillips Australia is developing an Environment Plan that assesses the potential impacts and risks associated with exploration activities over larger operational areas within each of permit areas. We understand that this may result in an overestimation of impacts and risks that are specific to functions, interests and activities.	Maps with latitude and longitude coordinates have been provided to support ongoing consultation with the commercial fishing industry. We've requesting feedback from fishers in relation to potential interactions over the larger operational areas, and the broader Environmental Planning Area, to ensure that we can address any concerns they may have.

Coastal and Other Marine Users

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Activities may impact the regular use of the marine environment.	The Otway Exploration Drilling Program may affect the activities of other marine and coastal users. For example, the physical presence of seabed survey vessels, the drilling rig and support vessels used for the activity, and the establishment of exclusion zones, may result in the displacement of other marine users engaging in activities such as recreational and commercial fishing. Other short-term petroleum activities, for example Vertical Seismic Profiling (VSP), have the potential to cause additional displacement if conducted in close proximity to coastal areas, with sound emissions from VSP limited to a maximum of 20 hours per well.	Exclusion zones will be put in place prior to the commencement of seabed survey and drilling activities. These will be communicated via notices to mariners. A Communication Plan will be prepared to ensure that relevant persons are aware and informed of the activity. ConocoPhillips Marine Assurance System ensures that project vessels meet all maritime laws and includes pre commencement vessel inspections of class certification requirements.

Unexploded Ordnance

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
There are historic ordnance dumps in and around where your planned activities are.	The risks associated with UXO were assessed to establish a 'UXO Risk Profile' for the permit areas. This risk profile considers the probability of encountering UXO, the probability of UXO detonation, and the consequence of detonation. Encountering UXOs within the permit areas is considered low risk for all activities, except for some activities involving subsea equipment. The risk of a UXO being snagged by equipment, for example when collecting seabed samples, and subsequently being brought onto a vessel was assessed as Moderate.	Conducting seabed surveys using speciality equipment to detect the presence of metals and collect seabed images, to inform activities that interact with the seafloor or sediments. Delivering an explosives safety awareness briefing to personnel carrying out seabed survey and exploration drilling activities. Maintaining on-call access to an explosives engineer to provide specialist advice in the unlikely event of UXO encounter.

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Environmental Impacts and Risks

Initial Assessment

16

Desktop analysis to understand the existing environment

Physical Environment	Ecological Environment	Socio-economic Environment	Cultural Environment
• Water quality • Sediment quality • Air quality • Climate • Ambient light • Ambient Sound	• Benthic Habitats and Communities • Coastal Habitats and Communities • Plankton Invertebrates • Fish • Birds • Marine Reptiles • Marine Mammals • Conservation values and sensitivities	• Coastal Communities • Commercial Fisheries • Defence Activities • Offshore Petroleum Activities • Offshore Renewable Energy Activities • Other Offshore Infrastructure • Tourism • Recreational Diving and Fishing • Shipping	• First Nations Peoples • Native Title • Maritime Archaeological Heritage (including shipwrecks)

17

Consideration to how our activity interacts with the existing environment

Environmental Impacts	Seabed Disturbance	• Seabed samples • Anchor placement
	Underwater Sound Emissions	• Underwater sound from drilling and support vessel. • Impulsive sound from seabed surveys and formation evaluation.
	Atmospheric Emissions	• Emissions from survey and drilling activities.
	Planned Vessel/ Rig Discharges	• Routine discharges from support vessels and drilling rigs. • Cement, cuttings, drilling fluid and other minor sources.
	Interference with other Marine and Coastal Users (including visual amenity)	• Short-term displacement. • Potential visibility of drilling rig and vessels from the coastline
	Light	• Biological and ecological effects. • Potential visibility of routine lighting on the horizon • Potential visibility of flaring from the coastline.
Environmental Risks	Vessel based risks	• Loss of material or waste overboard. • Interactions with marine fauna. • Introduction and establishment of invasive marine species.
	Hydrocarbon related risks	• Minor loss of containment. • Marine diesel oil release. • Loss of well control release.

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Questions and Feedback

ConocoPhillips

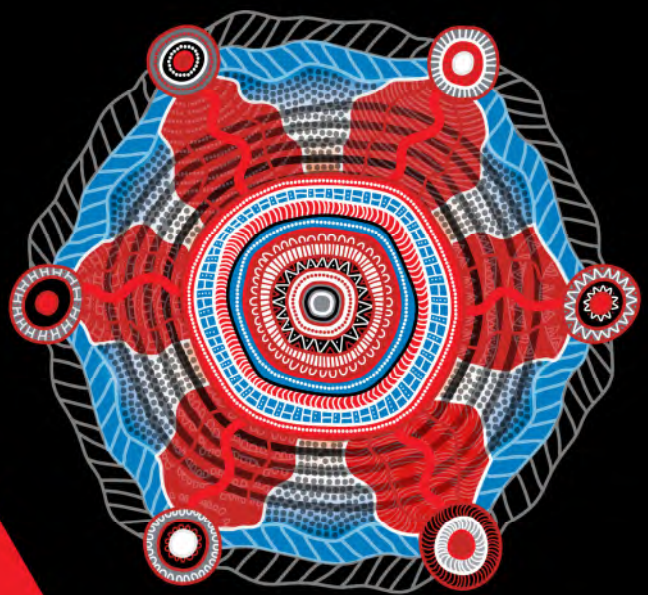
Otway Exploration Drilling Program

June 2023

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ConocoPhillips

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11/9/2023

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Seeking Relevant Persons

- ConocoPhillips Australia is seeking to understand functions, interests or activities that may be affected by the proposed Otway Exploration Drilling Program.
- This information, along with the assessment of impacts and risks, determines if an individual or organisation is a 'relevant person'.
- A relevant person is a mandatory consultee under the Regulations.
- This is an information session is to provide you information as an individual, about whether you are a Relevant Person under the process and regulations.

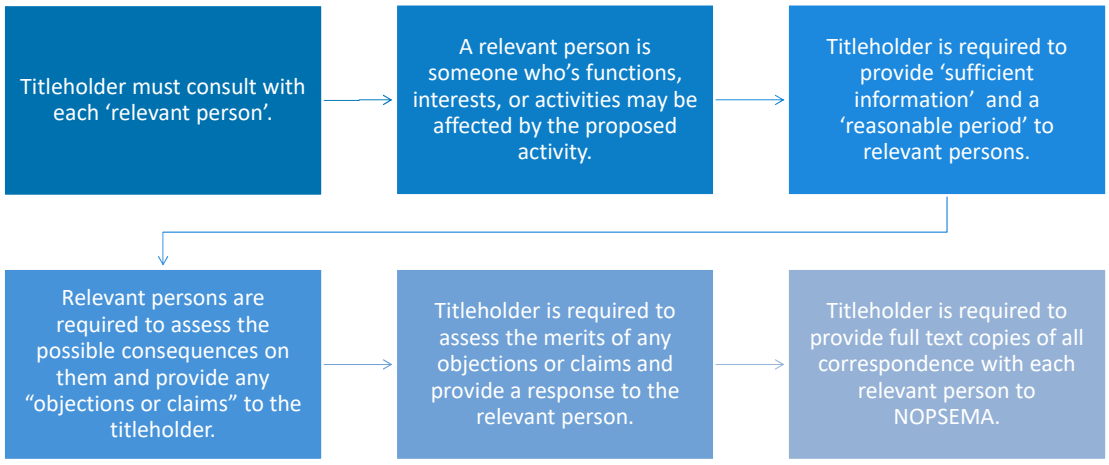
ACTION REQUIRED: Register as a relevant person via the consultation hub by advising ConocoPhillips Australia of your functions, interests or activities.

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The Consultation Process



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ConocoPhillips Australia

ConocoPhillips Australia was established almost two decades ago.

- We are a shareholder in Australia Pacific LNG (APLNG) and operate the APLNG facility on Curtis Island, in Queensland.
- We are headquartered in Brisbane, QLD.
- We have more than 50 years offshore experience globally (starting in the North Sea off UK and Norway and including offshore between northern Australia and Timor Leste).

Current exploration portfolio

Two permits in the offshore Otway Basin:

- T/49P
- VIC/P79



APLNG facility on Curtis Island in the Gladstone Region, Queensland.

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11/9/2023

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Otway Exploration Drilling Program

Areas:

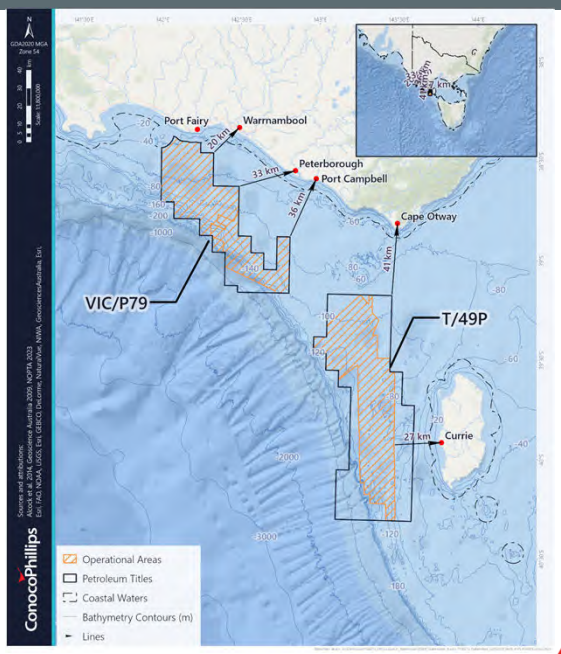
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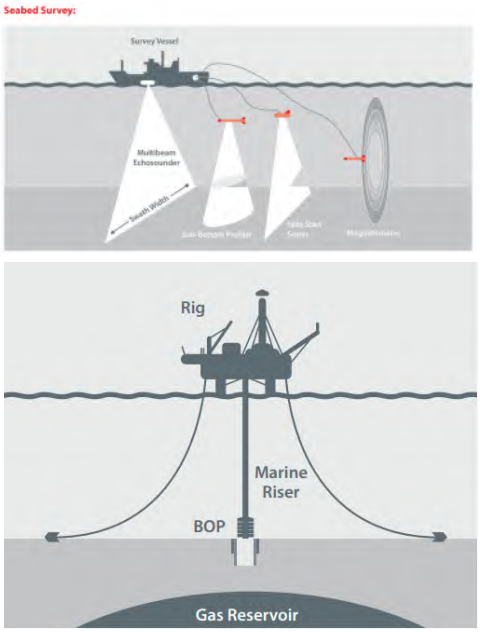
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Otway Exploration Drilling Activities

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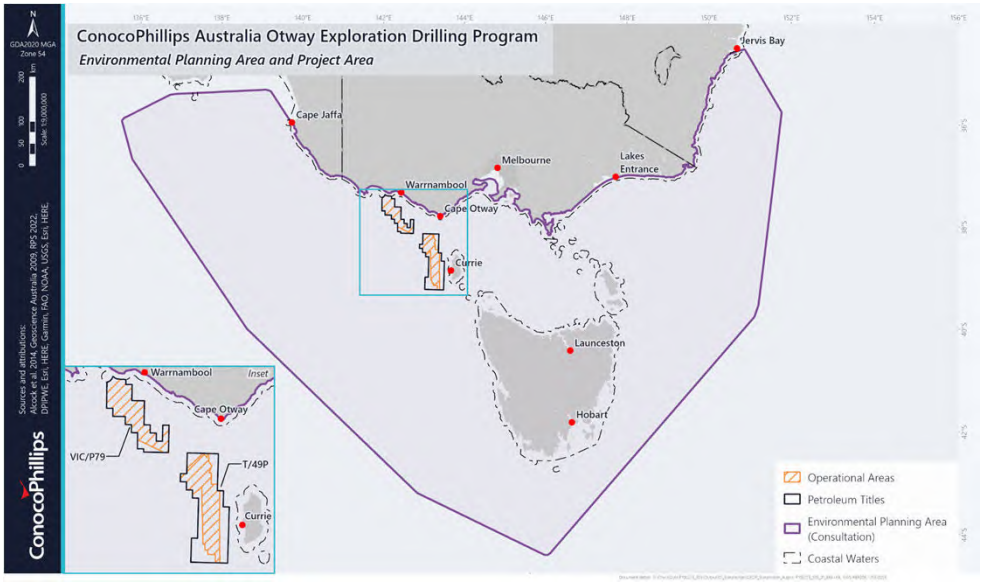


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Consultation to better understand environmental values and sensitivities

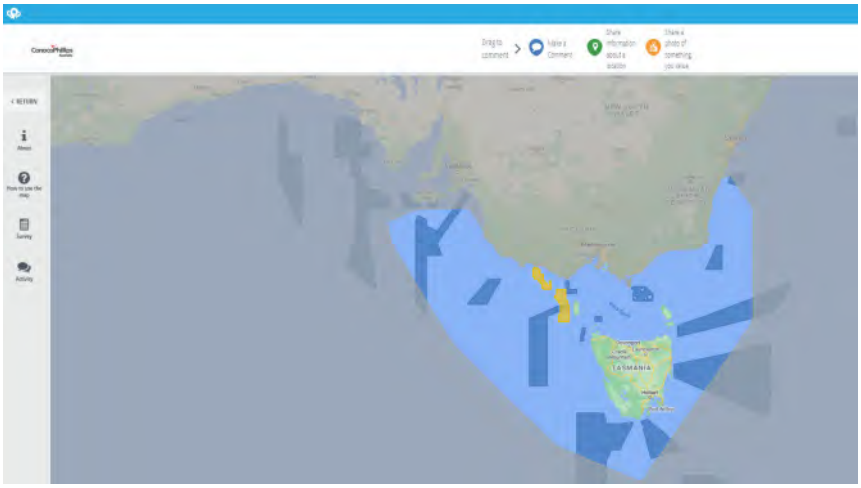


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Share your environmental values and sensitivities



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Feedback from Consultation

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Climate

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Coastal and Other Marine Users

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Unexploded Ordnance

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Environmental Impacts and Risks

Initial Assessment

16

Desktop analysis to understand the existing environment

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Consideration to how our activity interacts with the existing environment

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	Planned Vessel/ Rig Discharges	• Routine discharges from support vessels and drilling rigs. • Cement, cuttings and drilling fluid.
	Interference with other Marine Users	• Short-term displacement.
	Light and Visual Amenity	• Potential visibility of drilling rig from coastline. • Routine light expected to be visible on horizon. • Potential visibility of flare from coastline.
Environmental Risks	Vessel based risks	• Loss of material or waste overboard. • Interactions with marine fauna. • Introduction and establishment of invasive marine species.
	Hydrocarbon related risks	• Minor loss of containment. • Marine diesel oil release. • Loss of well control release.

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Questions and Discussion

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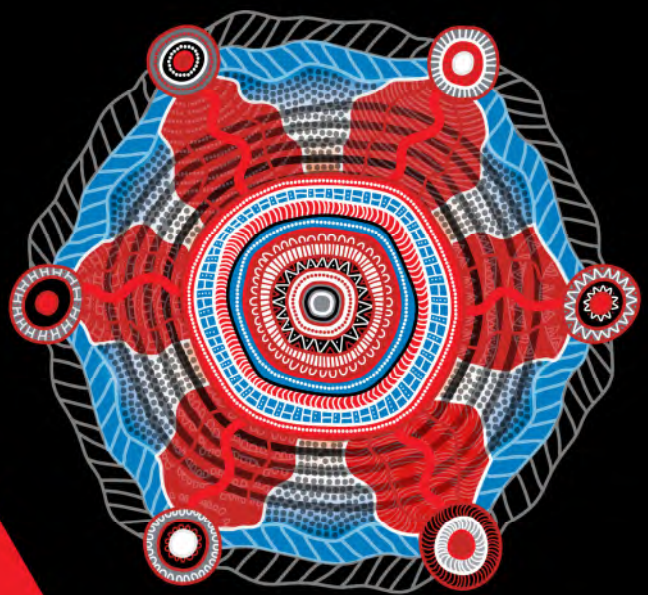
Otway Exploration Drilling Program

King Island: 13 July 2023

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ConocoPhillips

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11/9/2023

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Otway Exploration Drilling Program

Areas:

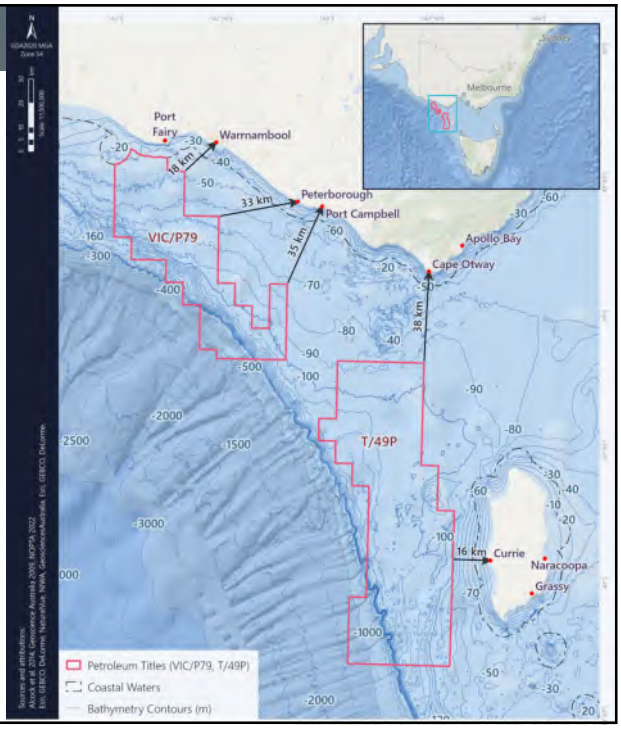
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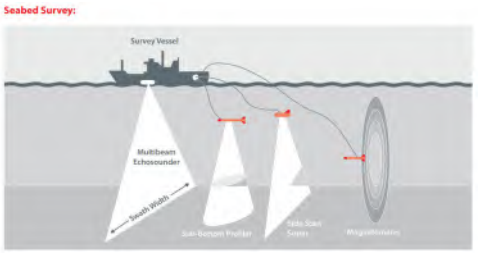
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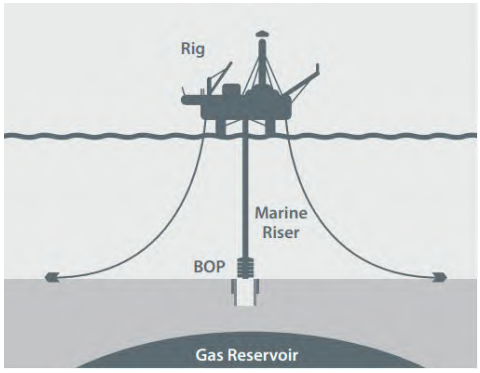
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Otway Exploration Drilling Activities

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Offshore Regulation Overview

The Basics

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The Environment Regulations



The Regulations place the burden of proof on the titleholder:

Recognises environments are all different

Titleholder must do the work to justify it environmental standards

Our propositions are independently scrutinized by Government



The Regulations have three foundational concepts:

Principles of ecologically sustainable development.

Environmental impacts and risks must be of an acceptable level.

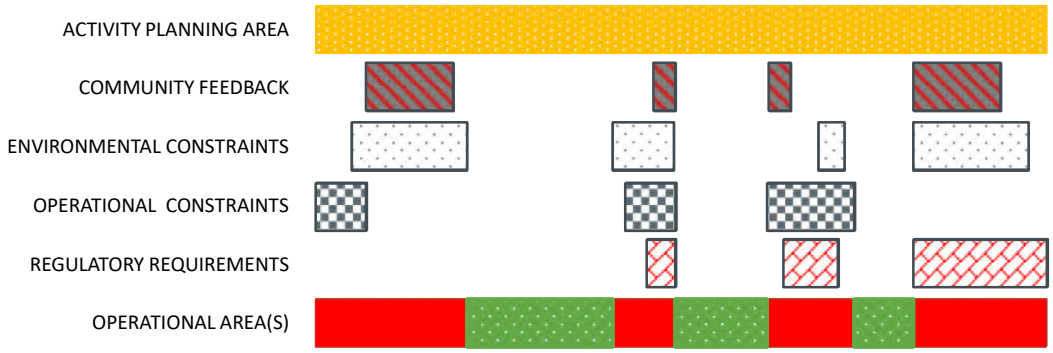
Environmental impacts and risks must be managed to as low as reasonably practicable.

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Activity Planning Process



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The Consultation Process

Titleholder must consult with each 'relevant person'.

A relevant person is someone who's functions, interests, or activities may be affected by the proposed activity.

Titleholder is required to provide 'sufficient information' and a 'reasonable period' to relevant persons.

Relevant persons are required to assess the possible consequences on them and provide any "objections or claims" to the titleholder.

Titleholder is required to assess the merits of any objections or claims and provide a response to the relevant person.

Titleholder is required to provide full text copies of all correspondence with each relevant person to NOPSEMA.

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Offshore Drilling

The Basics

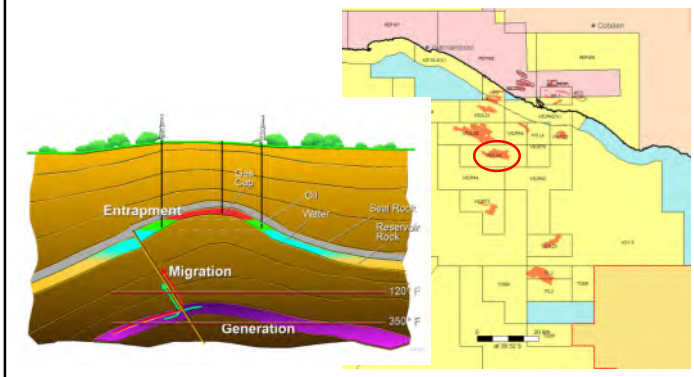
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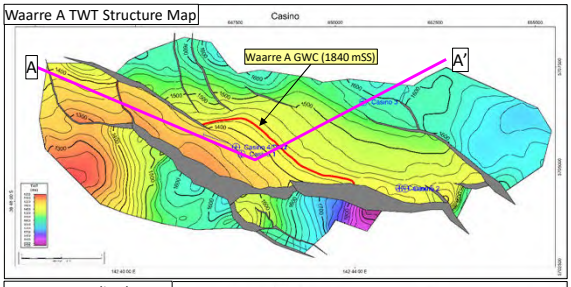
Drilling Terms

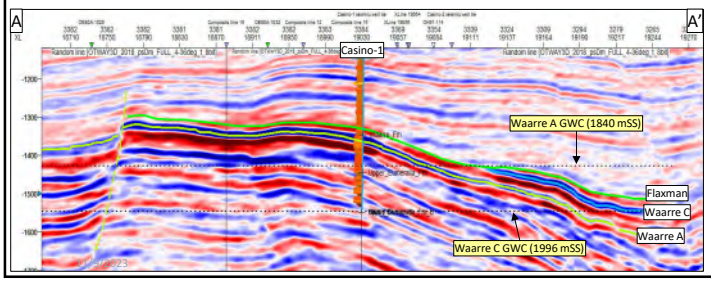
MODU	Mobile Offshore Drilling Unit (Rig)
AHSV	Anchor Handling Supply Vessel (Boat)
Exploration Well	A well drilled to investigate an exploration prospect – usually the first well drilled in a field or area
Appraisal Well	The wells drilled following the initial discovery well – usually drilled to identify the extent of a discovery or to gather more information
Production Well	A well drilled for the purpose of producing hydrocarbons
BOP	Blowout Preventer – a series of high pressure valves that prevent the flow of formation fluids to the environment
MWD/LWD	Measurement While Drilling and Logging While Drilling – drilling tools that contain measurement sensors that transmit data to surface real time.

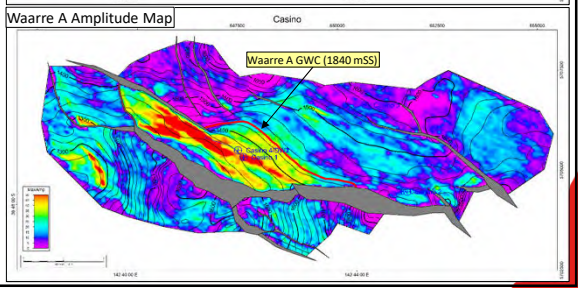
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We are looking for Gas









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Common Offshore Rig Types



Jack-up
6-100m Water Depth

Semi-Submersible
50-1000+m Water Depth





Drill Ship
600-3000+m Water Depth

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Drilling Process - Mooring

Anchors





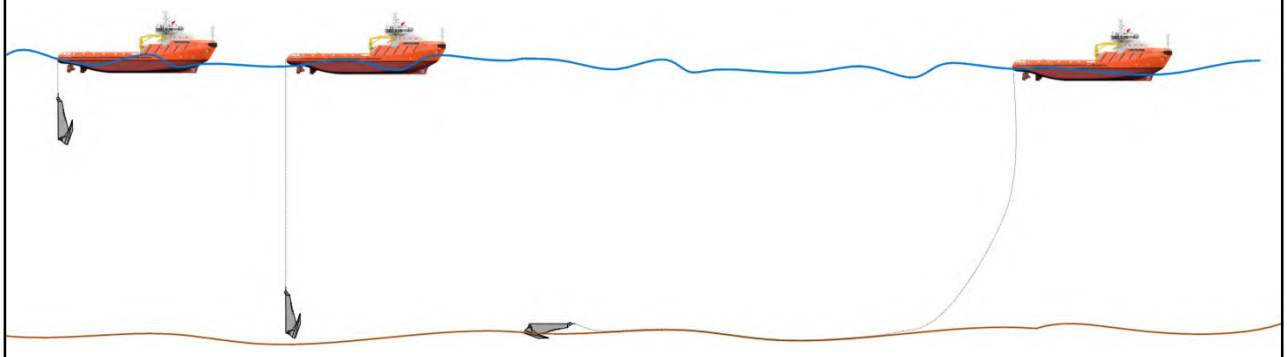
Anchors are ~ 20 metric ton with an additional 9 metric ton ballast

8-12 anchors required to hold rig on location

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Drilling Process - Mooring

Anchor Installation – Pre-laid mooring

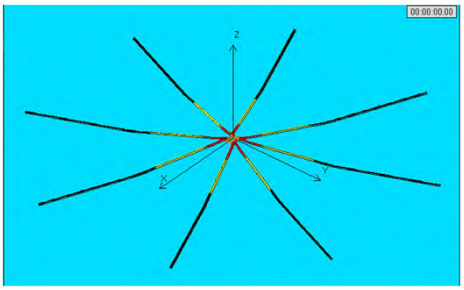


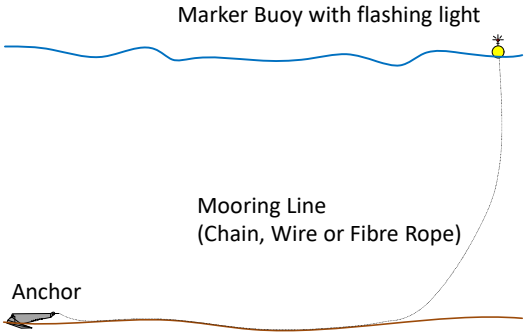
14

Drilling Process - Mooring

Anchor Installation – Pre-laid mooring

- Anchors may be pre-laid a few weeks before the rig arrives on location
- Rigs have between 8 and 12 anchors
- Navigation warnings will be in place via Notice to Mariners





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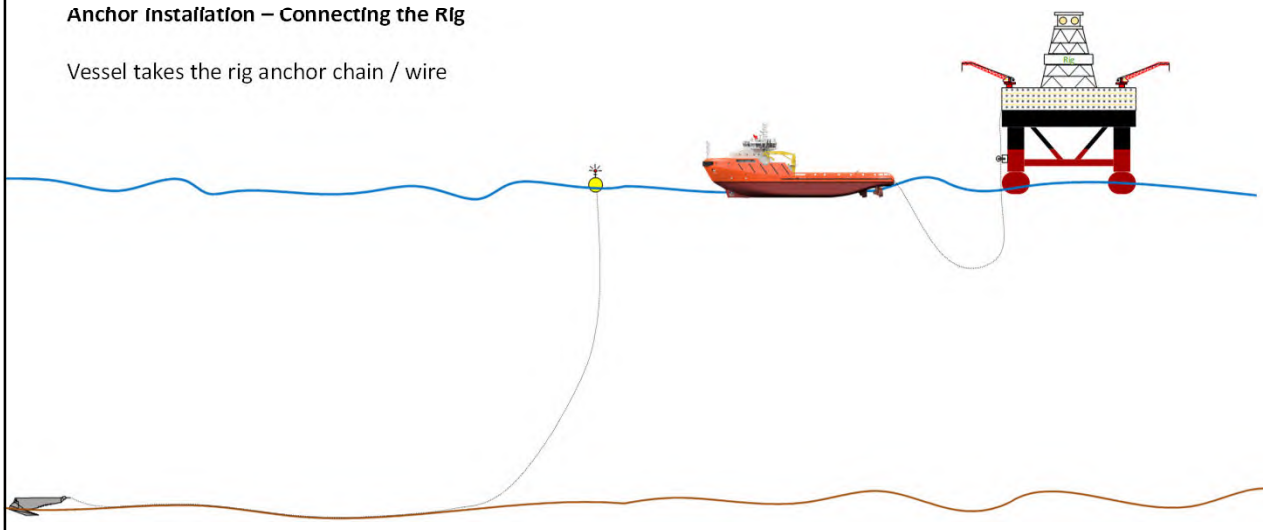
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Vessel takes the rig anchor chain / wire



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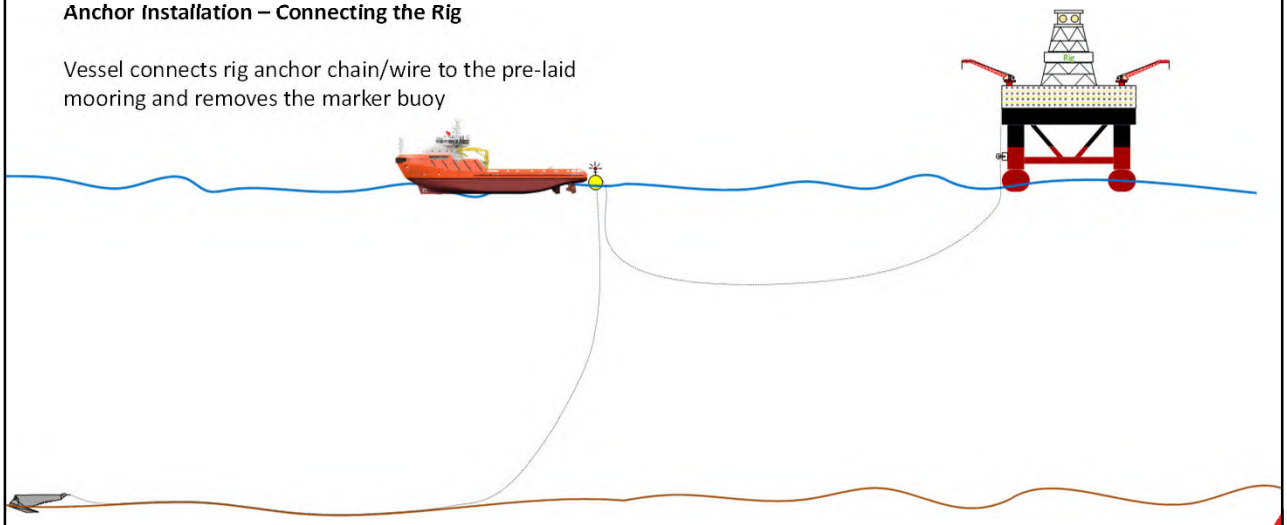
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Vessel connects rig anchor chain/wire to the pre-laid mooring and removes the marker buoy



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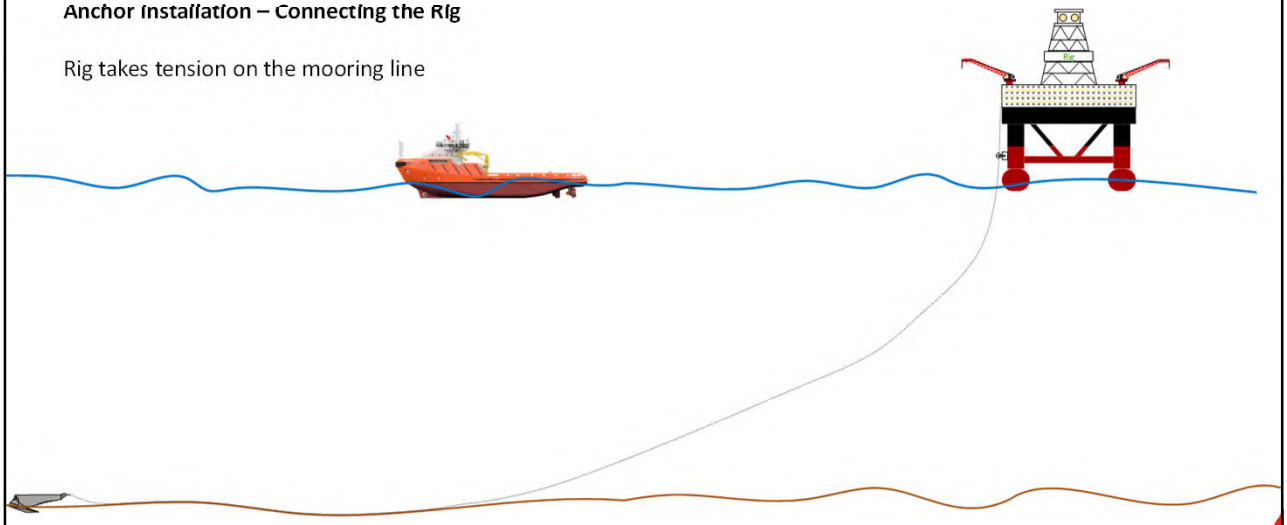
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Drilling Process - Mooring

Anchor Installation – Connecting the Rig

Rig takes tension on the mooring line



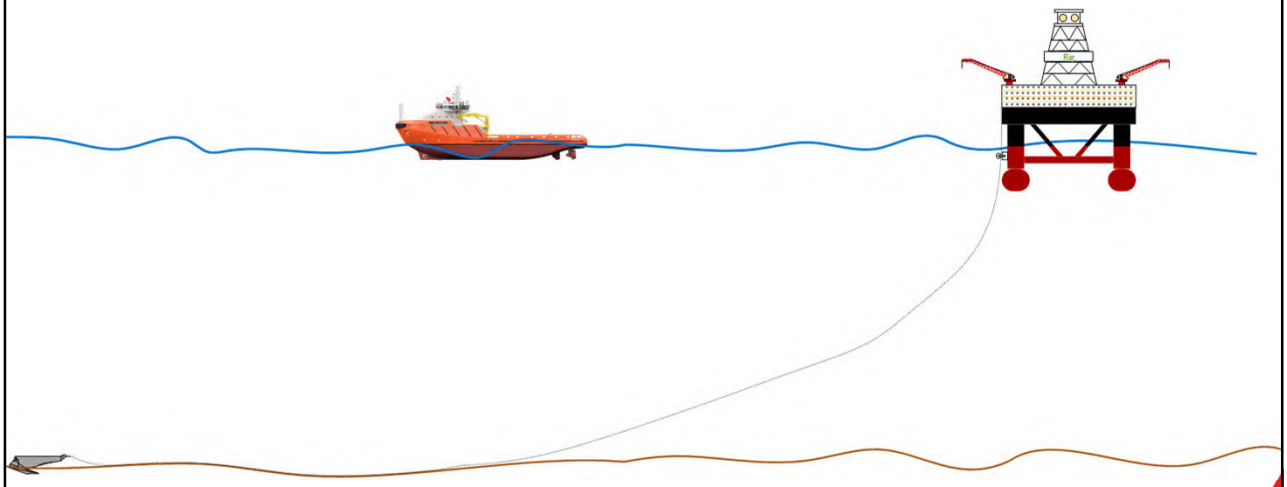
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Drilling Process - Mooring

Once anchors are connected – rig ballasts down to drilling draft



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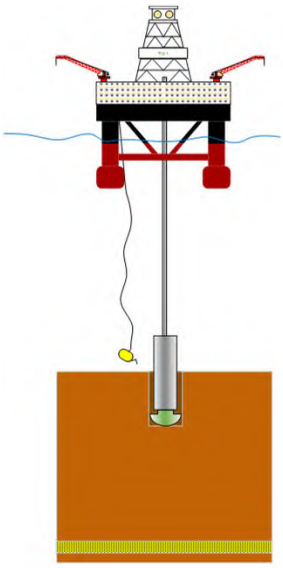
Drilling Process – Drilling the well

Spudding the well

- Drilling the foundation hole
- Typically 42” hole
- Drilled 60-100m below seabed



Drill bit and Hole Opener



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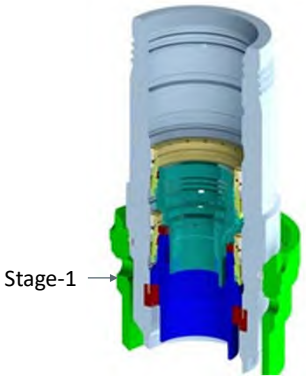
Drilling Process – Drilling the well

Installing the First Part of the Wellhead

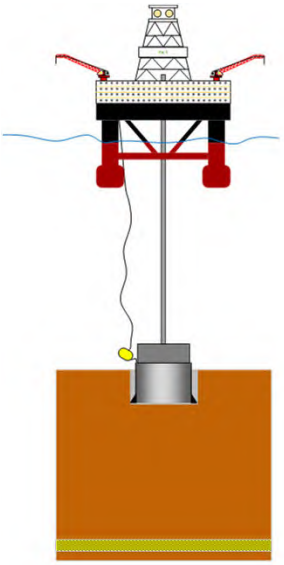
- 36” conductor pipe
- Stage 1 wellhead housing installed
- The conductor is cemented in place



Conductor Pipe



Subsea Wellhead System



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Drilling Process – Drilling the well

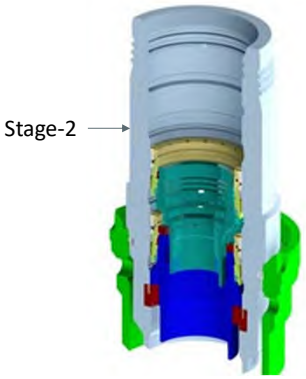
Drilling Surface Hole

- Drill 26” hole
- 20” Surface Casing
- Stage-2 wellhead housing installed
- Casing is cemented in place

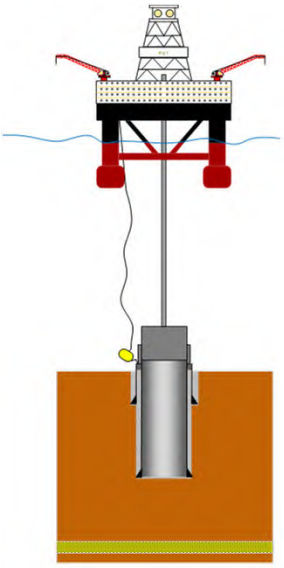




Well Casing



Subsea Wellhead System



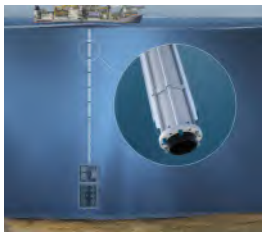
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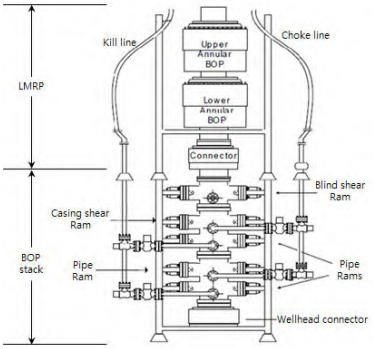
Drilling Process – Drilling the well

Installing the BOP and Riser

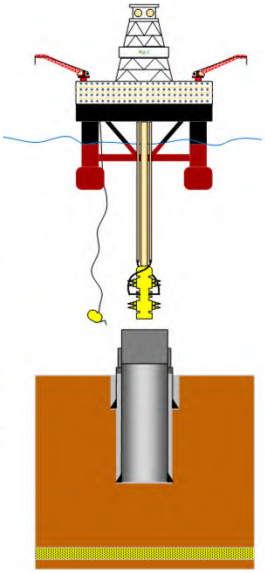


Well Casing





Subsea Wellhead System



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Drilling Process – Drilling the well

Drilling the Intermediate Hole

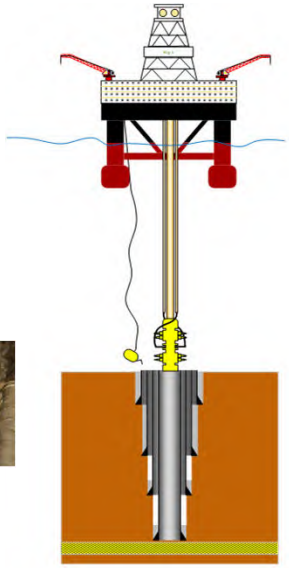
A. Primary Barrier
- Used to maintain "overbalance" to the pressure in the formation.
- The static hydrostatic pressure of the drilling fluid must be more than the pressure WITHIN the rock.

B. Using the drilling fluids
- Used to cool the drill bit and the wellbore.
- Transports cuttings to the surface.
- Water based muds contain barite and bentonite (natural minerals).
- Chemicals added as required.
- MUST go through chemical selection process per the Environment Plan.





Drilling Fluids

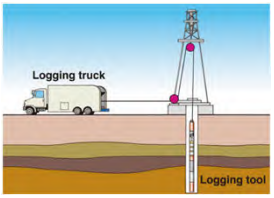


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Drilling Process – Drilling the well

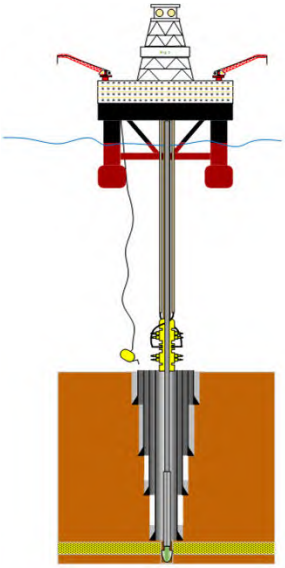
Drilling the Reservoir Hole and Evaluate Well

- Reservoir / Formation Evaluation
  - Used to establish key subsurface information
    - Formation type
    - Formation fluid type
    - Formation porosity and permeability
    - Formation pressure and flow characteristics
    - Sample reservoir fluids
  - MWD/LWD – performed whilst drilling
  - Wireline logging – after hole is drilled







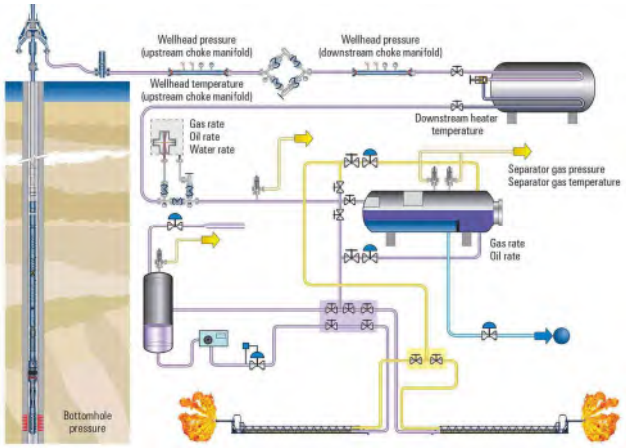


Pictures from SLB, Paniz Energy & ANOG

Drilling Process – Well Testing

Well Testing determines the reservoir delivers hydrocarbons

- Not every well is tested.
- Typical to test “appraisal wells”.
- Typical used to fill the well with hydrocarbons for preparation of new production wells.

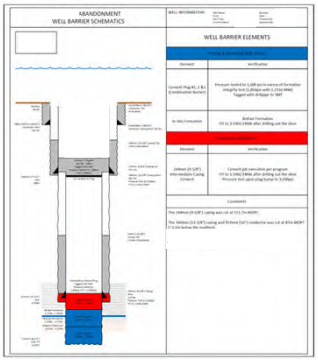


Pictures from SLB

Drilling Process – Well Abandonment

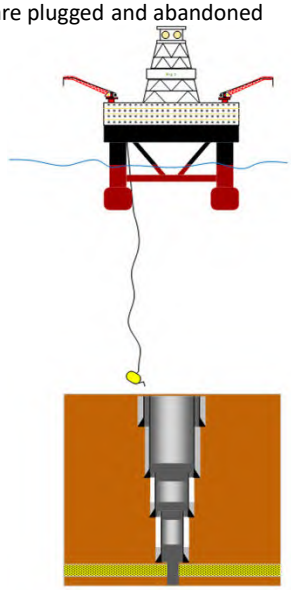
Following the drilling of exploration wells or at the end of a wells production life – wells are plugged and abandoned

- Set cement plugs to prevent the movement of formation fluids either to surface or into shallower formations.
- Removal of the wellhead at below seabed floor level.





Picture from Acteon



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Feedback received from commercial fishing industry

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Activity

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Activities may impact commercial fishing operators ability to undertake regular activities.	ConocoPhillips Australia is aware that the Otway Exploration Drilling Program may interfere with the operation of Commonwealth and State fisheries and result in temporary displacement.	Exclusion zones will be put in place prior to the commencement of seabed survey and drilling activities. These will be communicated via notices to mariners. ConocoPhillips Australia is committed to having a commercial fishing adjustment protocol in place prior to the commencement of the drilling program which will address economic impact as a result of displacement.
There is already seismic over these areas, you shouldn't have to do this again.	The Otway Exploration Drilling Program is not proposing seismic acquisition as part of its activity.	Clarifying proposed activity with all individuals that make this claim, including providing information for current titleholders and proponents proposing to undertake seismic acquisition in the region.
Catch and effort data from relevant fishing authorities (VFA, NRE TAS, AFMA) is not the only indication of productivity in commercial fisheries.	ConocoPhillips Australia has used historic catch and effort data as part of its analysis of Coastal and other marine users chapter. We also look at the stock status of key fished species and assess impacts to these species.	Requesting feedback from fishers in relation to potential interactions over the larger operational areas, and the broader Environmental Planning Area, to ensure that we can address any concerns you may have.

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Activity contd.

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Exploration drilling impacts the recruitment to and long-term sustainability of fisheries.	Although exploration drilling activities do not operate to a no-impact standard, impacts are required to be as low as reasonably practicable (ALARP) and of an acceptable level. Long-term impacts to the sustainability of fisheries are not acceptable.	Requesting feedback from fishers in relation to key values and sensitivities within fisheries (fishing areas) that ConocoPhillips Australia should consider for exclusion.
Commercial fishing industry has experienced ongoing financial impacts in the past 3-5 years (COVID, Trade Embargos, low prices) and this [drilling activity] is an additional impact that puts livelihoods at risk	ConocoPhillips Australia is conscious of the ongoing constraints faced by many in the commercial fishing industry and is aware that the Otway Exploration Drilling Program may interfere with the operation of Commonwealth and State fisheries and result in temporary displacement which has a flow-on affect to income.	ConocoPhillips Australia is committed to having an evidence based commercial fishing adjustment protocol in place prior to the commencement of the drilling program which will address economic impact as a result of displacement.

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Consultation

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Fishers are unable to make an informed assessment as there are no defined drilling locations.	ConocoPhillips Australia is currently analysing seismic data obtained during the Sequoia 3D Marine Seismic Survey in permit T/49P, in 2021, and is reprocessing historic seismic data for parts of permit VIC/P79, to support the identification of drilling locations. ConocoPhillips Australia is developing an Environment Plan that assesses the potential impacts and risks associated with exploration activities over larger operational areas within each of permit areas. We understand that this may result in an overestimation of impacts and risks that are specific to functions, interests and activities.	Provided map with latitude and longitude coordinates to support ongoing consultation with commercial fishing industry. Requesting feedback from fishers in relation to potential interactions over the larger operational areas, and the broader Environmental Planning Area, to ensure that we can address any concerns you may have.

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Adjustment protocol

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
ConocoPhillips Australia's Adjustment protocol for the Sequoia Seismic Survey was still too hard to apply for.	ConocoPhillips Australia worked with peak fishing industry associations and made best attempts to ensure the Sequoia Seismic Adjustment Protocol was as simple as possible to apply to, including allowing for a payment of $2500 in administrative costs for fishers regardless of assessment outcome.	ConocoPhillips Australia is seeking feedback from the commercial fishing industry on how applications to an evidence-based adjustment protocol can be simplified for ease of application.
A displacement based compensation approach is not an adequate compensation approach	ConocoPhillips Australia is aware that there is not a one-size-fits all approach to adjustment and compensation of commercial fishers. ConocoPhillips Australia is committed to the principle that no fisher will be worse off financially as a result of our activity.	ConocoPhillips Australia is seeking feedback from the commercial fishing industry on how best to assess impact to commercial fishers through an evidence based adjustment protocol.

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Adjustment protocols contd.

Objection or Claim (What we've heard)	Assessment of Merit (Our View)	Measures adopted as a result of consultation
Any compensation/ adjustment should be paid to those doing the actual fishing	ConocoPhillips Australia is committed to the principle that no fisher will be worse off financially as a result of our activity.	ConocoPhillips Australia is committed to having an evidence based commercial fishing adjustment protocol in place prior to the commencement of the drilling program which will address economic impact as a result of displacement.
ConocoPhillips Australia should retire the SRL fishing quota for the entire season they are planning to be active.	ConocoPhillips Australia does not believe a full retirement of quota is an appropriate response to a short-term, recoverable activity.	ConocoPhillips Australia is committed to having an evidence based commercial fishing adjustment protocol in place prior to the commencement of the drilling program which will address economic impact as a result of displacement.

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Environmental Impacts and Risks

Initial Assessment

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Desktop analysis to understand the existing environment

Physical Environment	Ecological Environment	Socio-economic Environment	Cultural Environment
• Water quality • Sediment quality • Air quality • Climate • Ambient light • Ambient Sound	• Benthic Habitats and Communities • Coastal Habitats and Communities • Plankton Invertebrates • Fish • Birds • Marine Reptiles • Marine Mammals • Conservation values and sensitivities	• Coastal Communities • Commercial Fisheries • Defence Activities • Offshore Petroleum Activities • Offshore Renewable Energy Activities • Other Offshore Infrastructure • Tourism • Recreational Diving and Fishing • Shipping	• First Nations Peoples • Native Title • Maritime Archaeological Heritage (including shipwrecks)

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Consideration to how our activity interacts with the existing environment

Environmental Impacts	Seabed Disturbance	• Seabed samples • Anchor placement
	Underwater Sound Emissions	• Underwater sound from drilling and support vessel. • Impulsive sound from seabed surveys.
	Atmospheric Emissions	• Emissions from survey and drilling activities.
	Planned Vessel/ Rig Discharges	• Routine discharges from support vessels and drilling rigs. • Cement, cuttings and drilling fluid.
	Interference with other Marine Users	• Short-term displacement.
	Light and Visual Amenity	• Potential visibility of drilling rig from coastline. • Routine light expected to be visible on horizon. • Potential visibility of flare from coastline.
Environmental Risks	Vessel based risks	• Loss of material or waste overboard. • Interactions with marine fauna. • Introduction and establishment of invasive marine species.
	Hydrocarbon related risks	• Minor loss of containment. • Marine diesel oil release. • Loss of well control release.

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Questions and Discussion

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Otway Exploration Drilling Program

Webinar 3

20 September 2023

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Recording Notice

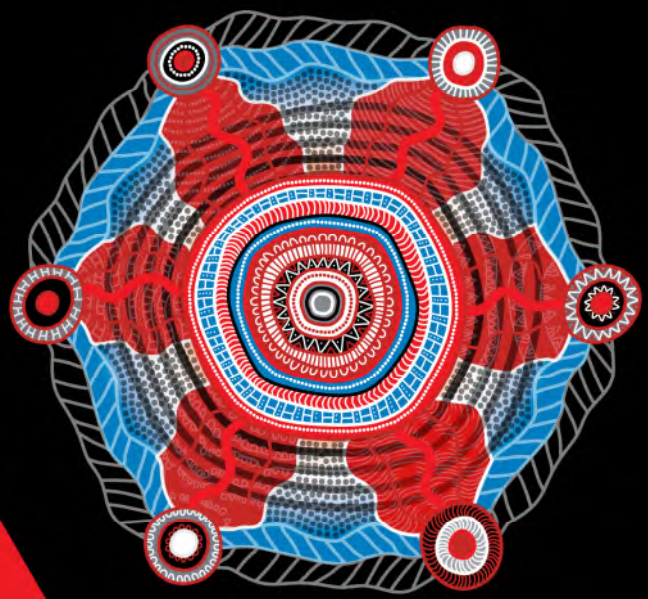
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ConocoPhillips Australia acknowledges the Aboriginal and Torres Strait Islander peoples as the First Nations Peoples and Traditional Custodians of this land, and we pay our respects to Elders past and present. We celebrate the Aboriginal and Torres Strait Islander peoples' long histories, rich cultures and connection to the land, water and air.



2/21/2024

3

Tonight's Webinar

- Project overview and update
- Overview on providing feedback, objections and claims on the draft EP chapters
- Overview of the Environmental Planning Area and how we've described the existing environment
- Environmental Performance Outcomes for the Activity
- Participant led discussion of topics and aspects covered in the EP

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Participant Preferences for EP Information

ACTION: Please use the chat function to share your top 3 topics you'd like to see covered this evening from below.

- Atmospheric Emissions
- Commercial Fishing
- Light Emissions
- Planned Drilling Discharges
- Unplanned Hydrocarbon Release (Spill)
- Underwater Sound
- Underwater Sound and Marine Mammals
- Unexploded Ordnance
- Implementation Strategy

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Otway Exploration Drilling Program

Areas:

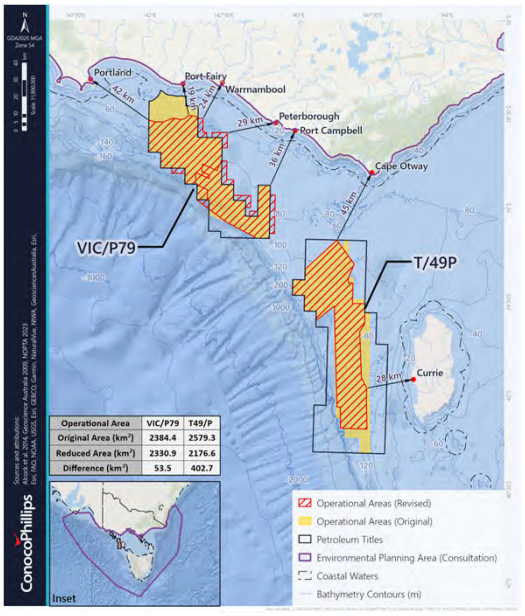
- VIC/P79 and T/49P
- ConocoPhillips Australia holds an 80% interest and operatorship of both permits.

Key Permit Prospects Characteristics:

- Offshore Otway Basin
- Water depth range 35-1400m, predominantly ~100m
- Adjacent to producing Thylacine, Geographe, Casino, and Henry gas fields.

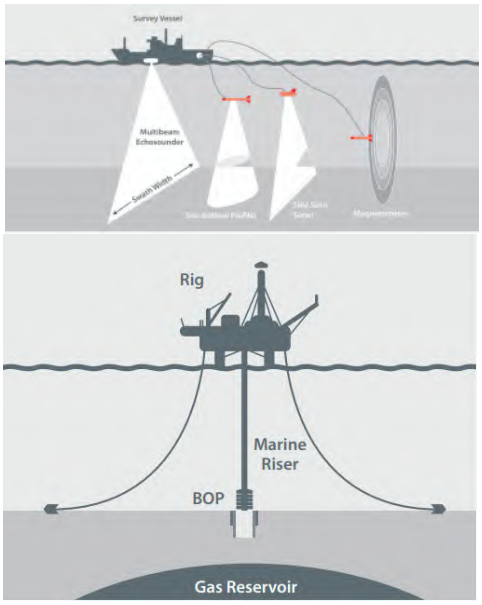
Existing permit commitments:

- T/49P commitment of one exploration well.
- VIC/P79 commitment of one exploration well.



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What hasn't changed…



1. **Seabed Hazard Surveys:**
   - ~6x6 km per site area at up to 9 locations
   - Vessel operations
   - Geophysical survey
   - Geotechnical sampling
   - Imagery

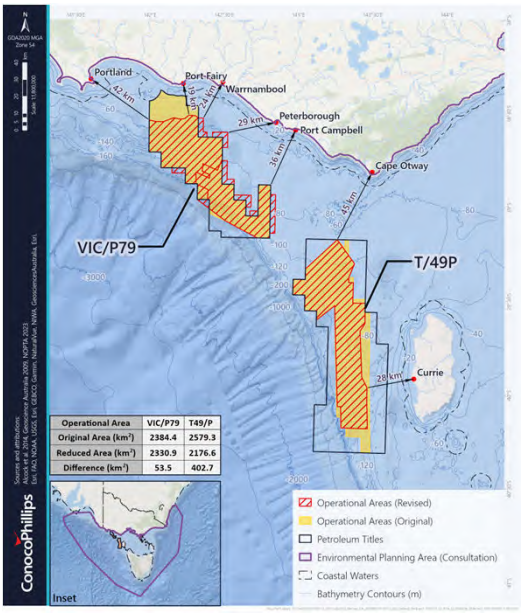
2. **Exploration Drilling:**
   - Minimum of 2 wells and up to 4 optional wells
   - Mobile offshore drilling unit operations
   - Support vessels, remote operated vehicle, aircraft
   - Anchor placement/removal
   - Evaluation and testing (flaring)
   - Plug and Abandon all wells

Environment Plan and associated impact and risk assessment based on maximum of 6 wells over 5yrs.

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What has Changed?



Operational Area

Based on operational constraints of the drilling rig and ConocoPhillips Australia's ongoing assessment of seismic data, the operational areas of the proposed activity have been refined, resulting in an overall reduction of the total area by 456.2 km^2.

Operational Area	Original Area (km^2)	Reduced Area (km^2)	Overall reduction (km^2)
VIC/P79	2384.4	2330.9	53.5
T/49P	2579.3	2176.6	402.7

Design Envelope

The initial timing provided for the commencement of seabed surveys was *no earlier than 1 January 2024*. This has now been extended to *no earlier than 1 April 2024*.

Parameter	Seabed Survey	Drilling
Earliest Start Date	1 April 2024	1 October 2024
Latest Start Date	31 December 2028	31 December 2028
Maximum Number of Locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells)
Spatial Extent (within which the activity can occur)	Operational Areas associated with T/49P and VIC/P79	Operational Areas associated with T/49P and VIC/P79

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Draft Environment Plan Chapters

We are seeking objections and claims that relate to the information contained in the draft Environment Plan that is currently available on the online consultation hub.

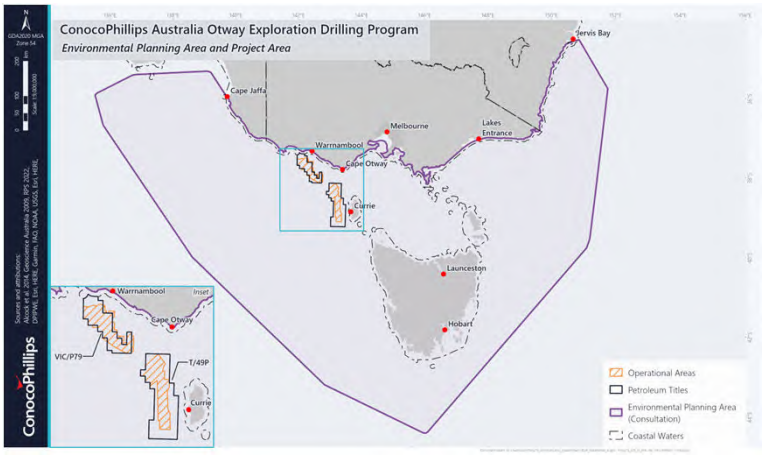
Objections and Claims could relate to:

- The way the existing environment (including the socioeconomic and cultural environment) in the area of the proposed activity is described in the document (Chapter 4)
- The environmental impacts and risks of the proposed activity (Chapter 6-8)
- The proposed measures for managing the environmental impacts and risks (Chapter 6-9)
- The proposed methods for monitoring the environmental performance of the activity (Chapter 9-10).

REMINDER: Blanket objections to the proposed activity and/or fossil fuel are not considered in NOPSEMA's decision making.

Description of the Environment

- Considers the spatial extent of the proposed activity (operational areas, continuous sound emissions, impulsive sound emissions, artificial light emissions, accidental hydrocarbon releases).
- Identifies conservation values and sensitivities like Australian Marine Parks, World Heritage Properties and National Heritage Places, State Protected Areas, Threatened Ecological Communities and Key Ecological Features.
- Considers the physical environment
- Considers the ecological environment
- Considers the socio-economic environment
- Considers the cultural environment such as maritime archaeological heritage, First Nations Heritage and Native Title.



REMINDER: The Environmental Planning Area was established to support the identification of marine and coastal environmental values and sensitivities and potentially relevant persons.

The Environmental Planning Area

Overlaps nine bioregions across three marine regions and includes, but is not limited to the following values and sensitivities:

- 12 Australian Marine Parks
- 1 World Heritage-listed property
- 4 National Heritage Places with coastal features
- 7 Commonwealth Heritage Places with seafloor and/or coastal features
- 9 Ramsar Wetlands Sites
- 46 Marine Protected Areas
- 28 State Protected Areas
- 5 Threatened Ecological Communities with marine or coastal features
- 9 Key Ecological Features
- 274 Fauna species identified to occur
- 36 Commercial Fisheries
- 5 Known to occur invasive marine species
- 31 Coastal settlement regions
- 2 Indigenous Protected Areas
- 17 Known significant shipwrecks

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Environmental Performance Outcomes for the Activity

EPO1: Undertake the activity in a manner that will not interfere with other marine and coastal users to a greater extent than is necessary for the exercise of right conferred by the titles granted.

EP02: Commercial marine operators are not economically disadvantaged as a result of the Otway Exploration Drilling Program.

EPO3: No death or injury to listed threatened or migratory species, from the activity.

EPO4: Biologically important behaviours within a BIA or outside a BIA can continue while the activity is being undertaken.

EPO5: No substantial reduction of air quality within local airshed caused by atmospheric emissions produced during the activity.

EPO6: No substantial or unrecoverable change in seabed quality which may adversely impact on biodiversity, ecological integrity, social amenity, cultural values or human health.

EPO7: No unplanned objects, emissions or discharges to sea or air.

EPO8: No discernible change to the air quality of coastal communities.

EPO9: Anthropogenic noise in biologically important areas will be managed such that:

- Any blue whale continues to utilise the area without injury, and is not displaced from a foraging area.
- It does not prevent any southern right whale from utilising the area or cause injury (TTS and PTS) and/or disturbance.

EPO10: No substantial or unrecoverable change in water quality which may adversely impact on biodiversity, ecological integrity, social amenity, cultural values or human health.

EPO11: No invasive marine species introduced, established or spread attributable to the activity.

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Unexploded Ordnance

Assessment:

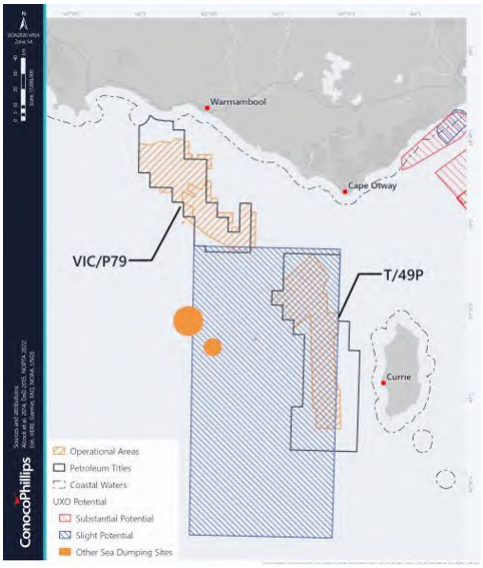
- Low risk of encountering UXO's within VIC/P79 or T/49P for all activities with the exception of snag on vessel.
- Moderate risk of UXO being snagged on submarine equipment and subsequently being brought onto a vessel (snag on vessel). Increase in risk is based on increased severity of the consequence.

Control Measures:

- **CM06:** MODU Mooring Plan – A magnetometer survey and review of the seabed imagery will be conducted as part of the seabed survey to support avoidance of ferric metal objects, including unidentified shipwrecks and unexploded ordnance.

Environmental Performance Outcomes:

- **EPO1:** Undertake the activity in a manner that will not interfere with other marine and coastal users to a greater extent than is necessary for the exercise of right conferred by the titles granted.
- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO6:** No substantial or unrecoverable change in seabed quality which may adversely impact on biodiversity, ecological integrity, social amenity, cultural values or human health.



Atmospheric Emissions

Assessment:

- Atmospheric emissions are predicted to result in localised and temporary reduction in air quality, which will rapidly disperse given the open ocean environment and prevailing winds of the Otway Basin, as such the impact has been assessed as Minor.
- GHGs produced by this activity in a year would represent approximately 0.0085% of the annual Australian GHG emissions. While these emissions add to the GHG load in the atmosphere, they are small when compared to national emissions, insignificant on a global scale and are not predicted to have determinable impacts, as such the impact has been assessed as Minor.

Control Measures:

- **CM01:** Marine Assurance Process
- **CM02:** Vessel and MODU Operating Procedures
- **CM10:** Well Testing Program
- **CM11:** Procurement Vetting Process

Environmental Performance Outcomes:

- **EPO5:** No substantial reduction of air quality within local airshed caused by atmospheric emissions produced during the activity.
- **EPO7**: No unplanned objects, emissions or discharges to sea or air.
- **EPO8**: No discernible change to the air quality of coastal communities.

Planned Drilling Discharges

Assessment:

- Drilling discharges are predicted to result in a temporary and localised impacts (within a few hundred metres to 2 km from the well) with discharges rapidly dispersing in the marine environment and anticipated to return to pre-impact state without long-term impacts to the physical environment, as such the impacts have been assessed as negligible to minor.

Control Measures:

- **CM02:** Vessel and MODU Operating Procedures
- **CM09:** Drilling Program
- **CM11:** Procurement Vetting Process
- **CM12:** General and Hazardous Chemical Management Procedures

Environmental Performance Outcomes:

- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO6:** No substantial or unrecoverable change in seabed quality which may adversely impact on biodiversity, ecological integrity, social amenity, cultural values or human health.
- **EPO7**: No unplanned objects, emissions or discharges to sea or air.
- **EPO10:** No substantial or unrecoverable change in water quality which may adversely impact on biodiversity, ecological integrity, social amenity, cultural values or human health..

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Planned Operational Discharges

Assessment:

- Operational discharges are anticipated to result in a temporary and localised impacts (within 500m of the source) with discharges rapidly dispersing in the marine environment and anticipated to return to pre-impact state without long-term impacts to the physical environment, as such the impacts have been assessed as negligible to minor.

Control Measures:

- **CM01:** Marine Assurance Process
- **CM02:** Vessel and MODU Operating Procedures
- **CM11:** Procurement Vetting Process
- **CM12:** General and Hazardous Chemical Management Procedures

Environmental Performance Outcomes:

- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO7**: No unplanned objects, emissions or discharges to sea or air.
- **EPO10:** No substantial or unrecoverable change in water quality which may adversely impact on biodiversity, ecological integrity, social amenity, cultural values or human health..

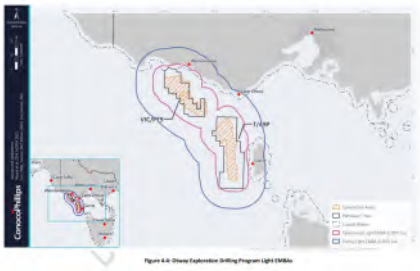
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Light Emissions – impact to coastal communities

Table 4-4: Suburbs and localities located within the light EMBAs

Suburbs and Locality	T/49P		VIC/P79 Southern extent*		VIC/P79 Northern extent*	
	Light EMBA	Flaring EMBA	Light EMBA	Flaring EMBA	Light EMBA	Flaring EMBA
King Island Population: 1,617		✓				
Peterborough Population: 322				✓		✓
Port Campbell Population: 440				✓		✓
Princetown Population: 236				✓		
Warrnambool Population: 31,308				✓		✓
Killarney Population: 195						✓
Port Fairy Population: 3,742				✓	✓	✓
Yambuk Population: 284						✓
Narrawong Population: 462						✓
Portland Population: 10,016						✓

* Light impacts associated with VIC/P79 have been assessed for northern and southern extents to reflect the spatial extent of the permit area and proximity to the Victorian coastline.
Source for population statistics: ABS 2021.



Light Emissions

Assessment:

- Light emissions from navigational lighting have the potential to result in a change in ambient light within 20km of the light source. Lighting on vessels and the MODU will be limited to only that which is required for navigational and safety purposes and as such the impacts for navigational lighting have been assessed as negligible to minor for all species.
- Light emissions from flaring operations have the potential to result in a change in ambient light within 50km of the light source. Whilst an overlap of the flaring operations EMBA occurs with five species breeding BIA's the impact from flaring will be short-duration, intermittent and temporary (maximum of 120 hours per well) and as such have been assessed as negligible to minor except for the orange-bellied parrot which is moderate.
- Additional control measures have been considered to ensure higher-order impacts are managed to ALARP and acceptable levels.

Control Measures:

- **CM01:** Marine Assurance Process
- **CM02:** Vessel and MODU Operating Procedures
- **CM07:** Light Management Plan
- **CM10:** Well Testing Program

Environmental Performance Outcomes:

- **EPO1:** Undertake the activity in a manner that will not interfere with other marine and coastal users to a greater extent than is necessary for the exercise of right conferred by the titles granted.
- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO4:** Biologically important behaviours within a BIA or outside a BIA can continue while the activity is being undertaken.

Underwater Sound – Non-impulsive

Background:

The Otway Exploration Drilling Program will generate non-impulsive (or continuous) underwater sound emissions as a result of vessel, MODU, drilling and aircraft operations.

Assessment:

Jasco modelled a range of operational activities and identified the furthest distances for a range of effect thresholds for different species.

Example – Low-frequency cetaceans:

- Permanent Threshold Shift (PTS) within 320 m of source assuming present for 24 hours during resupply – not possible.
- Temporary Threshold Shift (TTS) within 3.6 km of source assuming present for 24 hours during resupply – not possible.
- Behavioural disturbance within 12.6 km on the continental shelf and 22.8 km out from shelf-edge (when drilling near the edge) for short-term resupply activities.

Example – Fish and Invertebrates:

- Recoverable Injury within 80 m of source assuming present for 48 hours.
- Temporary Threshold Shift within 190 m assuming present for 12 hours.
- Sound exposure impacts to invertebrates (i.e. giant crab and southern rock lobster) are expected to be restricted to within metres of the continuous sound source.

Impacts are required to be managed to protect threatened whale species, reducing the consequence severity to minor through the implementation of effective monitoring and mitigation measures.

Control Measures:

- **CM01:** Marine Assurance Process
- **CM02:** Vessel and MODU Operating Procedures
- **CM08:** Marine Mammal Adaptive Management Plan

Environmental Performance Outcomes:

- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO4:** Biologically important behaviours within a BIA or outside a BIA can continue while the activity is being undertaken.
- **EPO9**: Anthropogenic noise in biologically important areas will be managed such that:
  - Any blue whale continues to utilise the area without injury, and is not displaced from a foraging area.
  - It does not prevent any southern right whale from utilising the area or cause injury (TTS and PTS) and/or disturbance.

Underwater Sound – Impulsive

Background:

The Otway Exploration Drilling Program will generate impulsive underwater sound emissions during seabed surveys and during short-term downhole formation evaluation.

Assessment:

Jasco modelled the noisiest geophysical seabed survey technique, being sub-bottom profiling at 169 decibels, and the noisiest downhole formation evaluation technique, being Vertical Seismic Profiling at 216 decibels (not to be confused with 3D Marine Seismic Surveys) and identified the furthest distances effect thresholds.

Example – Low-frequency cetaceans:

- PTS within 330 m of VSP source assuming present for 24 hours during VSP – not possible.
- TTS within 2.4 km of VSP source assuming fauna is present for 24 hours during VSP – not possible.
- Behavioural disturbance within 1.5 km of VSP source (for 160 dB criteria).
- Behavioural disturbance within 130 m of SBP source and 6.5 km of VSP source (for more conservative 140 dB criteria for southern right whale cow-calf pairs).

Example – Fish, Fish Eggs, Larvae and Invertebrates:

- Mortality/potential mortality/recoverable Injury within 50 m of VSP source.
- TTS within 450 m of VSP source assuming present for 24 hours.
- 'No effect at seafloor' threshold for invertebrates reached within 170 m during VSP – no other criteria were reached for invertebrates.

Impacts are required to be managed to protect threatened whale species, reducing the consequence severity to minor through the implementation of effective monitoring and mitigation measures.

Control Measures:

- **CM02:** Vessel and MODU Operating Procedures
- **CM08:** Marine Mammal Adaptive Management Plan
- **CM10:** Drilling Program
- **CM11:** Procurement Vetting Process

Environmental Performance Outcomes:

- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO4:** Biologically important behaviours within a BIA or outside a BIA can continue while the activity is being undertaken.
- **EPO9**: Anthropogenic noise in biologically important areas will be managed such that:
  - Any blue whale continues to utilise the area without injury, and is not displaced from a foraging area.
  - It does not prevent any southern right whale from utilising the area or cause injury (TTS and PTS) and/or disturbance.

Underwater sound and marine mammals

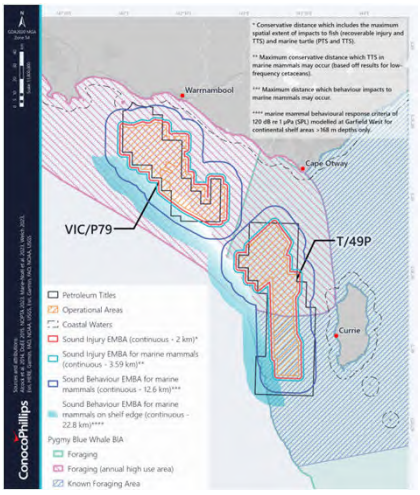
Assessment:

Underwater sound emissions associated with vessels, the drilling rig and seabed survey and drilling operations will occur in the offshore marine environment and overlap Sea Country for the duration of the activity.

- A change in ambient sound has the potential to result in impacts to receptors, including changes in behaviour, injury or mortality.
- Underwater sound emissions must be managed so they do not impact on the recovery of pygmy blue whales and southern right whales as per the federal Conservation Management Plans for these species. This means that injury to or behavioural disturbance of these species is 'not acceptable'.

Environmental Performance Outcomes:

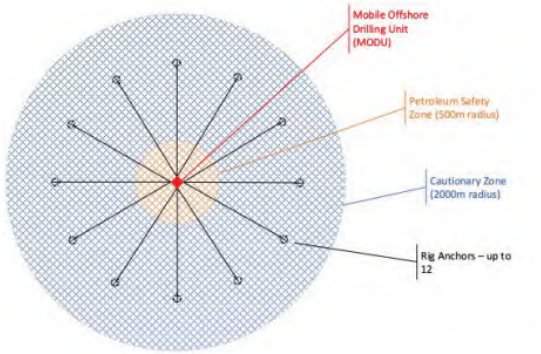
- **EPO3:** No death or injury to listed threatened or migratory species, from the activity.
- **EPO4:** Biologically important behaviours within a BIA or outside a BIA can continue while the activity is being undertaken.
- **EPO9**: Anthropogenic noise in biologically important areas will be managed such that:
  - Any blue whale continues to utilise the area without injury, and is not displaced from a foraging area.
  - It does not prevent any southern right whale from utilising the area or cause injury (TTS and PTS) and/or disturbance.



Other Marine and Coastal Users

Assessment:

- The presence of the activity has the potential to interfere with other marine users such as commercial shipping, defence activities and recreation and tourism resulting in temporary displacement raging from a 500 m to 2 km radius around the activity and potential visibility of the MODU in certain locations. Interference will be short-term and fully recoverable and as such has been assessed as minor.



Control Measures:

- **CM01:** Marine Assurance Process
- **CM02:** Vessel and MODU Operating Procedures
- **CM03:** Marine and Coastal Users Consultation and Communication Plan
- **CM04:** Commercial Marine Operators Adjustment Protocol
- **CM06:** MODU Mooring Plan

Environmental Performance Outcomes:

- **EPO1:** Undertake the activity in a manner that will not interfere with other marine and coastal users to a greater extent than is necessary for the exercise of right conferred by the titles granted.
- **EP02:** Commercial marine operators are not economically disadvantaged as a result of the Otway Exploration Drilling Program.

Commercial Fishing

Assessment:

- The presence of the activity has the potential to interfere with the operation of commonwealth and state fishers and result in temporary displacement raging from a 500 m to 2 km radius around the activity. Interference will be short-term and recoverable with vessel advised in advance of locations to enable journey planning to navigate around the activity and as such the impacts to commercial fishing have been assessed as minor.



Control Measures:

- **CM01:** Marine Assurance Process
- **CM02:** Vessel and MODU Operating Procedures
- **CM03:** Marine and Coastal Users Consultation and Communication Plan
- **CM04:** Commercial Marine Operators Adjustment Protocol
- **CM06:** MODU Mooring Plan

Environmental Performance Outcomes:

- **EPO1:** Undertake the activity in a manner that will not interfere with other marine and coastal users to a greater extent than is necessary for the exercise of right conferred by the titles granted.
- **EP02:** Commercial marine operators are not economically disadvantaged as a result of the Otway Exploration Drilling Program.

Potential Risks of Activity – Unplanned Hydrocarbon Release

Risks associated with activity

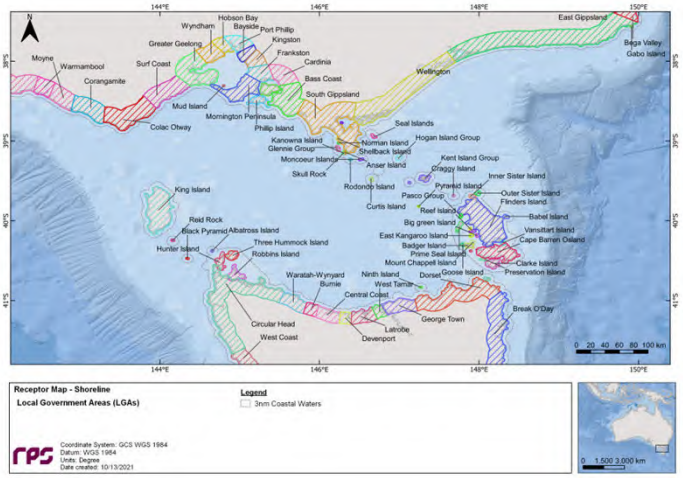
In the highly unlikely event of a Marine Diesel Oil spill or Loss of Well Control (both events assessed as 'Remote'), there is potential for hydrocarbons to move into coastal waters and shorelines.

Control Measures:

- Accepted Oil Pollution Emergency Plan (OPEP)
- Operational and Scientific Monitoring Program
- Accepted Well Operations Management Plan
- Source Control Emergency Plan
- Shipboard Marine Pollution Emergency Plan or Shipboard Oil Pollution Emergency Plan.

In addition to the above plans, the following control measures will also be in place for the activity.

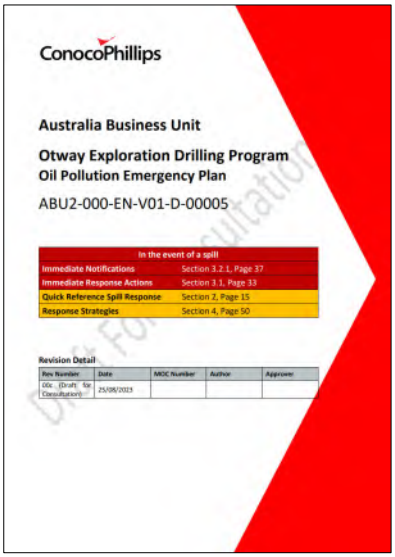
- Petroleum safety zone (500m radius) surrounding the drilling rig during the drilling activity.
- Cautionary zone (2km radius) around the drilling activity to minimise the potential for vessel collisions.
- Notifications provided for any on-water activities and ongoing communication with other marine users.



Oil Pollution Emergency Plan

Demonstrates the capability to respond to spills that may result from offshore activities:

- Worst-case spill scenarios – hydrocarbon-types, modelling and actionable areas
- Crisis Management and Emergency Response Framework/System
- Roles and Responsibilities
- Initial Response Actions and Notifications
- Response and Protection Priorities
- Response Strategies and Resources
- Environmental Performance Outcomes, Environmental Performance Standards and Measurement Criteria
- Operational and Scientific Monitoring Program
- Preparedness, Exercises, Training and Competency
- Record Keeping
- Appendices:
  - Aviation Plan
  - Shoreline Plan
  - Tactical Response Plans

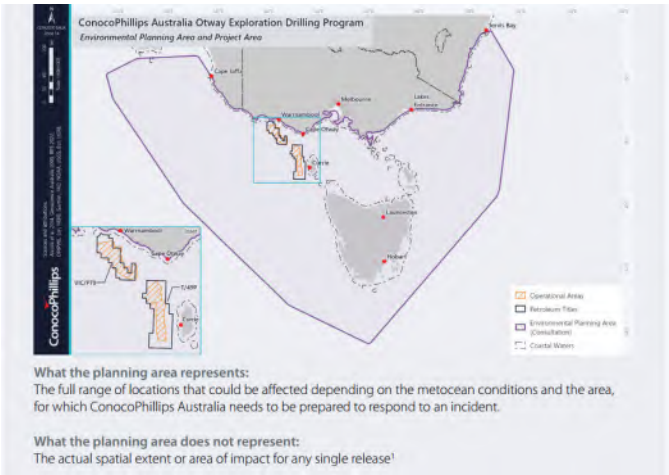


REMINDER: The OPEP is developed in consultation with State Control Agencies

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Understanding where hydrocarbons might go under different conditions (Stochastic Modelling)

- Used in the risk assessment to support the prediction of possible effects and supports preparedness by identifying a planning area, within which environmental values and sensitivities are identified and priorities for protection are established.
- Shows the full range of locations that could be affected depending on metocean conditions – in no way representative of an individual spill.
- Each type of hydrocarbon is assessed over low, moderation and high thresholds which have increasing impacts to the receiving environment.



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Defining credible spill scenarios (Deterministic Modelling)

The potential worst-case hydrocarbon spill scenarios relating to offshore petroleum activities are outlined below:

For seabed surveys, drilling rig and support vessel operations:

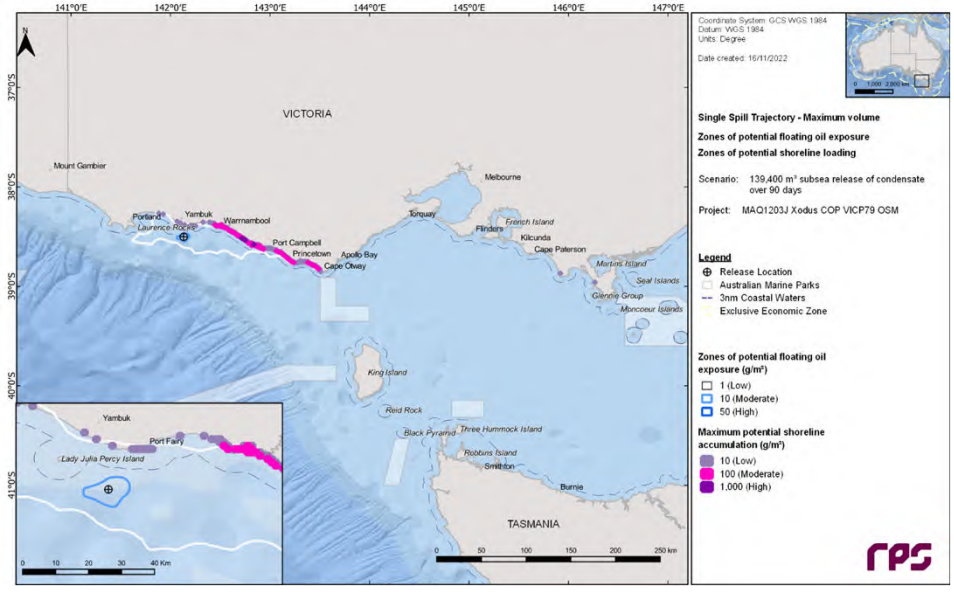
- A vessel collision within the operational area resulting in a 350 m^3 surface release of MDO over 6 hours was identified as the worst-case credible spill scenario based on the AMSA Technical guidelines for preparing contingency plans for marine and coastal facilities (AMSA 2015). Calculation of discharge volume and timing align with the methodology recommended therein.

For drilling operations:

- Worst-case discharge calculations completed in line with the ConocoPhillips Corporate Practice (Calculation and Documentation of WCD, 2018) for a hypothetical open hole, unrestricted Loss of Well Control (LOWC) scenario during exploration drilling. The WCD highest daily flow rate of hydrocarbons resulted in a predicted total spill volume of 139,400 m^3 over a 90-day duration.

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Modelling: Largest Volume of Hydrocarbons Ashore



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Implementation Strategy

Describes ConocoPhillips Australia's Health, Safety and Environmental Managemental System (HSEMS), including specific measures that will be used to ensure that, for the duration of the activity:

- The environmental impacts and risks of the activity continue to be identified and reduced to a level that is as low as reasonably practicable (ALARP), and
- Control measures detailed in the EP are effective in reducing the environmental impacts and risks of the activity to ALARP and an acceptable level, and
- Environmental performance outcomes and standards set out in the EP are being met.

Establishes a clear chain of command, setting out the roles and responsibilities of personnel in relation to the implementation, management and review of the EP, including during emergencies or potential emergencies.

Provides measures to ensure each employee or contractor working on, or in connection with, the activity is aware of their responsibilities in relation to the EP, including during emergencies or potential emergencies, and has the appropriate competencies and training.

Provides for monitoring, recording, audit, management of nonconformance and review of environmental performance and the implementation strategy to ensure that the environmental performance outcomes and standards in the EP are being met.

Provides for monitoring of, and maintaining a quantitative record of, emissions and discharges (during normal operations or otherwise), to assess whether the environmental performance outcomes and standards in the EP are being met.

Provides for an oil pollution emergency plan and updating and testing of the plan consistent with the national system for oil pollution preparedness and response.

Provides for monitoring and recording of impacts to the environment from oil pollution and response activities.

Provides for appropriate consultation with relevant authorities of the Commonwealth and State, and other relevant persons or organisations.

Among may other things…

- Notifications, Communications, Ongoing Consultation
- Management of Change
- Reporting, Auditing and Inspections…

Next Steps: Consultation Pause

- Consultation will pause on 30 September – this is to allow ConocoPhillips time to finalise compiling the Environment Plan prior to submitting it to the regulator for a 30-day Public Comment period.
- During this time, we will:
  - Assess and respond to the feedback, objections and claims received from relevant persons
  - Update the Environment Plan to reflect feedback, objections and claims received.
- After the EP has been submitted for Public Comment, consultation will resume and be ongoing.
- The next you will hear from us will be:
  - ConocoPhillips Australia formally responding to your feedback, objections and claims you may have raised.
  - Notification that that EP is available on the NOPSEMA website for public comment.

ConocoPhillips

Otway Exploration Drilling Program

Webinar 4

15 November 2023

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Recording Notice

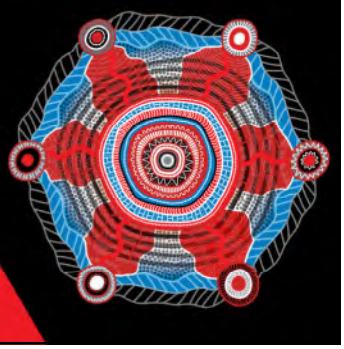
This webinar will be recorded (video, audio and content) and photographs may be taken. The recording and any photographs may be used and distributed by ConocoPhillips Australia as part of its stakeholder engagement/consultation and associated purposes. By attending this session, you consent to this.

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2

ConocoPhillips

ConocoPhillips Australia acknowledges the Aboriginal and Torres Strait Islander peoples as the First Nations Peoples and Traditional Custodians of this land, and we pay our respects to Elders past and present. We celebrate the Aboriginal and Torres Strait Islander peoples' long histories, rich cultures and connection to the land, water and air.



1/18/2024

3

Tonight's Webinar

- Project overview and update
- Recap of consultation process and consultation milestones to-date.
- Overview on consultation moving forward.
- Q&A (Please note, this will be limited to procedural questions only).

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Otway Exploration Drilling Program

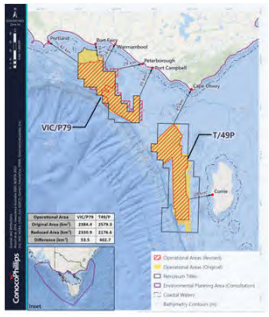
Areas:
- VIC/P79 and T/49P

Existing permit commitments:
- T/49P commitment of one exploration well.
- VIC/P79 commitment of one exploration well.

Proposed activities assessed in Environment Plan
Seabed Hazard Surveys:
- ~6x6 km per site area at up to 9 locations
- Vessel operations
- Geophysical survey
- Geotechnical sampling
- Imagery

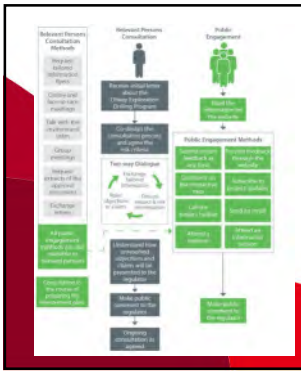
Exploration Drilling:
- Minimum of 2 wells and up to 4 optional wells
- Mobile offshore drilling unit operations
- Support vessels, remote operated vehicle, aircraft
- Anchor placement/removal
- Evaluation and testing (flaring)
- Plug and Abandon all wells

Environment Plan and associated impact and risk assessment based on maximum of 6 wells over 5yrs.



5

5



Recap of consultation process to-date

6

Consultation Milestones to-date





7

Next Steps: Consultation

NOPSEMA are currently ensuring our submission is complete.

If it is, the full Environment Plan (EP) will be made available for public comment on NOPSEMAs website.

Comments on the EP need to be submitted to NOPSEMA within 30 days.

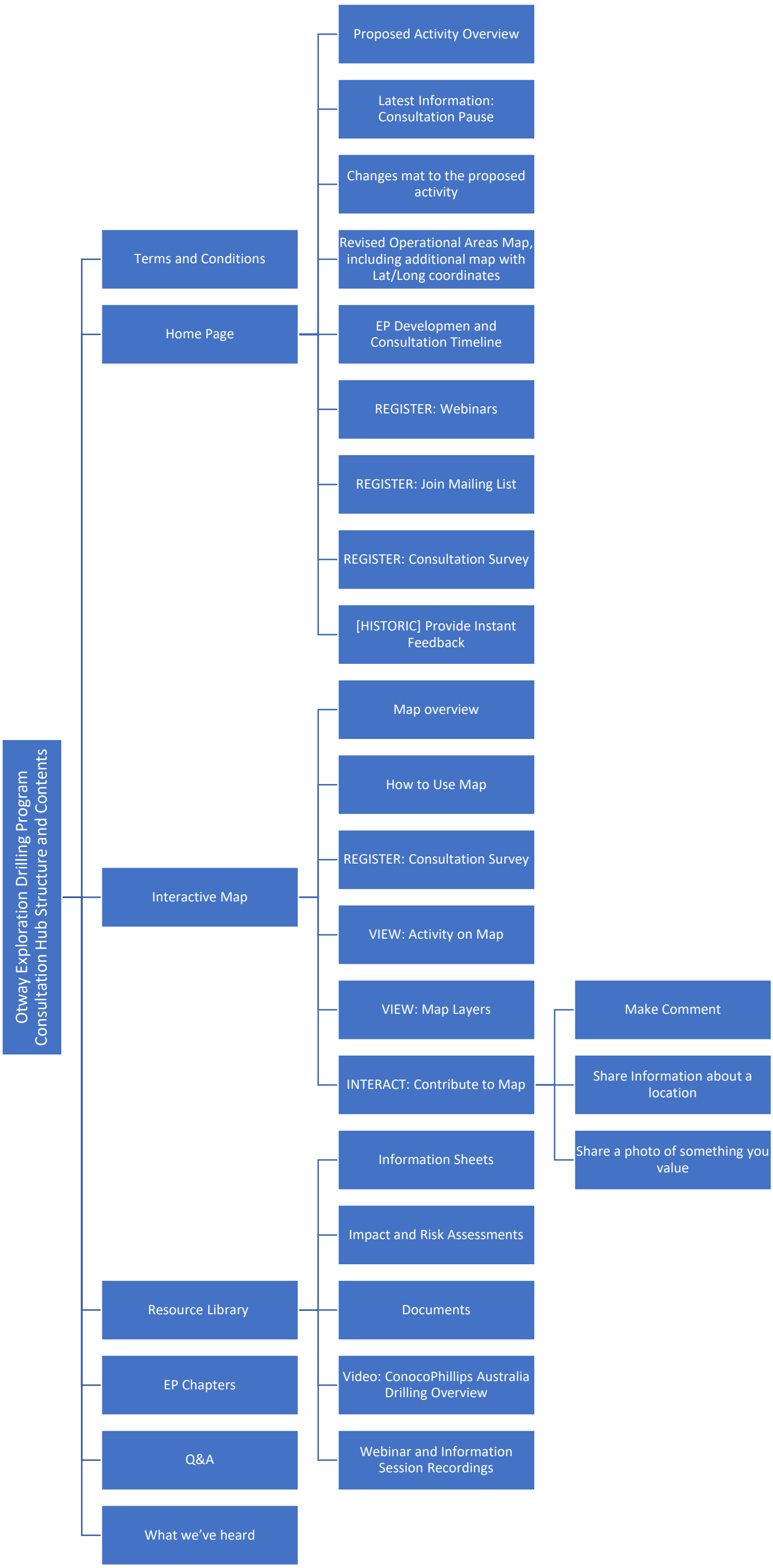
NOPSEMA will provide a copy of the comments to ConocoPhillips Australia.

ConocoPhillips Australia will consider each public comment and may modify the EP.

As part of a resubmission after public comment, ConocoPhillips Australia will:

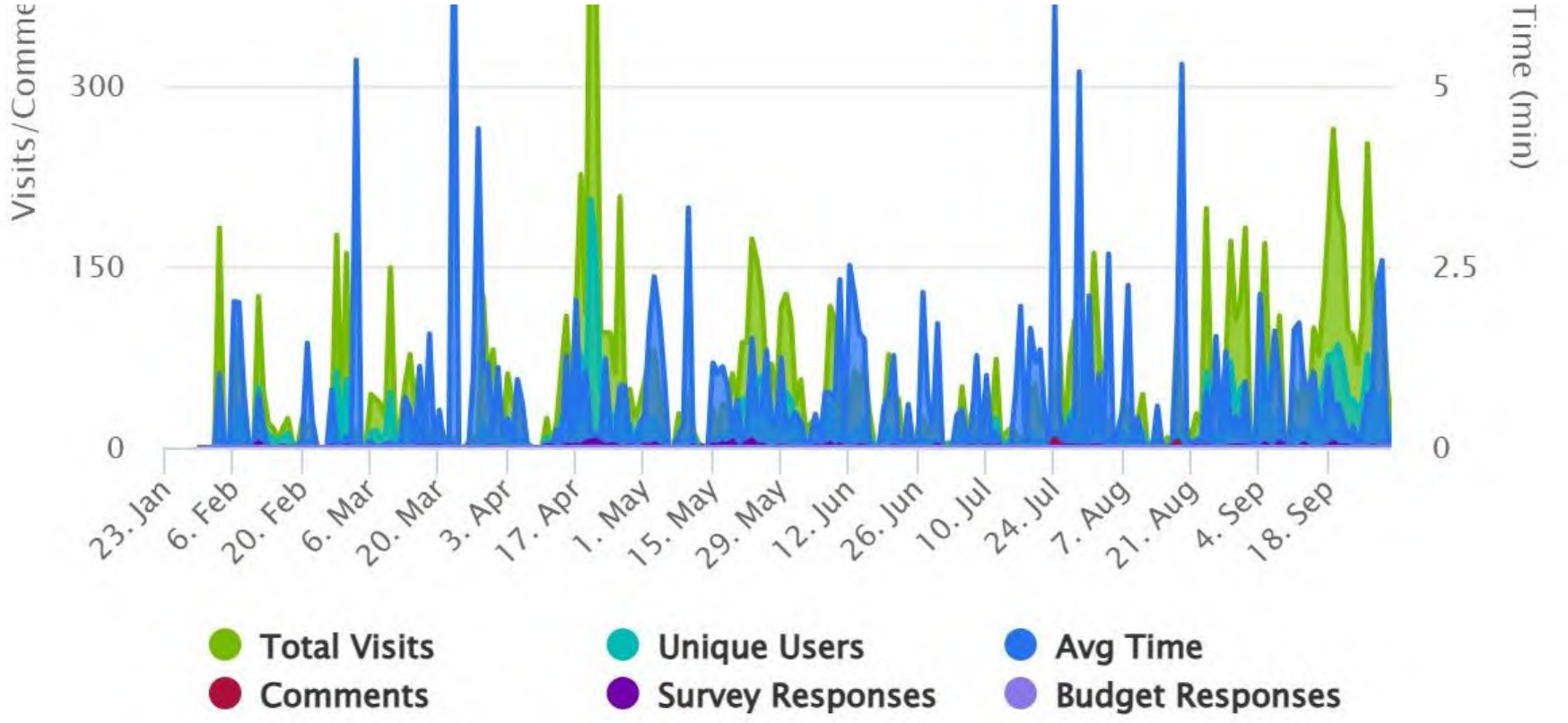
- Respond in general terms to the comments.
- Indicate whether any modifications of the EP were made in response to public comments.
- Refer to any modifications made in response to the comments.

8


Otway Exploration Drilling Program Consultation Hub Structure and Contents
Terms and Conditions
Home Page
Proposed Activity Overview
Latest Information: Consultation Pause
Changes mat to the proposed activity
Revised Operational Areas Map, including additional map with Lat/Long coordinates
EP Developmen and Consultation Timeline
REGISTER: Webinars
REGISTER: Join Mailing List
REGISTER: Consultation Survey
[HISTORIC] Provide Instant Feedback
Interactive Map
Map overview
How to Use Map
REGISTER: Consultation Survey
VIEW: Activity on Map
VIEW: Map Layers
INTERACT: Contribute to Map
Make Comment
Share Information about a location
Share a photo of something you value
Resource Library
Information Sheets
Impact and Risk Assessments
Documents
Video: ConocoPhillips Australia Drilling Overview
Webinar and Information Session Recordings
EP Chapters
Q&A
What we've heard

Engagement Summary

12778	4258	0:46	102	20	128	947
Total Visits	Unique Users	Avg Time (min)	Unique Stakeholders	Comments	Survey Responses	Document Downloads

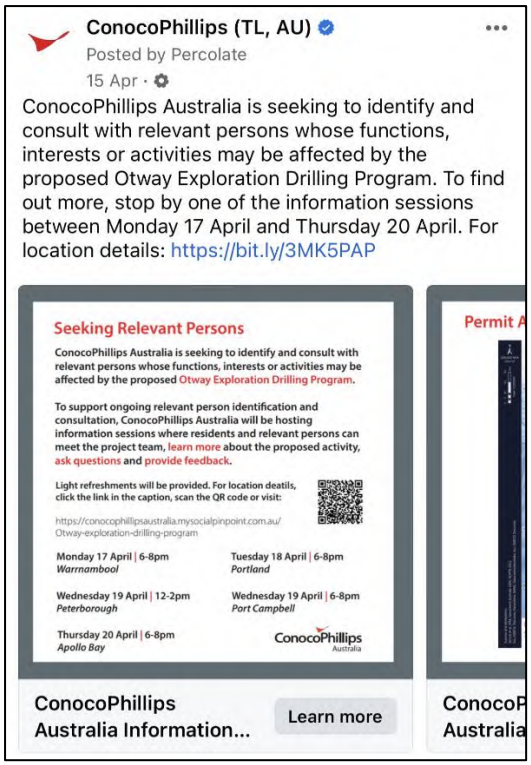


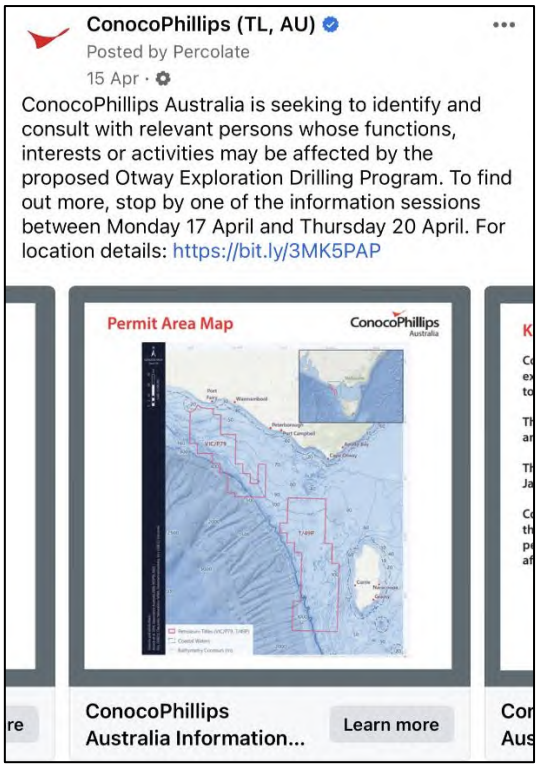
15 April 23 – 20 April 23 – Seeking Relevant Persons – Facebook Carousel Advert

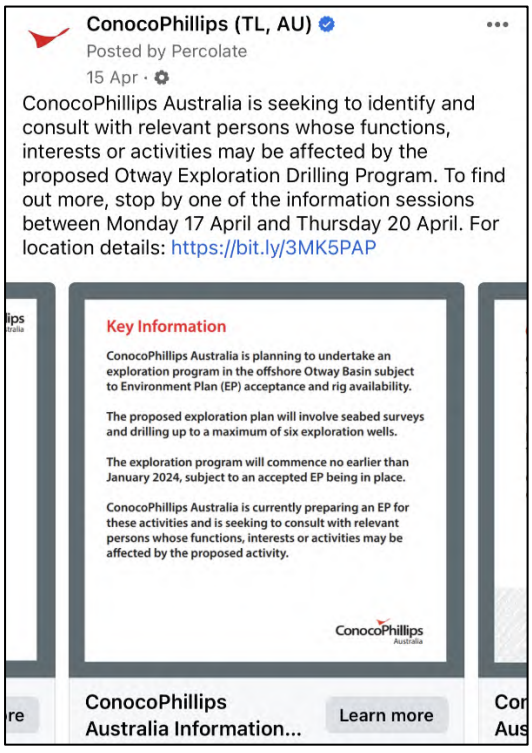
People Reached: 4487 **Post Engagement:** 226 **Link clicks:** 108

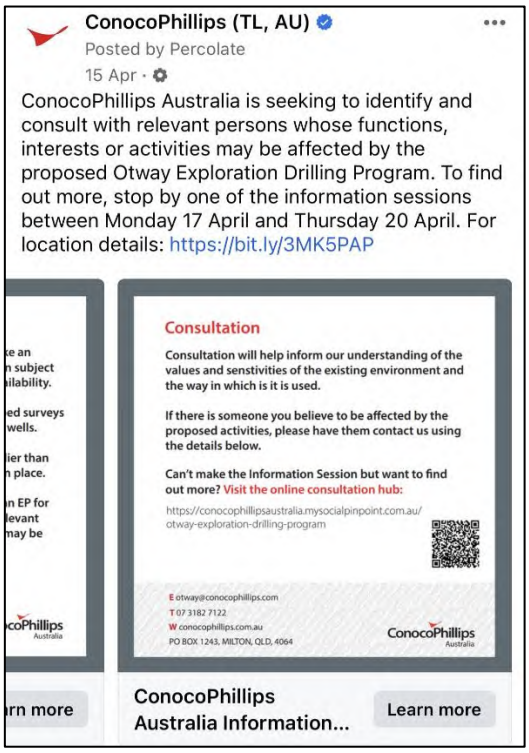
Geotargeted Locations: Apollo Bay, Geelong, Peterborough, Port Campbell, Portland, Warrnambool Victoria

Link in post: [Home Page | Social Pinpoint (mysocialpinpoint.com.au)]







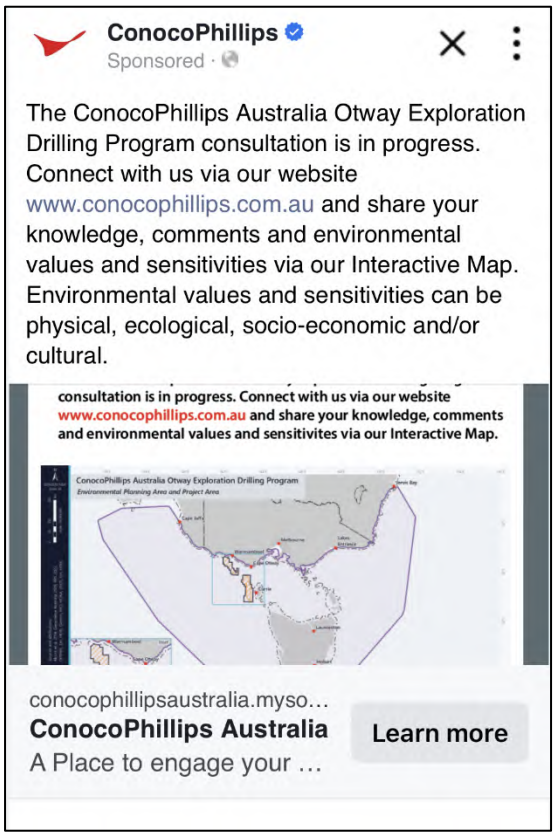


20 May 23 – 3 June 23: Interactive Map – Facebook Advert

People Reached: 7,052 **Post Engagement:** 877 **Link clicks:** 277

Geotargeted Locations: Cape Jaffa, Warrnambool, Cape Otway, Currie, Melbourne, Launceston, Hobart, Lakes Entrance, Jervis Bay

Link in post: Otway Exploration Drilling Program | Social Pinpoint (mysocialpinpoint.com.au)

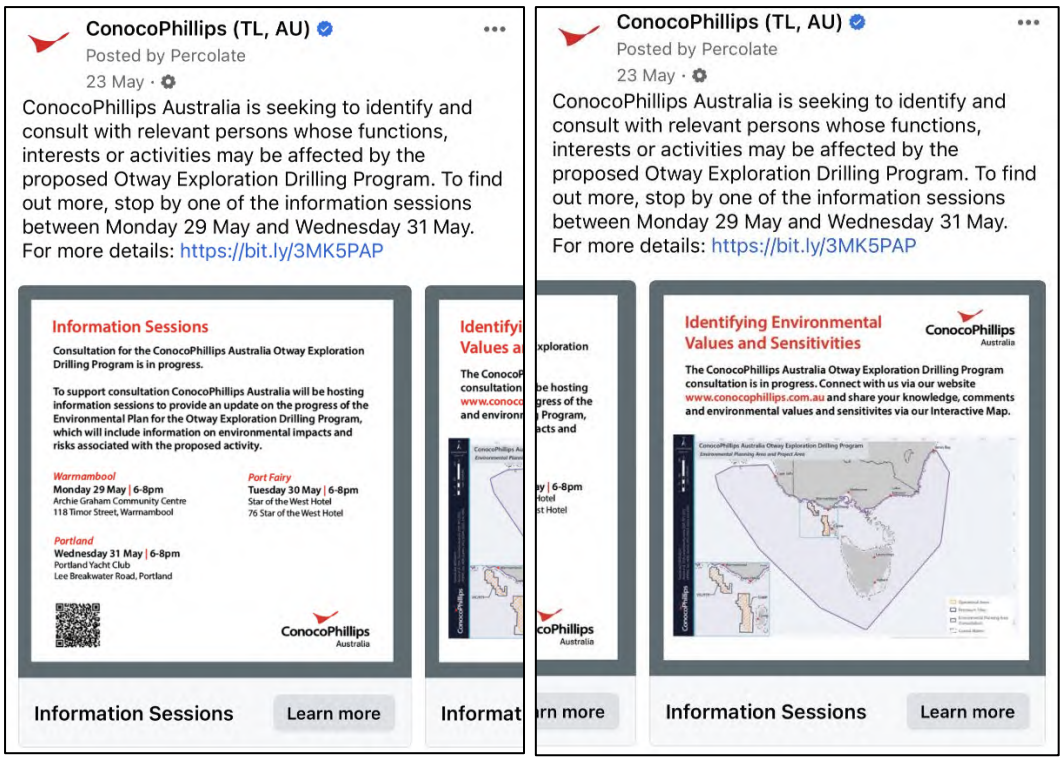


23 May 23 – 1 June 23: Information Sessions – Facebook Carousel Advert

People Reached: 3255 **Post Engagement:** 195 **Link clicks:** 71

Geotargeted Locations: Port Fairy, Portland, Warrnambool Victoria

Link in post: Home Page | Social Pinpoint (mysocialpinpoint.com.au)

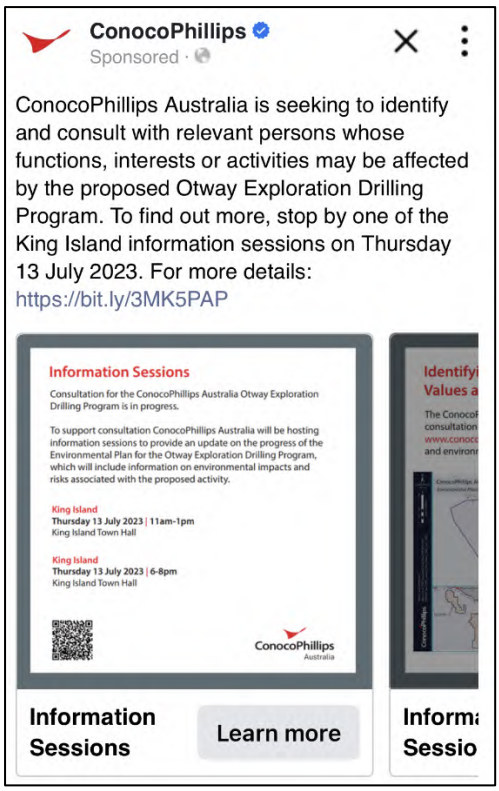


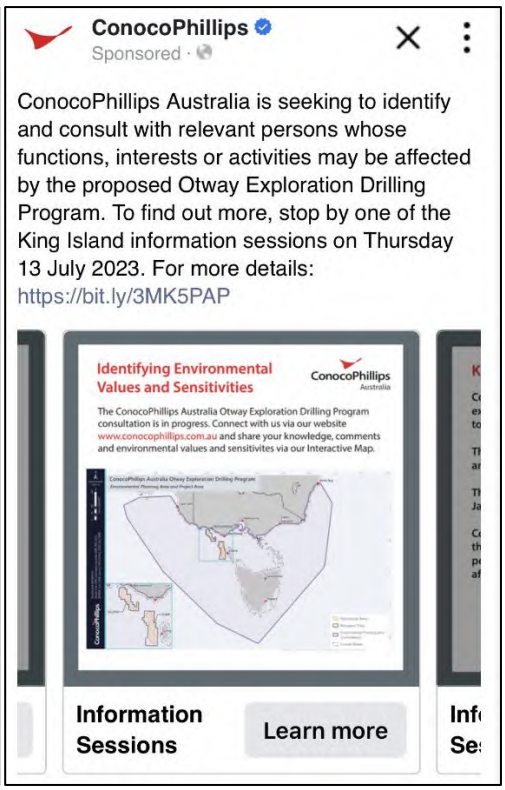
4 July 23 – 14 July 23: Information Sessions – Facebook Carousel Advert

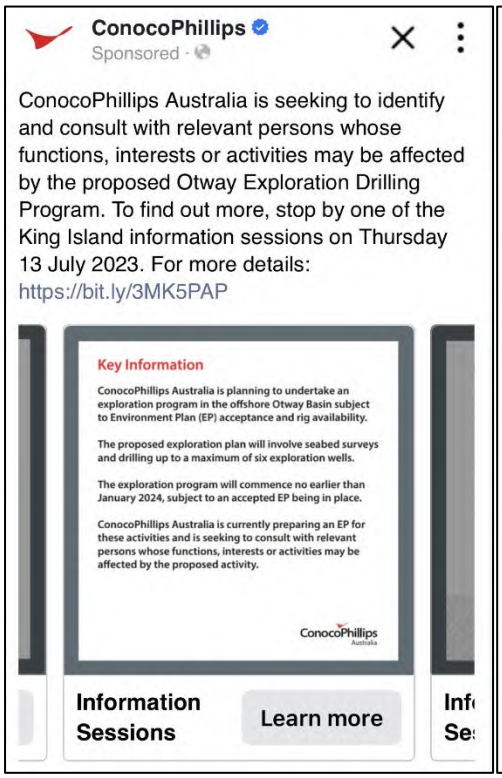
People Reached: 689 **Post Engagement:** 142 **Link clicks:** 46

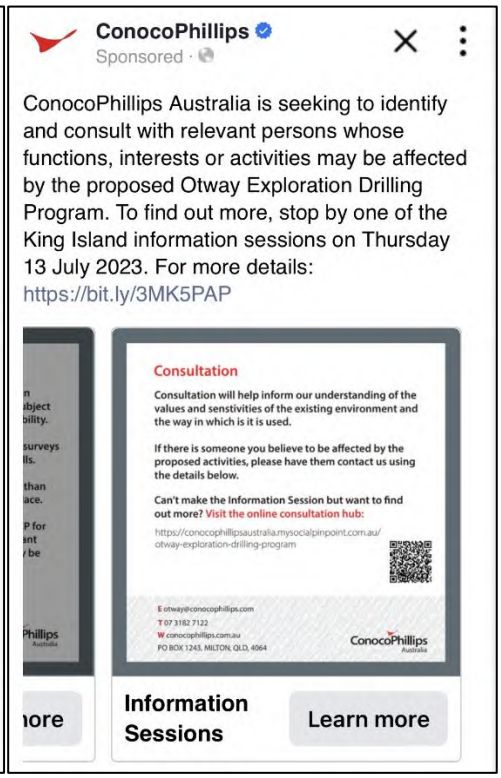
Geotargeted Locations: King Island, Tasmania

Link in post: [Home Page | Social Pinpoint (mysocialpinpoint.com.au)]









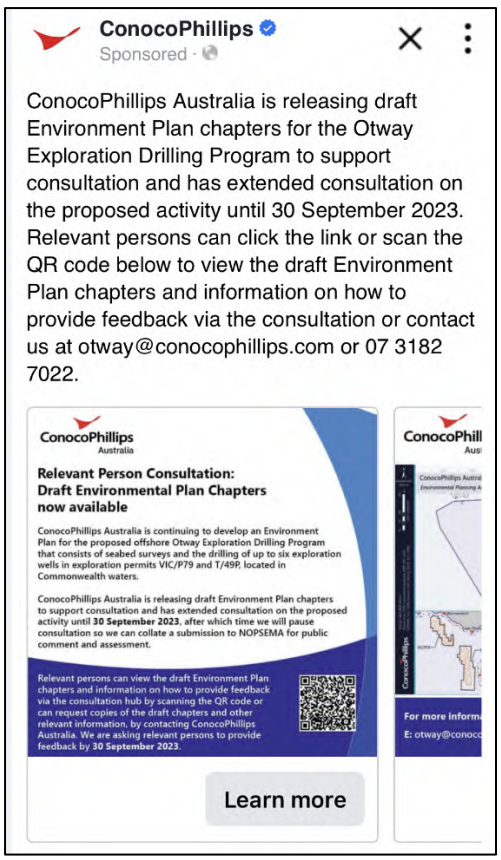
15 Sept 23 – 30 Sept 23: Draft EP Chapters/Public Comment – Facebook & LinkedIn Advert

Facebook

People Reached: 15,781 **Post Engagement:** 1,972 **Link clicks:** 608

Geotargeted Locations: By State – NSW, SA, VIC, TAS

Link in post: Home Page | Social Pinpoint (mysocialpinpoint.com.au)





LinkedIn:

King Island Courier

A Beacon for the Community

Vol. 38 No. 5 *Thursday, February 9, 2023* *$1.50*



Part of the crowd celebrating the premier annual event, Festival of King Island, and, inset, performer Kim Churchill jammed the mosh pit.

ISLAND PARTY TIME

PAM ROLLEY

AS THE sun rose Sunday morning and the weary FOKI crew started the breakdown of the festival site at Currie Harbour the call (or maybe a whisper) was "the best FOKI ever" – even from those who would not see the light of day for many hours,

Every performer repeated the phrase that organisers hear year after year ...

"FOKI is like no other festival; it is unique; the place is beautiful, the families, the kids, the scenery, the cheese...."

The Smokin Elmores/Skooterz from Tasmania had all ages on the hill to down at front stage rocking with two completely different styles of music.

"We have loved every minute," they said.

"As musicians you don't get the opportunity to sit and mix with other musicians.

"You are working; other festivals have you in a time slot to play, and then you leave.

"We have made some great new connections."

The mosh pit was jammed packed when Kim Churchill hit the stage.

Many were young children when Churchill played his first FOKI. He was joined on stage by Boo Seeka, and together they mixed their melodic styles and Boo with his high tempo drum beat grabbed the crowd by the throat. Churchill was able to get in some surfing and Boo kicked back in the green room and shared stories.

Flynn Gurry and Medanhit couldn't have more different music styles, but as storytellers drew both younger and older into their webs. Sumner's electronic vibe shook the Currie

Continued page 6

"Best ever" FOKI: Pages 4&5

TRANSFER ON HIGH SEAS- Page 2

Fiver drops new King

AUSTRALIA is removing the British monarchy from its bank notes.

Australia's Reserve Bank announced last week that the new $5 bill would feature an indigenous design rather than an image of King Charles III.

It is the only note that features an image of the monarch.

The King is expected to appear on Australian coins that currently bear the image of the late Queen Elizabeth II later this year.

Australia's Reserve Bank said the new $5 bill would feature a design to replace the portrait of the late queen.

The bank said the move would honour "the culture and history of the First Australians".

"The other side of the $5 banknote will continue to feature the Australian parliament," a statement said.

The Queen appeared on the £1 note in 1953 -1954 and all Australian banknotes had an image of the ruling monarch printed on them. When Australia moved to decimal currency the monarch appeared on the lowest denomination polymer note.

In 1992 Queen Elizabeth was added to the $5 note. The decision was not popular politically or socially according to the Reserve Bank Museum's website, as the image replaced Caroline Chisholm, who had been celebrated for her work improving the lives of immigrants.

Boat crew in high seas transfer

THE Wave Swell Energy crew last week responded to a call for help to transport an offshore oil and gas construction ship crew member who was onboard a vessel 3 km off Naracoopa.

Mustafa Bhatti, who lives in Currie, is regularly trotting the globe as an oil rig crane operator. He spoke to his friend of 10 years, Steve Phillips from MMA Offshore and heard that a crew member needed to leave the ship on compassionate grounds.

The Wave Swell crew Mustafa, Cody Rooks and Kane Denny in the company's ex-police, rigid inflatable zodiac left Naracoopa in rough conditions, completed the ship transfer and returned the crewman to shore.

"We cannot thank Wave Swell Energy enough for the assistance they provided with transporting one of our crew members, helping with accommodation and feeding him," Mr Phillips said.

"Our man was even driven to the airport the following day to catch a flight from King Island home because of a family medical emergency.

"The kind people on King Island did everything within their ability to assist us, even though there were some delays at our end waiting for approvals for the transfer plan.

"We changed the location for the boat transfer due to weather conditions and Wave Swell Energy moved to this location without hesitation. We are so impressed with the kindness and hospitality of the tight knit community on King Island.

"My good mate Mustafa could not do enough to help us out with arranging the logistics on King Island and even delivered us some beautiful King Island cheese when the transfer took place.

"We have heard from our crew member, and he is beyond grateful for the effort everyone went to carrying out this operation. He is now back where he needs to be. Thanks again to Wave Swell Energy, Mustafa and all those that made this a safe and successful operation. Thank you, King Island. We could not have carried this out without your help."



The MMS Crewman, left, returns to shore with oil rig crane operator Mustafa Bhatti.

King Island Courier
A Beacon for the Community

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Trainers develop ag career program

TWO of Tasmanian's most well-known agricultural organisations are joining forces to provide a unique career development opportunity for people working in the state's agriculture sector.

The Tasmanian Institute of Agriculture and Rural Business Tasmania are working together to create eNABLE, a new training program that brings together TIA's Extension Accelerator Program and RBT's Cultivating Rural Excellence Program.

The aim is to create a high-impact training program that is relevant for farm owners and managers, and agricultural extension professionals and consultants.

TIA director Michael Rose said eNABLE would provide a valuable opportunity for early and mid-career extension professionals to learn hand-in-hand with farm managers and owners to the benefit of the Tasmanian agriculture sector.



TIA director Michael Rose and Rural Business Tasmania CEO Elizabeth Skirving announce the eNABLE training.

"TIA's mission is to enable Tasmania's agriculture sector to accelerate primary sector productivity while maintaining land and water quality for future generations," Professor Rose said.

"Supporting the training and development of our agricultural leaders and innovators is a critical part of this and we welcome the opportunity to work alongside industry to deliver this training program."

RBT chief executive officer Elizabeth Skirving said eNABLE would provide an opportunity for agricultural professionals to interact and learn from each other while developing important leadership skills and resilience.

"We are delighted to partner with Tasmanian Institute of Agriculture to deliver the eNABLE program," she said.

"Collaboration on this project has allowed us to understand the important role of TIA and to look at the role of research, development and extension."

Ms Skirving said a valuable part of the program was the cross pollination that occured between experienced extension officers, newly appointed extension officers and agricultural leaders, offering extension and adoption as an everyday part of future farm management.

"Participants will build long-term connections by working together in workshops and exploring topics including business management, communication skills and human relations," she said.

eNABLE is a part-time program and will be delivered from April until October 2023.

The study commitments will include one full-day workshop and one two-hour online session each month.

The program is funded by the Australian Government Department of Agriculture, Fisheries and Forestry through the AgUp Program.

Applications are open until March 1.



Farm dogs will be at the show in an effort to break the hay bale jumping record.

Show back after Covid

KING ISLAND AGRICULTURAL, HORTICULTURAL AND PASTORAL SHOW

AFTER last year's cancellation, the 67th annual King Island Agricultural, Horticultural and Pastoral Show returns next month on Tuesday, March 7.

Show society secretary Claire Perry said the small group of dedicated volunteers had been working behind the scenes to get organised for a day full of family fun.

"We hope the island community will join us by supporting our local show tradition by exhibiting or entering our show day competitions.

"The show schedule is available now online at www.king island show.com or printed copies are available at Elders and IGA. There has been a considerable increase in Junior prize money placed throughout sections to encourage and reward participation.

"New exhibitors are always welcome and all the details of how to go about entering are listed in the schedule," Claire said.

Children's entertainment is a high priority and a new act, CJ's Puppet Show, was made possible with funds from Group 6 Metals. There will be a side show alley with games such as hook-a-duck and mini golf being made by King Island locals.

The committee has also been able to purchase two traditional amusement

Continued page 5

Material shortage

Solar farm delay

HIGH demand and material shortages in the global supply chain have pushed back the construction schedule of King Island's new Solar Farm. The $4.5M project, announced late last year for the Huxley Hill Wind Farm site, is intended to increase the amount of renewable energy produced on King Island and replace 300,000 litres of diesel on the island every year. The 1.5MW solar installation will also offset an additional 800 tonnes of CO2 per annum.

Simon van der Aa, Specialist Electrical Engineer at Hydro Tasmania, said the project team had recently learned that a key piece of infrastructure could not be delivered on time.

"Unfortunately, due to material shortages and high demand, the kiosk substation ordered to connect the solar farm to the King Island 11kV network won't likely be delivered until August/September 2023," Mr van der Aa said.

"This will result in site work likely stopping around April/May and then recommencing for a short period around September/October 2023, despite the original goal of finishing this financial year."

Hydro Tasmania is committed to working with stakeholders about the revised construction timeline. The solar project will form part of the existing King Island Renewable Integration Project (KIREIP), a world-leading, hybrid, off-grid power system. It is expected to remain in operation for at least 20 years.

To find out more around the King Island Renewable Energy Integration Project and to see the island's real-time energy demand and contribution download the free app on apple and android (search hydrokireip).

IGA KING ISLAND + LIQUOR

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OPEN 7AM TO 6PM
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THIS WEEK'S SPECIALS!

On Special - 08/02/2023 – 14/02/2023



Uncle Tobys Plus Antioxidants Breakfast Cereal 765g
$1.16 per 100g
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SAVE $2.14



Lindt Pralines Master Collection Chocolate Box 184g
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$14.50 ea
SAVE $9.49



BETTER THAN 1/2 PRICE

Kettle Native Finger Lime & Tasmanian Pepper Leaf Chips 150g
$1.99 per 100g
$2.99 ea
SAVE $3.36



Colgate Toothbrush 360 Degree Soft 1 Pack
$3.50 ea
SAVE $2.45



Cancer Council Sunscreen Sensitive SPF 50+ 200mL
$7.75 per 100mL
$15.50 ea
SAVE $6.25



Finish Quantum Ultimate Pro 0% Dishwashing Tablets 17 Pack
$1.12 each
$18.99 ea
SAVE $10



Cheer Cheese Tasty Block 1kg
$1.79 per 100g
$17.99 ea
SAVE $2



Patties Classic Beef Party Pies 12 Pack 560g
$1.96 per 100g
$10.99 ea
SAVE $2

PLUS MANY MORE SPECIALS IN STORE AND ON FACEBOOK

IGA WHERE THE locals MATTER

Specials available only at King Island IGA + Liquor. While stocks last. IGA Liquor supports the responsible service of alcohol. Tobacco and alcohol not sold to under 18's.

IGAVI9096_080223



Wendy Constable and Tash Overton on the gate.



Heidi George and Maggie Leutton.





Time out on the g

Planning begins to better

DESPITE predicted bad weather that all week threatened the Festival of King Island, record numbers attended both Friday and Saturday festival days and nights.

Families, younger and older King Islanders sat on the hill overlooking Currie Harbour, or positioned themselves under the numerous marquees protected by giant hay bale walls which were created as wind breaks in case the weather turned foul.

The bar served local Brewhouse beers on tap. The mammoth task of keeping the crowds fed and watered throughout the festival was taken up by the K&K Food truck, Murphy Summers with King Island Fresh, Mandy Potter in the Lions Food Van, Holey Donuts all needing to engage teams to keep the food lines moving quickly and at prices festival goers could afford.

The annual festival pie eating competition, sponsored by King Island Bakehouse was once again Saturday afternoon highlight. Tom Graham was simply too good for the gutsy field. Later, when seen eating a steak sandwich, and having consumed further beverages he said that he has an advantage in that "there's a lot of me to fill."

The kayak race, which was to replace the traditional home-built raft race, was cancelled due to the rough sea conditions.

"If people start building their rafts now, they will consider bigger cash prize incentives for FOKI2024," one sponsor said.

The sun shone, the littlest kids to the biggest danced and played and a great weekend was had by all (even if some will need a week to recover.)

As the hoodies and tshirts said, 'a fokin' good time'.



Christine Lincoln and Rachael Jordon.



The FOKI crew takes time out for a snapshot.



Sarah Ashley in the Green Room.



Cape Wickham staff.



Troy an

TOO GOOD IN LIFE TO BE FORGOTTEN

Always in
our thoughts,
Forever in our hearts,
Miss you so much.



Love you forever, Mum & Dad. XX

KING ISLAND
BREWHOUSE
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~ Thursday to Sunday afternoons from 1 pm ~
Outside these hours by appointment
Corey ~ 0455 666 138
Sarah ~ 0428 133 319



grass.



Ken Scott gets in the spirit.



Bianca Hill and Hannah Lewis ably assisted Murphy Summers of King Island Fresh (centre) to keep the FOKI food flowing.

'best FOKI ever'





LEFT: Signs of FOKI's time.

BELOW: Ambulance Officer Chris Green and FOKI committee president Kim George.



d Elle Smith.



Show back after Covid break

From page 3

games including a high striker sponsored by TRT Pastoral Group and laughing clowns sponsored by Greenham Tasmania.

The Hoof-to-a-Hook competition for beef producers had a successful re-launch last show after many years of absence.

Ms Perry said Proway Livestock Equipment had sponsored the prize money for this year's competition and a barbecue sponsored by JBS Australia would be held for entrants post show day to review the carcasses and hear the judge's feedback.

"There is also an equivalent carcass competition for fat lambs and show goers can take up the opportunity to bid on some locally grown prime lamb at a public auction on show day," she said.

"Also returning to show day is the whip cracking competition, with both open and junior sections. We encourage members of the community to participate in the event and we look forward to seeing their skills."

Dog jumping for small and large dogs is a crowd favourite and there are cash prizes for both whip cracking and dog jumping both sponsored by Waverly Station.

Since the last show day there have been showground improvements which include an electrical upgrade to allow stall holders more functionality and supported by a grant from the Tasmanian Government's Community, Sports, and Recreation Fund. Funding from TasPorts and the King Island Council enabled the purchase of new trestle tables and chairs for use in the pavilion and for stall holders.

While the show is organised by a small committee, the actual running of show day involves many more people.

"To thank existing show volunteers and encourage new people to join, we are holding a volunteer draw of two return air tickets at the end of show day.

"The tickets have been supplied by Sharp Airlines and King Island Airlines."

"To be included in this volunteer draw the show committee will place names of all who have helped in a designated job for a minimum of two hours."

Contact details for the show committee are listed in the schedule and website or to help, contact Claire directly 0438 017 860 / kishow.secretary@outlook.com.

FOODWORKS
KING ISLAND

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Cadbury Choc Favourites 570g — $15.99 EA — SAVE FROM $9.30

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Golden Circle Juice 1L Varieties — $2.99 EA — SAVE FROM $1.07

Nescafe Coffee Sachets 10 Pack Varieties — $4.99 EA — SAVE FROM $4.17

Pepsi/Schweppes 24x375ml Varieties — $25.99 EA — SAVE FROM $12.96

Lynx Deodorant & Body Spray 165ml Varieties — $6.50 EA — SAVE FROM $1.67

Palmolive Natural Shampoo/ Conditioner 350ml Varieties — $5.70 EA — SAVE FROM 66¢

Uncle Toby Plus Cereal 410-435g Varieties — $6.25 EA — SAVE FROM $2.08

Whiskas Cat Food 400g Tin Varieties — $2.95 EA — SAVE FROM 43¢

DAIRY & FROZEN

Bega Tasty Block 500g Varieties — $9.99 EA — SAVE FROM $1.87

Cheer Tasty Block 1kg — $17.99 EA — SAVE FROM $1.96

Nudie Pulp Free Orange Juice 1L — $7.50 EA — SAVE FROM 80¢

Tamar Valley Yoghurt 700g Vars — $8.99 EA — SAVE FROM $1.16

Pampas Pastry 1kg Vars — $6.99 EA — SAVE FROM $1.41

Connoiseur Ice Cream 4 Pack Varieties — $8.99 EA — SAVE FROM $2.69

DELI

Kabana — $17.50 KG — SAVE FROM $3.49

Triple Smoked Ham — $18.99 KG — SAVE FROM $4

FRUIT & VEG

Watermelon — $4.25 KG

Yellow and White Peaches — $7.50 KG

Truss Tomatoes — $7.50 KG

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kingisland@stores.foodworks.com.au

SCAN HERE TO SHOP ONLINE

Performers' high praise fo







Tasm



RIGHT: Headlne act Donna Fisk charmed the country folk.

ABOVE LEFT: Rick Munday Band Jarred Perryman, Sam Woolley, Jess Boyes and guest drummer Ernie Blakeman.

ABOVE RIGHT: The Smokin Elmores.

LEFT: Greta Ziller





From Page 1

night skies and introduced a modern alternative excitement that many would not have heard before. All three have asked if they could be considered for FOKI 2024.

The big voices of Donna Fisk, Andrew Swift and Greta Ziller exuded confidence and showed why they are master and mistresses of their art.

The local bands Rusty Falcon Band and The Rick Munday band enjoyed sharing the stage with seasoned troopers and having the opportunity to showcase their talent in front of a large King Island crowd.

Bi de Way, with relocated islanders, Di de Rooy, Phil Smith, and Launceston musicians Duncan and Oliver were happy to 'be back home.' Di said that coming to play at FOKI reminded them of what they don't have.

The standout for them was the completely family friendly nature of the festival. Donna Fisk also said her highlight and what she will take away from FOKI, is the memory of young children wanting to meet her and being excited.

"The kids. They were so excited by the music. I really appreciate that. It's this experience I'll remember. One might take up music, they will be in audiences, they are the future of music and as a performer, I loved that."

Festival of King Island president Kim George thanked everyone for their support.

"On behalf of the many involved in bringing FOKI 2023 together, thank you very much for everyone's support!

"We really do feel a great level of support for FOKI within the community, tourism, from the commercial operators and sponsors.

"Each FOKI is a year in the making," he said.

"King Island Council operations have been very supportive, and our compliments to the punctual and effective delivery of materials (toilets, signage, rubbish bins, marquees) for our infrastructure build and the rapid turn-around on the Saturday morning and pickup on Monday after our site breakdown and cleanup.

"Everyone from artists to patrons, are being very complimentary about the festival, and the general theme is clearly "best FOKI ever"... so we will lock that one in ... and take up the mayor's challenge of "a hard act to beat" for FOKI 2024.

"As with each year, we have a long list of big improvement points that we intend to implement next year... and we aim to repeat "Best FOKI ever!"

Mayor Marcus Blackie said FOKI was an amazing event and - in his humble opinion - your best lineup of music acts ever.

"Please accept and pass on to all of the team our congratulations on a fantastically successful FOKI for 2023.

"It will be a hard act to beat in the years ahead. Everyone I have spoken to had a ball, all ages were able to enjoy themselves in total safety. You handled the weather challenges very well and the venue continues to be brilliant for such concerts and what a plug for King Island.

As the sun goes down on FOKI 2023, the last site inspection completed, the planning for FOKI 2024 begins.

r FOKI



hanian band Skooterz



High-tempo Boo Seeka



Surfing singer Kim Churchill made a return visit to this year's FOKI.



Medhanit shows her unique style.





Local favorites Rusty Falcon.



CENTRE: Master of his art Andrew Swift.
ABOVE: Story teller Flynn Gurry

Reunion for GG, Mayor

AUSTRALIA's Governor-General General David Hurley and Mrs Linda Hurley will visit King Island on May 19.

Last year King Island was declared National Keep Australia Beautiful (KAB) overall winner and the island will be hosting the National Keep Australia Awards.

As Patrons of KAB, the Governor-General of Australia, His Excellency, General David Hurley and Mrs Linda Hurley will visit King Island to attend the Awards.

"Depending on the time we have available we will design a program to show them some of the sights of King Island as well as meet our great people, prior to officiating as Patrons of the Keep Australia Beautiful Awards," Mayor Marcus Blackie said.

"It is a great honour for King Island to host the Governor-General and I know they are very excited to visit us.

"As far as we can ascertain this will be only the third time a Governor-General has visited King Island, the most recent being Quentin Bryce about 10 years ago.

By contrast King Island has only been visited by two prime ministers over the years, Robert Menzies and Julia Gillard.

"The Governor-General and I also have a personal connection. I served as his military personal assistant in Darwin in 1999.

"It turned out to be a huge year for the both of us because East Timor exploded on our doorstep," Cr Blackie said.

The official visit program will be announced closer to the time.



The Governor-General and Mayor serving together in the Army, Darwin 1999.

Stewie prepares on grass

LAST weekend King Island born, Tokyo Olympic finalist in 1500m, current world Number 3, Stewart McSweyn returned to Victoria to avenge his close second in his last Beachside Gift run.

The Gift is one of Australia's preeminent athletic events.

McSweyn started from scratch in the handicapped 3200m race as part of preparation for the World Cross Country Championships in Bathurst on February 18.

McSweyn's preparation – handicapped races on grass – is in contrast with other members of Australia's 28-strong team for the World Cross Country Championships, who have lined up to compete on the road in the Maragume half marathon in Japan.

The William Buck 2 Mile Championship for Men at the Gift was run just inside the boundary line of the AFL ground at Mentone Reserve - an undulating surface that was not fast underfoot.

McSweyn picked up the rest of the field and had a sprint finish with rising distant talent Jude Thomas, and finished four seconds behind the winner. Logan Janetzki who was running off a generous mark of 220m to took second.

McSweyn headlines Australia's 4x2km relay team in Bathurst and Janetzki will take on the world's best junior distance runners at the World Cross Country Championships.



Stewart McSweyn competes in the 3200metre-2 Mile Championship for Men at the Beachside Gift in Mentone Victoria last weekend. Picture: INSIDE ATHLETICS

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Sweet win for beekeepers

NEW Zealand's long running campaign to trademark and claim ownership of the name "Manuka honey" has hit a brick wall as they withdraw their appeal on earlier rulings in the UK and European union.

It is a major win for Tasmanian and King Island manuka honey producers.

Federal Liberal Member for Braddon, Gavin Pearce said that for five years, the Australian Manuka Honey Association has been battling New Zealand and their attempts to trademark the term "Manuka" as exclusively their own.

"For years, I've been supporting our local manuka honey industry to shut down this ridiculous and greedy legal battle.

"Manuka honey originates from bees that collect the nectar from the Leptospermum genus. Australia is home to 85 of the 87 known Leptospermum species worldwide and we have produced manuka honey since European honeybees were introduced in the 1820s."

"This was simply a greedy attempt by New Zealand to monopolise the term 'Manuka' honey for their own commercial gain.

"Quite rightly, it's failed.

"Thank you to all of Tassie's manuka honey producers for the heavy lifting you've done to shut down this absurd legal claim," Mr Pearce said.

By the 1920s and 30s King Island exported honey to Melbourne markets weekly.

The ability to produce a high grade monofloral manuka honey puts the brand King Island Pure Manuka in a unique and advantageous position.



King Island Pure Manuka owner Rob Skellet with some of the company's hives.

King Island Pure Manuka owner Rob Skellet says the benefit that King Island has over much of the manuka forests in New Zealand, is that there are no floral alternatives available to bees on King Island.

"The manuka is the only floral source available to the bee colonies, and as such they have no choice but to harvest the nectar from the manuka tree when it is in flower from late October through to early January.

"This ensures that King Island manuka honey is a pure monofloral manuka honey, that is not tainted by other floral sources."

The literature says that manuka honey contains methylgloxal, and it is an antibacterial ingredient capable of stimulating collagen, has healing capabilities, and works like an antibiotic and much more.

It is clear from New Zealand's long drawn out battle to trademark and claim ownership of the name "Manuka honey" it is big business.

The market value of this sticky special golden liquid is $500 a kilo. A 230gm jar of New Zeaiand 'rare harvest' honey sells for more than $3,700 a jar at Harrods in London and the demand for manuka honey surged during the pandemic as the world searched for elixirs.

A January 27 report published by Allied Market Research "Manuka Honey Market by Type" said the global manuka honey industry size was valued at $455.4 million in 2021, and is projected to reach $776.4 million by 2031.

Then there is additional value in sprays, syrups, eczema and cosmetic creams, soothers and healers, lozenges – 'with added manuka honey.' Research may yet reveal more applications and usage.

Mr Skellet, graduated in Agricultural Science then entered the finance sector.

In 2012 he established King Island Pure Manuka, in Nugara, with hives and extraction facility.

In January 2020, the first manuka honey was harvested and sent to the University of Sunshine Coast, the preeminent body for honey and nectar testing in Australia.

Drawing on these results, the company is accelerating their business plan.

"It's my intention to develop a vertically integrated Manuka Honey operation," he said.

With four leases covering 10,000ha of wild manuka forest, King Island Pure intends to start small and slowly build into a substantial manuka honey producer."

E-waste collection

I AM collecting e-waste to take off island in my car, for recycling at Officeworks. The types of things I will take are electronic products, computers, and computer related, mobile phones, batteries, and printers that are no longer wanted or working.

I've already collected close to 100 kilos of toxic junk that won't end up in King Island landfill, so let's keep up the good work.

Cut off date is the end of February, so message me on Facebook to arrange collection or you can drop your ewaste at the Currie op-shop (unless it's huge) and I'll do regular pick ups from there.

– TRACEY COLLYER

Works on South Road

THE King Island Council started works on the South Road Widening Project on Monday, February 6.

The council acknowledges and appreciates the concern expressed about the condition of the road by regular users and residents. This project has been impacted by supply difficulties, weather conditions, and staff availability.

Workers will be working on the west (UHT) side of the road at this stage. Using traffic lights and zoning off one side of the road means a single lane can be kept open for the duration of these works.

Our intention is to improve the condition of the road, while progressing towards having the road widening completed.

PHOENIX COMMUNITY HOUSE Inc

GENERAL MEETING

Date: 22nd February 2023

"Legs" - 3.45pm Meeting

All members and interested persons welcome.
Program Coordinators please bring reports.
Light Afternoon Tea provided - Drinks at own expense.

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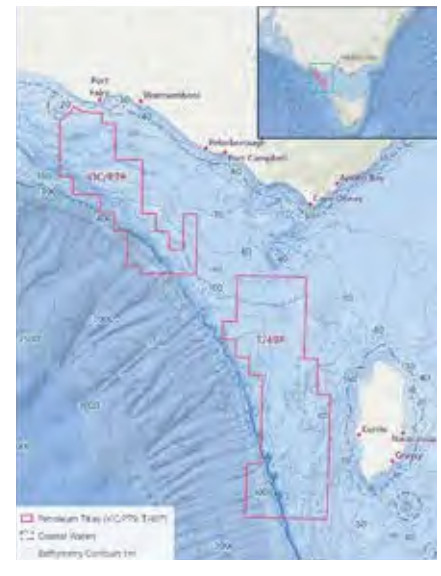
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Consultation

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters.

The proposed exploration program will consist of seabed surveys and the drilling of up to six exploration wells.

This is a continuation of our exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs.



ConocoPhillips Australia has commenced preparation of an Environment Plan (EP) that will seek acceptance from the regulator for this exploration program. As part of EP development we will undertake consultation in line with a prescribed regulatory process.

If you would like more information or think you may be affected by the proposed activities, please use our QR code or contact us using the details below.

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Scam alert for online lovers

THE Australian Competition and Consumer Commission (ACCC) Scamwatch is warning people to be vigilant for scams online, in social media and dating apps as Valentine's Day approaches.

They say that scammers are becoming more sophisticated and broadening their targets and methods of scamming.

Scamwatch provides information to consumers and small businesses about how to recognise, avoid and report scams.

Farmers and small businesses in rural and regional areas are urged to be cautious, particularly when buying heavy machinery, following a spike in scams targeting the agricultural sector late last year.

The most common scam targeting farmers involved the sale of tractors and heavy machinery.

"Unfortunately, we have seen a concerning rise in agricultural scams in recent years, as farm businesses increasingly purchase machinery online.

"These scams are causing substantial financial losses and emotional devastation," the ACCC said.

The scammers use legitimate platforms, have fake websites, and offer good online deals.

The ACCC advises to search the business and address and call a nearby business to check they exist, and request live video of the equipment.

It's a red flag if they make excuses or will not accept a personal inspection.

Scamwatch says that losses to scams are likely to be much higher than reported. Their research shows that of all scam victims, only around 13% report to Scamwatch.

With Valentine's Day approaching they warn that romance scammers play on emotional triggers to take advantage of victims.

"They often use 'love bombing' techniques, such as professing love and affection very quickly, to try to influence victims to send money, gifts or financial information."

While King Islanders may think they would not fall victim, there have been on-island cases in recent years where either the police have been advised or others have intervened and stopped large financial transfers.

The ACCC says a variation is romance baiting, where once a connection has been established, the offer is to show the victim how to invest in cryptocurrency or bitcoin.

The romance scam turns into an investment scam.

According to the ACCC, people aged over 55 made up close to half the losses to romance scams.

A red flag is when the scammer makes excuses as to why they cannot use their video function when asked or ask for money (or cryptocurrency) for pay for airfares, gifts, bills, or finance a meetup.

Scammers make use of SMS, Messenger, similar texting apps, phone calls, emails, and letters.

Scamwatch is currently warning of fake social media accounts which impersonate Government organisations.

The mygov scam is doing the rounds again via email and SMS, advising that the recipient is eligible for a rebate.



The modern, well-equipped King Island Childcare and Early Learning Centre.

Centre looks to future

THE King Island Childcare and Early Learning Centre Inc has had to lifts fees to create more childcare positions and to increase staff.

The centre committee has called for donations to support their services and programs.

"The committee is very proud to be continuing the tradition of over 50 years continuous provision of childcare on the island," centre leader Diane Rawlings said.

"As our community has grown so has the requirement to provide more facilities to support families on the island.

"The centre provides an essential service enabling local businesses on the island to encourage working families to come into the community.

"Many families call the centre to check childcare availability before accepting employment on King Island.

"As a committee run organisation, KICC&ELC Inc is a not-for-profit association, which is quite unique nowadays for such facilities.

"The centre is licensed for 65 positions from the ages of 0-12 years under the auspices of the National Childcare Regulations including the guidelines for staff: children ratios.

"Our current level of staffing inhibits our ability to make all these positions available.

"Presently on any given day we can have about 45 children at the centre. We are actively engaged in recruiting new staff to join our team," Ms Rawlings said.

"To support our educational programmes, we are calling for suitable donations to continue our provision of our services.

"Currently, we are funded through childcare fees and support from CCCF Sustainability Fund and Capital Funding.

"We have been recently advised by CCCF that we need to increase our childcare fees to remain financially viable. We have been successful in applying for a wide number of grants to enhance our learning environments and Educational Programmes.

"Our business is run with passion and dedication to support families in our unique community, to ensure the well -being, education, and development of all children - who are our future.

"The saying goes 'It takes a village to raise a child' and we continue to assist all families on King Island.

"I would like to thank everyone for all your help and support and to let you know that - we will not be closing."

If any further details are required regarding fees, employment and donations to support our programs, please contact the Centre on 03 64621268 or email manager@kingislandchildcare.com

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King Island Courier
A Beacon for the Community

Golf

Course in ordinary state

BUGGY

THE JBS King Island Beef Monthly medal was played in very windy conditions. Despite good rain during the week the course a bit ordinary at the moment.

No doubt conditions will improve after such an extended dry spell. A good field of 23 players turned out for the stroke event.

The scores were a bit ordinary as well with three players on 75 nett. The computer gave the winner to Roger the saint Clemons on a count back from Jim retired Cooper and the early bird Freddy Tatawaga. The winner was rather surprised as a 75 nett doesn't usually take out the day.

Nearest the Pin 3/12 Richard Collins
18th Tim Barnes
Money Hole – no-one

Other scores of some note Tim Barnes 77 nett and several players 78 nett – Alan Muir, Richard Collins, Tony Scrivenor. The rest of the field in the 80s.

AROUND THE TRAPS

A comedy of errors on the par 4 second hole saw two players each reach double figures. The position of the pin caused a few issues. Putting from the side of the green resulted in the ball ending up in the bunker- three times in a row for Mick Lincoln. Not to be outdone, Gerry Noble, despite years of experience, managed to repeat the performance.

One unnamed 'A' Grade golfer managed to return to distant cricket memories recording a ton.

One of our regular members who rarely missed a Saturday game and helped on the course at times has departed the island. Dallas Shanker Ryan. He will be missed with his colourful dress attire and ha very good low handicapper.

Next week will be a Three Person Ambrose. Players are encouraged to invite someone to make up a team.



ABOVE: Captain Chris Richards displays all the Moose Award winners.



RIGHT: KIGBC bids farewell to member Dallas Ryan.

Clay shooters enjoy the get-together

KING Island Clay Target Shooting Association competed in the Tasmanian state trap titles at Evandale and was represented by Nico Monro Pruis, Josh Munn, Matthew Archer, Ron Johnson, James Hill and Rudolf Britz.

Former King Islander Sean Johnson made the top 15 for badge awards and in the top 5 to represent Tasmania. His father Ron won the double barrel event.

Matthew Archer won Day 1 C Grade Champion of Champions, Day 3 C Grade State Single Barrel Championships and Day 4 Overall C Grade High Gun competition. After the event Matthew said, "It's just fun for us all. We all had a great weekend and we are already looking forward to next year. This is not a sport you do just for the wins it's very much a social get together of likeminded mates from all over Australia."



Matthew Archer after he cleaned up in C Grade at Evandale.



Ron Johnson with son well known King Islanders Sean Johnson and partner Sarah Mott.

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Free TAFE expands with changes to eligibility

MORE south-west Victorians will be able to access free TAFE courses after the State Government expanded eligibility for the program.

Potential students at the Portland campus of South West TAFE no longer have to meet specific age, upskilling or reskilling requirements, meaning most people are now eligible to study selected courses under Free TAFE.

Under the changes, more people can enrol in their first Free TAFE course regardless of their prior skills and qualifications, and the once-in-a-lifetime limit for Free TAFE has been removed for occupations such as nursing, community services, building and construction and early childcare.

Students can now access free priority courses under the Free TAFE Pathways Program, a group of courses that complement each other and allow students to continue to train for their career.

South West TAFE is offering more than 30 Free TAFE courses in 2023, including community services, mental health, personal services, individual support, disability, nursing, accounting and bookkeeping, agriculture, building and construction, civil construction, information technology, and early childhood education and care.

Free TAFE covers tuition fees for priority courses.

South West TAFE chief executive, Mark Fidge said Free TAFE reduces the financial barrier for students wanting to train in courses that lead to in-demand jobs.

"These changes make it easier for people to access a Free TAFE course," he said.

"Being able to complete any other course within the same pathways program tuition fee-free through the Free TAFE Pathways program will be a big advantage for many people."

"Expanding eligibility for Free TAFE means there are more opportunities for local people to access high-quality training that will lead to identified job opportunities," he said.

Mr Fidge said South West TAFE was closely connected and responsive to the employment and training needs of local industry.

The new opportunities arise as South West TAFE continues to record outstanding results in student, staff and employer surveys.

According to government surveys released in late 2022, South West TAFE is number one among Victoria's 12 TAFEs for student satisfaction with a ranking of 85.6 per cent, employer satisfaction with 87.9 per cent, and for the number of students who would recommend South West TAFE as a registered training organisation at 86 per cent.



JO Jo Spook is the judge of this year's Portland Art Show. Picture: SUPPLIED

Jo Jo's back to judge

CHALPAT SONTI

SHE'S been here, she's won and she's coming back to judge.

Robe artist Jo Jo Spook will be the judge of this year's Portland Art Show, to be hosted by the Rotary Club of Portland and held at the Civic Hall from March 31 to April 2.

Entries for the show are open until February 24, with successful artists notified on March 2.

Ms Spook is no stranger to Portland, winning the People's Choice Award at the 2021 Sculpture TRAILS exhibition and returning last year to not only exhibit but host a beach rope basket making workshop.

Rope gathered from beaches was transformed into exotic colourful pieces by the 20 enthusiastic participants.

This time around Ms Spook will also be hosting a jewellery making workshop as part of Arts April, as well as entering more sculptures at the TRAILS exhibition.

She has exhibited around Australia over the past 20 years.

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Otway Exploration Drilling Program
Consultation
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The proposed exploration program will consist of seabed surveys and the drilling of up to six exploration wells.
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NEW PROFICIENCY RATINGS

Ministers toughen NAPLAN standards

NATASHA BITA
EDUCATION EDITOR

Higher pass marks for reading, writing and maths tests in schools will be set this year after education ministers vetoed plans for politically correct report cards.

Stronger minimum standards for the National Assessment Program – Literacy and Numeracy were ordered by federal Education Minister Jason Clare and his state and territory counterparts on Friday.

"We are creating strong and appropriate standards that are higher than the current minimum standards, following consultation with families and teachers," Mr Clare said.

Ministers agreed the new proficiency levels – to be drawn up by a panel of expert teachers before reports are issued in July – will be set at a "challenging but reasonable standard of literacy and numeracy expected for the child at the time of testing".

They shot down a controversial proposal by the Australian Curriculum, Assessment and Reporting Authority to describe failing students as "developing" the so-called three Rs of reading, writing and arithmetic.

ACARA had wanted to describe student achievement as "developing, approaching proficient, proficient or highly proficient", as revealed in The Australian on Friday.

But ministers voted instead to describe the lowest-performing students as "Needs Additional support", with below-average students "Developing" their skills, those who meet the standards rated "Strong" and the top performers "Exceeding".

"These new standards will give teachers and parents better information about what a student can do," the ministers stated.

"They will simplify reporting, replacing the current 10 NAPLAN bands and national minimum standard, allowing parents and carers to know at a glance whether their child is where they need to be in literacy and numeracy, which are skills that underpin all other learning.

"These updates to NAPLAN mean that students who need it can get more targeted support."

NAPLAN, which for the past 14 years has been conducted in May with pen-and-paper testing of every student in years 3, 5, 7 and 9, will brought forward to March this year. And for the first time, all tests will be online and interactive, so questions are adjusted to each child's ability.

But the new system means student performance this year – the first without major disruptions from Covid and natural disasters – cannot be directly compared to past years of NAPLAN results.

Education ministers agreed that individual states and territories can ask ACARA to find a way of comparing results.

Literacy specialist Jennifer Buckingham warned the changes would "create a new Year Zero for NAPLAN, making it difficult if not impossible to track changes in system and school performance over time, and assess the impact of changes to policy and practice".

"The description of the lowest group as Needs Additional Support has some merit, but there is a big qualitative leap between the next two categories of Developing and Strong," she said.

"It is difficult to see how the changes add clarity and precision to the reporting."

ACARA chief David de Carvalho said the Strong and Exceeding categories would mean students' "literacy or numeracy skills are where they should be".

"If your child has not yet achieved proficiency, then they will either be in the Developing Category or the Needs Additional Support category," he said.

Mr de Carvalho said the new standards would be set "using the professional judgment of panels of expert teachers".

Centre for Independent Studies education program director Glenn Fahey argued the descriptions were too vague, and the gradings should be "well below proficient, below proficient, proficient and well above proficient".

'Casuals underpaid and uni managers knew it'

EWIN HANNAN
WORKPLACE EDITOR

The University of Melbourne has been accused of underpaying casual staff and making false or misleading records over a period of almost three years.

The Fair Work Ombudsman announced on Friday that it had launched Federal Court action against the university, alleging it failed to pay 14 casual academics for all hours of marking work at the hourly rates required under its enterprise agreements.

According to the FWO, the Faculty of Arts staff at the university's Parkville campus were paid based on "benchmarks", leading to them being collectively underpaid $154,424.

Examples of the "benchmarks", which varied depending on the school in the faculty, included payment for marking at a rate based on "4000 words per hour" and at one school on "one hour per student".

Individual underpayments ranged from $927 to $30,140 and occurred between February 2017 and December 2019.

Staff allegedly had to enter their hours worked into the university's human resources information system according to the benchmarks, rather than according to the actual hours worked.

The FWO alleged the university failed to record all hours worked by the casual academics, and that the university made and kept records known to some managers within the faculty to be false or misleading.

The regulator alleges the enterprise agreement breaches are "serious contraventions" under the Fair Work Act, which means the potential maximum penalties are 10 times higher than the penalties that would otherwise apply.

In addition to penalties for the alleged serious contraventions of up to $630,000 per breach, the university faces up to $63,000 per breach for the other allegations.

The FWO alleges the university expressly, tacitly or impliedly authorised the contraventions because of a corporate culture involving the use of marking benchmarks.

It is also alleged that a number of specific senior leaders in the faculty knew of the benchmarking practices and that they resulted in employees not being paid for all time spent marking.

Fair Work Ombudsman Sandra Parker said allegations of "universities underpaying their employees by systematically failing to follow their own enterprise agreements are of great concern".

Three of the academics held a PhD for at least part of their employment, which entitled them to higher hourly rates under the enterprise agreements. At least 12 of the employees have been fully back paid.

It is the second FWO action taken against the university. The regulator alleges the university coerced and took adverse action against two casual academics to stop them from claiming payment for work performed.

In a statement on Friday, the university said the legal proceedings related to a "historical issue" of underpayment of casual staff, and they had been back paid.

But the FWO said the conduct occurred up to the end of 2019, a little over three years ago.



From left: a Vtmnts offering, Olivia Rodrigo, Margot Robbie, Katie Holmes, a Christian Dior design, Vtmnts for her, and, front centre, a Hermes bag

Dressing for recession, it's all the fashion

A-listers have read the room and they're toning it down

GEORDIE GRAY

Y2k maximalism, jewellery, high-maintenance hair, gone-in-a-flash microtrends, logomania, and dopamine dressing – it's all out. TikTokers are predicting that we're moving away from luxury and embracing dressing for a recession.

"Recession-core" has entered the lexicon after being coined by TikTok trend forecasters during the awards season when they saw that celebrities en masse were ditching jewellery.

On the red carpet, Margot Robbie, Daisy Edgar Jones and Ana De Armas all opted for exposed decollateges where statement necklaces ought to be. The dresses got more austere, and the beauty was pared-down. Opulence gave way to a sombre correctness.

Ainsley Cootes, a 20-year-old brand manager from Melbourne and an amateur TikTok trend forecaster at @melbgirlambassador, says "recession dressing is a response to having less money circulating".

It's not that the A-listers are feeling the pinch, she says, rather, they're reading the room.

"People who have more money don't want to flex as hard," Cootes says.

We've seen it happen before. In the early-noughties blinged-out, bedazzled and logo-tastic style reigned supreme. Then the Great Recession hit (the global financial crisis), and while the wealthier shoppers still bought luxury, they moved away from obvious logos and status-signalling pieces and on to under-the-radar design.

Take The Evelyn Bag from French luxury house Hermes, which features a canvas strap and subtle perforated "H" logo. The understated piece was originally designed to hold horse-grooming equipment and was carried exclusively in the brand's riding department until its popularity surged during the recession, and that demand moved it to the main floor. "The aesthetics of consumer products are linked to the economy they were created during," says Cootes. "They are designed to speak to people's relationship with money."

'The aesthetics of consumer products are linked to the economy they were created during'

AINSLEY COOTES
BRAND MANAGER

Simply put, when the economy is in the gutter, it's naff to flaunt wealth.

Delaney Bryant, another TikTok trend forecaster, predicts that celebrities adopting this low-key style will trickle down to consumers. "Everything in fashion is connected to everything," she says, citing the famous cerulean blue explainer scene from The Devil Wears Prada.

The autumn 2023 menswear shows in Paris and Milan were remarkably minimalist. Full of spare, understated looks, "reductionist" tailoring, utilitarian bags, and muted colours like black, grey, nude and oatmeal. Gucci, with Alessandro Michele no longer at the helm, presented its quietest collection in years.

Vtmnts offered "a collection that reflects the current times", with clean-cut statement pieces, both genderless and trendless. The press release for the collection, hash-tagged #FightTheInflation, promised "sustainability" and "fair prices".

Cootes suggests people will adopt simpler, more functional clothing. "If you fill your wardrobe with really plain clothes, you can just wear them a lot more."

Ashley Vallis, director and designer of Yamba-based label Summi Summi, says there's growing demand for monochromatic, simple pieces. "With the cost of living on the rise, people are looking for pieces with longevity that bring more versatility to their wardrobe," she says.

With the Great Recession, "recession roots" and the embrace of ombre hair replaced the hemline theory as a harbinger of our economic woes.

This time, Edwards and Co founder and colourist Jaye Edwards says that with the cost of living on the rise, more clients are opting for low maintenance, future-proof colours and cuts.

"Clients are after something that will stand the test of time, increase the longevity of each colour service," he says.

Industry 'won't hit' Heritage List bid

PAUL GARVEY

A looming wave of major industrial development on Western Australia's Burrup Peninsula will not jeopardise a proposed World Heritage listing for the region's rock art, the WA government says.

Speaking as a formal application for the rock art-rich Burrup Peninsula, or Murujuga, to be added to the UNESCO World Heritage List was confirmed on Friday, WA Environment Minister Reece Whitby said he was confident the industry expansion on the doorstep of the area could be appropriately managed.

"They (UNESCO) will understand we've got the balance right," he said.

"There's an enormous amount of work to ensure the balance between industry, which has existed here for many decades, and local environment and cultural values are protected."

The Burrup Peninsula is home to the world's largest rock art collection, with more than 1 million petroglyphs – many of which date back tens of thousands of years. The Burrup is also the site of some of Australia's largest industrial projects, including Woodside Energy's North West Shelf and Pluto liquefied natural gas plants.

Woodside is poised to double the capacity of Pluto and extend the life of the North West Shelf out to 2070, raising concerns among conservationists and archaeologists who believe emissions from the plants are accelerating the erosion of the rock art. Private company Perdaman is also poised to begin construction of a new $4.5bn urea plant, with several pieces of rock art set to be disturbed as part of that plan.

Numerous pieces of rock art were damaged, destroyed or relocated after the Burrup was first identified as heavy industry site in the late 1960s. While Woodside itself has acknowledged the shortcomings in its practices from that era, Mr Whitby said industry had existed there for decades "and we've managed that very well in the past".

An archaeology study last year, comparing photos of rock art from the 1960s with contemporary images, argued that petroglyphs closer to the Burrup chemical and gas plants appeared to have suffered more erosion than those further away.

One of the first archaeologists to study the area, Robert Bednarik, has also argued that acidity levels in rainfall have increased sharply since the arrival of industryand were damaging the patina of the rock art.

MAKING A DIFFERENCE SO SOUTH AUSTRALIA THRIVES
Government of South Australia

Director, Biosecurity Operations
Department of Primary Industries and Regions SA

Protect South Australia's economic powerhouse

Drive strategy and organisational success

Support the State's largest export sector

South Australia (SA) is internationally recognised for the quality of its agriculture, food and wine. Our regions are the backbone of our state and the economic powerhouse that drives prosperity for all South Australians. The Department of Primary Industries and Regions (PIRSA) is a key economic development agency working in partnership with our primary industries, regional stakeholders and across all levels of government to advance the prosperity and sustainability of SA's primary industries and regional communities.

PIRSA is seeking a Director, Biosecurity Operations (SAES 1) to support the Executive Director, Biosecurity and Chief Executive in delivering national and local biosecurity programs within SA. Through the leadership of a multi-disciplined operations team, the Director, Biosecurity Operations will be responsible for field operations, compliance and enforcement, and stakeholder management across a range of regulatory functions. You will develop and deliver biosecurity programs including PIRSA's Emergency Management framework and ensure regulatory obligations, Government objectives and strategic operations are achieved.

The successful candidate will be a strong, outcomes focused leader, with a proven track record at a senior management level within a regulatory or compliance focused organisation. Your ability to motivate a multi-disciplined team to achieve objectives will be complemented by your ability to effectively support and contribute to an executive team. In addition to holding a high standard of ethics and integrity, you will lead by example and work collaboratively to influence a positive cultural shift across the division. Alignment with the core values of the South Australian Public Sector is essential, along with tertiary qualifications in a relevant field.

Confidential enquiries can be made to Katherine Myers-Scott at Morton Philips on (08) 8210 8510. Applications are welcome in Word format through SEEK.

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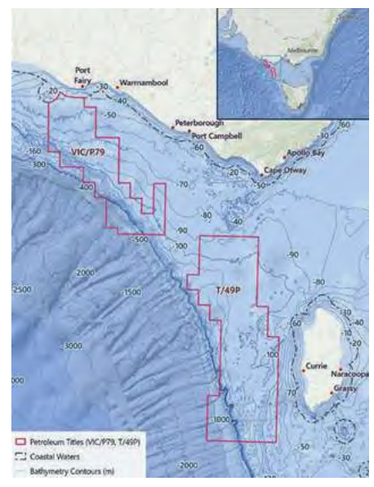
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New Norfolk High School has removed toilets to stop kids smoking and vaping. Inset: One of the cubicles with its toilet removed.

“The students that don’t smoke or vape are getting punished and it’s not fair

PARENT OF A YEAR 8 STUDENT

plain. “This is worse than prison,” one parent commented online.

“Prison people don’t have to wait for a toilet and I bet the staff have doors on their toilets and they don’t have to wait in line to do their business ... absolutely disgraceful and against all human rights.”

Another mother said it was “ridiculous” that students were “lining up to use the bathroom instead of eating lunch” in between classes.

“As a parent we pay school fees for the education and care of our children. The Education Department have a duty of care to look after our children’s wellbeing and education,” she said.

“Does one bathroom mean that teachers will not be monitoring bathrooms? What happens if a student is in distress, self-harming, seeking refuge from bullying, or in need of assistance?”

Labor education spokesperson Josh Willie believed staff shortages may have contributed to the problem.

“Schools are under stress because of staff shortages and it may be they don’t have the staff to supervise the toilets,” he said.

“But as the video shows they have pulled toilets out which is just not appropriate.”

A Department of Education spokesperson said they were working with the school to “increase access to student toilets by Tuesday”.

“The department has closely monitored operations at the school today and will continue to do so until the situation is rectified.

“The department apologises to the students and families of New Norfolk High School.”

One parent told the Mercury that “quite a few parents” had, like her, contacted the Education Department after students returned from holidays to find “one toilet per gender per grade”.

“The doors were all completely removed. Not even a door was left on the single cubicle that actually has a toilet. Because of all the hype today, a door has been put back on apparently.”

Another parent of a year 8 student said her son brought it to her attention on Thursday, saying “it was not right”.

“The students that don’t smoke or vape are getting punished and it’s not fair,” she said. “Then he said what about the girls that have their monthlies (periods)?

“He said it’s disgusting as they wouldn’t be able to have any privacy and they wouldn’t be comfortable. It’s not fair for any student to have their toilet privilege taken away.

“Smoking has been around schools for I don’t know how long. There is a better way around this.”

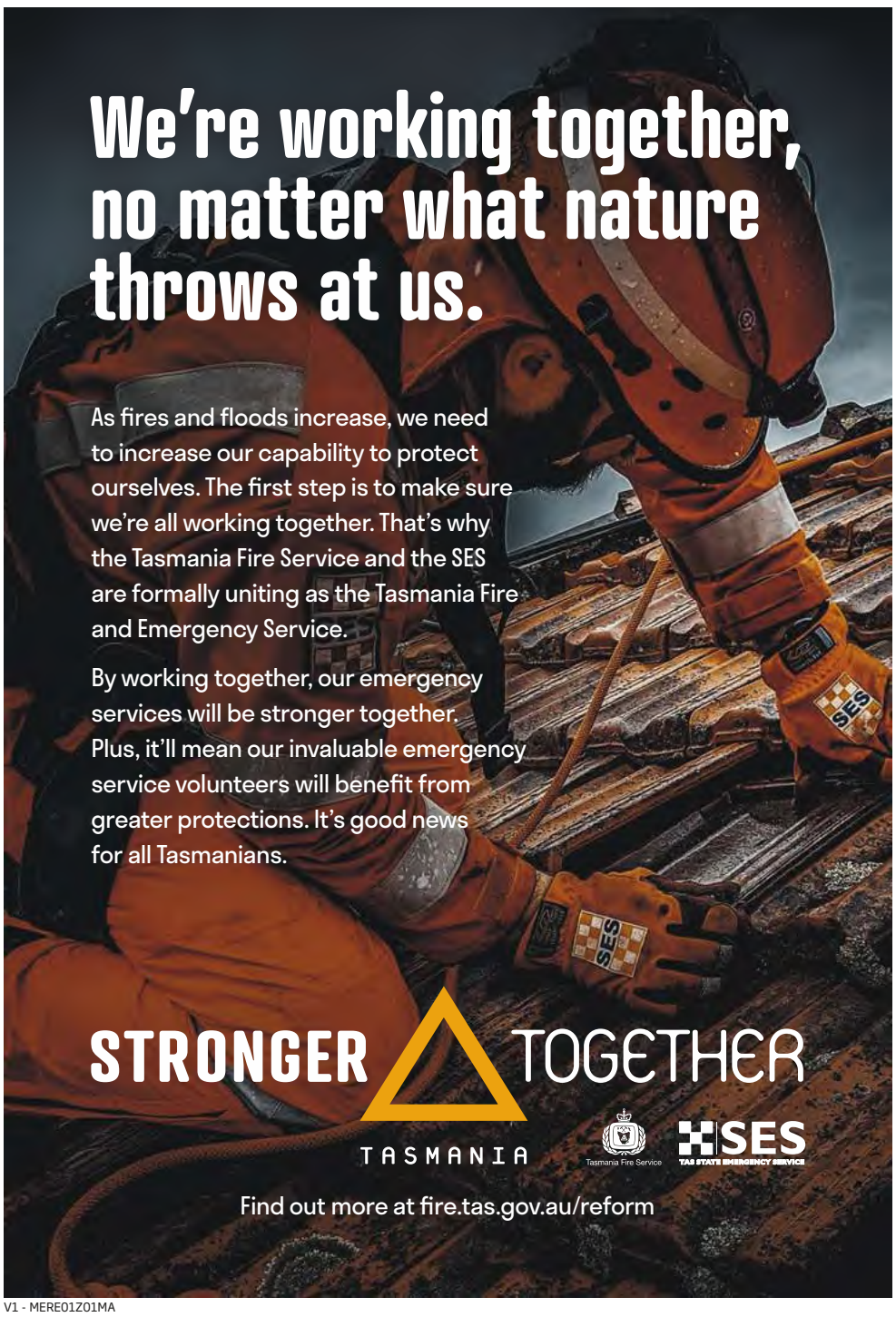
Asked whether it was acceptable for students to wait up to 30 minutes to use a toilet Mr Rockliff said: “There are challenges.

“We’ll work with the school communities to ensure that our young people are not experiencing delays in terms of accessing important amenities.”

He shared concerns about students vaping.

“I can understand parents’ and schools’ concern about vaping and I take that very seriously as well,” he said.

“We have got a program right across Tasmania of upgrading important amenities for our schools and that remains part of our focus of ensuring that we have 21st century infrastructure to support student learning.”



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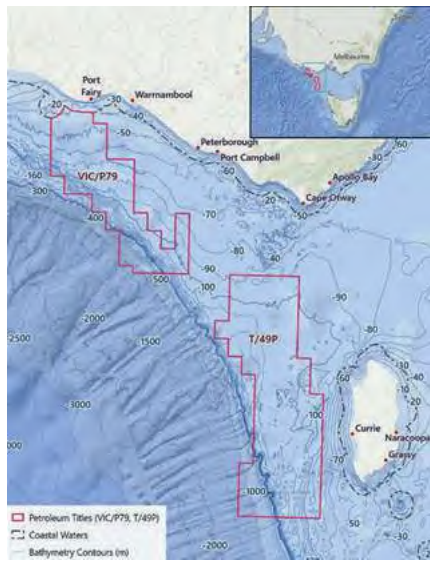
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FEEDING TUBE COMES WITH ADJUSTMENTS FOR FAMILY



Mum Miriam and Brock Van der Woude, 11, of Loxton, are raising awareness of the issues around tube feeding. Picture: Roy VanDerVegt

EVANGELINE POLYMENEAS

BROCK Van der Woude has had a feeding tube for seven years after he was diagnosed with a severe cold when he was three.

When he developed a respiratory syncytial virus, it led to an aversion to eating food orally.

Brock, who is autistic and non-verbal and must take lifesaving anti-epileptic medication, would refuse not only his food but his medication, too.

"It was a dangerous place to be in," Ms Van der Woude said. Now, with the feeding tube, Brock, 11, receives his nutrients and medication.

However, dietitian Andrea McCall said while tube feeding was beneficial, it could have a psychosocial impact on the family as feeding and parenting went hand-in-hand.

"Feeding our children, and the family sharing a meal together, is how we nurture and connect," she said.

For Brock being fitted with the tube caused "significant regression" and kindergarten "became difficult".

He eventually benefited from joining a peer support group through the Women's and Children's Hospital.

This week is Feeding Tube Awareness Week.

I could have been clearer

Medic's admission during death inquest

BRINLEY DUGGAN

THE pathologist who carried out a diagnostic report on a cancer-free man, who had part of his lung wrongly removed, conceded that her conclusion could have been clearer.

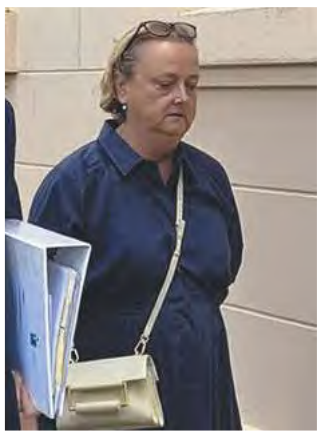
The admission came during the inquest into the death of 67-year-old Dennis Charles Jackson, from Broken Hill.

Mr Jackson died in 2019, from hospital-acquired pneumonia not long after he was misdiagnosed as having cancer and had part of his lung removed.

He spent several months in hospital, including 63 days in ICU.

In a sworn affidavit, pathologist Dr Caroline Lindsay Smith offered an alternate wording of her 2018 report in which her conclusion would have been more explicit.

"There was a fragment of carcinoma without surrounding tissues such that a distinction between invasive and in situ disease cannot be made," the revised report would have read. Instead, the conclusion produced in 2018 did not use the words "in situ" (not extending beyond the focus or level of origin). The the court previously heard if those words had been used, it could have resulted in a vastly different outcome. Dr Smith's alternate report would have also seen wording about the biopsy of Mr Jackson's lung changed to reflect ambiguities in a sample she had viewed.



Dr Caroline Lindsay Smith

That wording – to use "fragment" instead of "free-floating" – had previously come under scrutiny during the inquest.

On Wednesday, Dr Smith's 2018 report was subject to expert evidence which concluded it could have been written more clearly, which Dr Smith conceded on Friday.

She said there was "risk" in the way the report was written, which asked readers to "refer to the body" in which she wrote "(cancerous) invasion was not proved".

Dr Smith's report, however, was complicated by a 1.2mm piece of tissue on a microscopic slide that didn't belong to Mr Jackson. The piece of tissue, a contaminant from somebody else's body, present through no fault of Dr Smith, had made its way into a biopsy sample taken from Mr Jackson's lung during investigations into whether or not he had cancer.

With Mr Jackson's specimen alone on the slide, Dr Smith said, she would have concluded further testing may have needed to be undertaken.

V1 - ADVE01Z01MA

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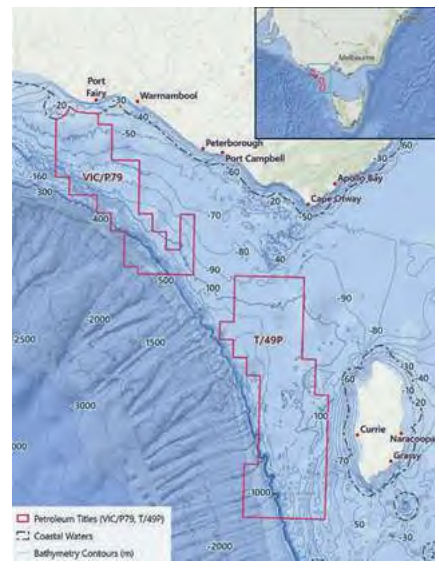
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Sushant paid $78,000 to start his dream home. The block is empty

Charlotte Grieve



Sushant and Anamica Chakravarty paid more than $78,000 to build a home but have been left with a vacant lot. Below: Terry and Andrea Conder's house was never finished. Photos: Simon Schluter, Joe Armao

Sushant and Anamica Chakravarty transferred more than $78,000 last year to build their dream home in Officer, an emerging suburb in Melbourne's south-east.

Ten years after arriving in Australia from India, the construction of this five-bedroom property was going to be a symbol of their family's success.

To construct the $1.5 million property, they chose Hallbury Homes, a small company branded as a luxury builder with an impressive display home in Langwarrin.

"I thought we'd picked the best," Sushant says.

But less than five weeks after the final payment was transferred, the company went into voluntary administration, leaving the Chakravartys with only a grassy block and no sense of what would come next.

The couple were one of at least 40 would-be home owners left "high and dry" when the company appointed administrators on January 5.

Corporate filings show the company owes $8 million to 401 creditors, including contractors and home owners around Melbourne who have been left with partially built properties, some riddled with defects including cracked walls, uneven surfaces and mould.

The collapse of Hallbury Homes highlights pressures in the construction industry, following crises at major firms ProBuild and Metricon, but it raises questions about the effectiveness of the Victorian Building Authority (VBA).

"I called up the VBA months ago and told them something was not right," says another home owner, Terry Conder, who has been working with Hallbury for six years. "They did an inspection, but then nothing. It's been a nightmare."

During a three-hour meeting on Thursday that became "heated", according to those in attendance, creditors voted to push the company into liquidation. Menzies Advisory principal Michael Caspaney will have greater powers to investigate a range of issues, including whether the company traded while insolvent.

"I've always had a problem with builders who are trying to do business beyond their means," Caspaney said. "The government of the day doesn't want to be seen to stifling builders, so there's very few financial checkpoints. Now the creditors have put it into liquidation, that gives me the full power to investigate."

According to corporate filings, Caspaney estimated that any claim for insolvent trading might be worth $6 million.

Hallbury director Glenn Smith denies these allegations. He says the investigation will clear him of wrongdoing. While he concedes problems were mounting for more than a year, he contends it was a change in a critical concrete contract that tipped the company over the edge after he and business partner Cliff Hall put everything into keeping the operation afloat, including borrowing from friends and family.



"With every building collapse, the directors are turned into villains," Smith says. "There's a lot of people with heat, making up crazy allegations that are frankly offensive."

With many of its building contracts fixed, Smith says his company was unable to keep up with the rising cost of materials.

"We ran out of money. We've put blood, sweat, everything [into it], and it just wasn't enough," he says.

For the home owners, the reasons for the collapse do not change the losses they are facing. Two of those home owners, Adam Van Haeften and his partner, signed a contract with Hallbury in February 2020 but soon noticed a high turnover of contractors and requiring payment for works before the couple were able to inspect the site. "At the end of the day, we feel they have short-changed us. They asked us to pay for work they hadn't completed."

Van Haeften hired building consultant Darbecca to examine whether the Balwyn North site complied with building standards. Its report listed "items that, in our judgment, do not reach an acceptable standard of quality, level of building practice or have not been built in a proper or workmanlike manner."

Van Haeften estimates it will now cost about $550,000 to complete the works, and his builders' insurance is set to expire within weeks, so the race is on.

As for the Chakravartys, they feel let down by the system that allowed this to happen.

"We have struggled to save this money for 10 years. We feel so cheated, it's really taking a toll on us," Sushant says.

"We never thought that in Australia, in a country where … [there are] regulators, this can happen. This has happened in this country."

Otway Exploration Drilling Program

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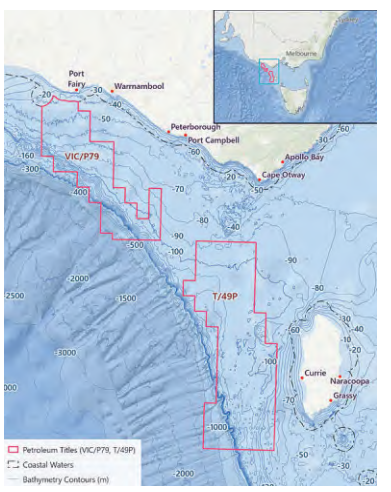
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NEWS

Earthquake hits close to home for family

WORLD NEWS

BY LILLIAN ALTMAN

Warrnambool

THE earthquake in Turkey has hit close to home for Turkish expat Kadir Zehir, with the deaths of several of his family members.

The Turkish town of Kahramanmaras was hit by a magnitude 7.8 earthquake on Monday, badly impacting parts of neighbouring Syria as well.

The death toll following the earthquake has risen to more than 20,000 people in both countries.

"If I wasn't working, I'd definitely go and help out," Mr Zehir, who now lives in Warrnambool with his wife Alison, said. "But, on the other hand, I watch all the channels on cable television and the government is saying we have enough help."



Some of Alison and Kadir Zehir's family in Turkey have survived the Kahramanmaras earthquake, while others have died. Picture by Eddie Guerrero

Mr Zehir said his second cousin, who he grew up with for about 15 years, lived in Kahramanmara.

He said his cousin's wife and 20-year-old daughter died in the earthquake but their son, who was in the same building at the time, survived.

Mr Zehir's uncle was also impacted by the earthquake.

"My uncle went to visit his son, daughter-in-law and grandson in Gaziantep in a high-rise building and they were on the 19th floor and all survived," he said.

"They are living in their cars and haven't been back in the house yet.

"I don't know what will happen, if they will go back to Ankara or not, I haven't heard from them."

Mr Zehir said his mother and brother lived in Ankara, 450 kilometres away from the epicentre of the earthquake.

They felt the aftershock just hours after the initial incident.

"Immediately I started to try and connect with them but because it destroyed the telecommunications towers and internet connection and all that, it took me two days to get some news from my family," he said.

Mr Zehir said he finally heard from others that one of his cousins who lived in the town of Hatay was fine two days after the quake.

"The rest of my family who live in Turkey were fine because they live hundreds of kilometres away in Ankara and Istanbul," he said.

Mr Zehir said so many people had been caught up in the earthquake with no chance to escape.

"The scary part is when you look at the aerial shot of the region, I'm thinking that the death toll will reach 60,000," he said.

Mr and Mrs Zehir were living in Turkey in 1999 when the most deadly earthquake at the time killed 17,500 people. The couple conduct tours and said they would be back supporting the country in May.

WORLD: P17

Man allegedly drives at a mum

LAW AND ORDER

Region

A MOYNE Shire district man is in custody after being charged with allegedly driving at a mother and son, causing the teen to take evasive action to avoid being injured.

A police spokesman said the 38-year-old man was arrested this week and charged with reckless conduct endangering life, reckless conduct endangering serious injury and driving in a manner dangerous.

He said on Monday the man attended his former partner's Warrnambool home after a heated phone call about 6pm.

It's alleged there was a verbal altercation before the accused man drove onto the front lawn and toward the front door at fast speed.

"That resulted in the 16-year-old son having to take evasive action to avoid being hit by that car," the spokesman said.

"The man kept yelling and then reversed and drove away."

The accused man appeared briefly in Warrnambool Magistrates Court on Wednesday, did not apply for bail and was remanded in custody. He was directed to appear in court again on February 27.

– JESSICA HOWARD

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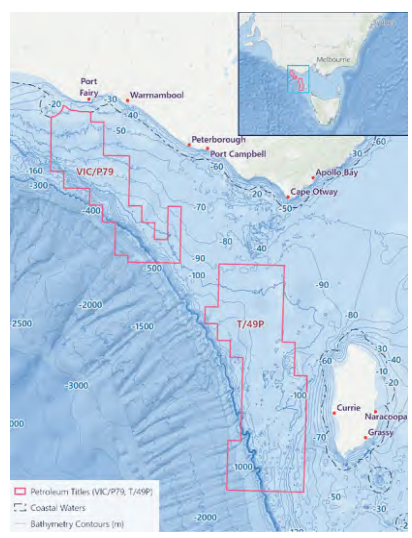
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RENEWABLE ENERGY

Joyce has swing at big wind

Nick O'Malley
National environment and climate editor

Doug Landfear, the Californian-born local boss of Danish renewable energy giant Vestas confesses he does not know exactly what federal Nationals MP Barnaby Joyce meant when he described the company's environmental impact statement for a NSW wind farm proposal as "nothing but a pack of poo-tickets", but he guessed it was not good, and says he is not entirely surprised.

"Barnaby has a certain way of speaking," Landfear says.

At issue is a plan to build a massive wind farm to the north and east of Walcha, a village of 3000 or so on the crossroads of Thunderbolts Way and the Oxley Highway in the NSW Northern Tablelands.

The project could have serious implications on whether the state – and the nation – might achieve the goal of shifting rapidly to renewable energy.

Walcha lies within the NSW government's New England Renewable Energy Zone.

In such zones, renewable energy projects will be supported and linked to the grid to replace ageing coal plants as they are decommissioned.

The policy is causing divisions in some communities where there are disagreements over whether the income generated by new renewables is worth the impact on the landscape.

And Vestas is offering the people of Walcha a staggering amount of money.

Should the so-called Winterbourne Wind project go ahead, about 55 landholders stand to earn about $30,000 a year per turbine hosted on their land. Some could have up to 10 turbines. Vesta is in negotiations with some neighbours who would be in sight of the towers for further payments.

Total investment in the region would be about $1 billion.

The towers would stand about 149 metres high at their hub and 230 metres at the tips of their blades.

In all, 119 towers would be built, making the project the largest in the nation, generating enough electricity to power 375,000 NSW homes.

The local council stands to benefit too, as Vestas is offering to pay $1 million up front and $750,000 a year, indexed to the CPI, for the life of the project.

Joyce's colourful line against the environmental impact statement provided by Vestas was made during a public meeting held by opponents of the project at Walcha's bowling club last month. He dismisses the payment.

"That wouldn't even pay for a roundabout," he told the *Herald*.

He said the community should oppose the wind turbines and that state and federal governments should co-operate to extend the life of the coal power stations until a new wave of nuclear energy technology, known as small modular reactors, is available.

Proponents of these machines say they will provide abundant clean and cheap power. Sceptics say they do not yet exist commercially and that nuclear power remains the most expensive source of energy on earth, while solar and wind are cheap and declining in cost.

The benefits of the Winterbourne scheme have convinced grazier Ted Fenwicke, whose family has farmed in the region for five generations.

He describes a reliable stream of income insulated from drought and flood as the "holy grail" that would help his family build and improve their core businesses. He rejects the argument of some of his neighbours that the turbines would spoil prime productive land, because, he says, the turbines would be built on rocky ridge-lines.

He believes the roads Vestas would build to install and maintain the turbines would be to his family's benefit as well. "If they can get a 100 tonne truck up there, it is going to be better than anything we can build," he says.

But he is aware of the tension the project is causing. His children, who will inherit the land, have embraced the project. His brother does so with far more reservation.

"The first time you look at a picture [of a turbine] you think, 'Wow, that's a pretty wild piece of equipment'," Fenwicke says. "But I'm sure people were pretty confronted the first time they saw a big powerline too."

By Landfear's count of the 948 public submissions made regarding the Winterbourne project, 498 are in support and 438 are opposed. Another 12 are simply comments.

Joyce remains unrepentant for opposing the project and the potential windfall for his community.

"We would end up with more man-made structures over 230 metres in height than Sydney CBD," he says.

Besides, he says, many of those who support projects like this live in the inner suburbs of Sydney and Melbourne.

"Well, if you support them, why don't you support building them in your area rather than in ours?" he says.

"This idea that we can just have wind towers built everywhere and that is going to be the solution is patently absurd."

His position puts him at odds not only with some of his constituents, but with his colleague, NSW Treasurer Matt Kean, whose policy on climate and energy depends on such development.

Asked if he was concerned about tension in Walcha, Kean said in a statement that renewable energy plans were expected to attract at least $32 billion in private investment and support more than 9100 jobs in regional NSW and provide $1.5 billion in lease payments to farmers.

"This is a once-in-a-generation opportunity to diversify local economies, create jobs and create new, stable revenue streams for farmers.

"Local communities will see a range of benefits from being part of a renewable energy zone. This includes a requirement for all developers to contribute up to $1700 per megawatt of their project to a new community benefit fund.



A Tasmanian wind farm; Walcha, in the northern tablelands; Barnaby Joyce. Photos: Alex Ellinghausen, Dallas Kilponen





$30K
Payment per year per turbine to hosting farmers.

$1m
Vestas to pay council up front, plus ongoing funding.

230 metres
The height of the wind turbines at the top of their blades.

Ancient rock art put forward for World Heritage status

Mike Foley, Peter Milne

A peninsula in north-west Western Australia has been nominated for World Heritage status by federal Environment Minister Tanya Plibersek in recognition of the estimated 1 million to 2 million sacred rock engravings there dating back 50,000 years.

If accepted by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the nomination would cover an area of 100,000 hectares on the Burrup Peninsula – or Murujuga to its traditional custodians – in WA's Pilbara region.

Murujuga would become the second of Australia's 20 World Heritage sites accepted for its First Nations cultural heritage, along with the Budj Bim cultural landscape and ancient aquaculture system in south-west Victoria.

The announcement was welcomed by the traditional custodians, although some reiterated warnings that emissions from nearby gas processing plants are damaging one of the world's longest unbroken sequences of rock carvings, or petroglyphs. They are demanding a contentious ban on further industrial development in the area, where gas giant Woodside plans a massive expansion to an existing gas plant.

The early engravings were made by removing a patina – a brown outer layer on the peninsula's rocks as thin as one-thousandth of a millimetre – to reveal the contrasting underlying orange colour.

Industrial emissions including nitrogen oxides and sulphur oxides make rainfall more acidic, and some traditional custodians say this will damage the patina and damage the engravings.

Plibersek said in Karratha yesterday that she was humbled to announce the nomination given the thousands of years of Indigenous care of Murujuga, adding that it was crucial to ensure the management and protection of the globally significant site.

"This has very obvious benefits for this landscape and the people who are so connected to the land, for future generations who will grow up strong on this land," she said. "But it also has real significance for the whole world … that's why we're here today."

Murujuga Aboriginal Corporation CEO Peter Jeffries said Ngarda-Ngarli traditional owners had aspired to World Heritage status for more than 20 years.

Otway Exploration Drilling Program

Consultation

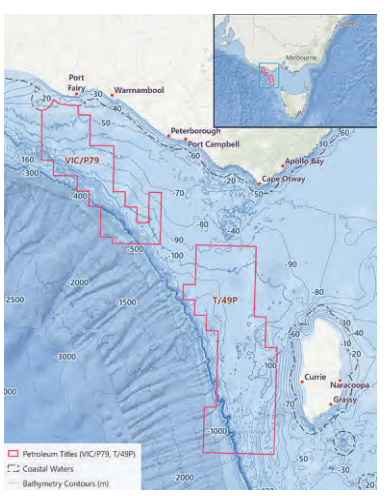
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Fire leads to drug haul

A GOOD samaritan was airlifted to hospital last week after attending a fire at a neighbouring property in Camperdown.

The fire at a Manifold Street property broke out at about 6.15pm on Tuesday.

A large amount of cannabis plants was located at the property, with police investigating the hydroponic set-up within the vacant house.

Warrnambool CIU detective acting sergeant Derek Verity said the house had been divided into three growing rooms and a drying room.

He said 70 to 80 cannabis plants were located at the property with an estimated value of $30,000 to $50,000.

Det. Act Sgt Verity said enquiries were ongoing into the operation.

"There will be multiple different enquiries," he said.

"It would take multiple people and skills to set it up.

"It is very unusual for this area."

The hydroponic set-up included a lights and watering system, with the offenders bypassing the electrical system to steal power.

District 6 commander Dan Condon commended the quick response of CFA units who attended the blaze.

"The crews responded brilliantly, they were on scene in minutes," he said.

"They extinguished the fire quickly.

"A good samaritan who lives next door has tried to help out and suffered a cardiac arrest. The crews did CPR on scene.

"They did an unbelievably good job putting the fire out and administering CPR."

Commander Condon said multiple units were called to the fire including Camperdown and Weerite.

"I can't sing the praises enough of the quick response of incident controller Andrew Smith and all of the crews," he said.

The man was transferred via road ambulance to the Camperdown Showgrounds before being transported to hospital via air ambulance.



Plants found: Warrnambool CIU members process more than 70 cannabis plants of varying sizes seized at a Camperdown property following a fire. 2023D

An Ambulance Victoria media spokesperson said Ambulance Victoria was called to a report of an incident in Camperdown just before 6.25pm.

"Paramedics treated a man in his 60s at the scene for a medical episode," the spokesperson said.

"He was flown by air ambulance to Geelong Hospital in a stable condition."

Camperdown Police Senior Sergeant Bill Caldow said police were at the property processing the scene last Wednesday.

"There is a very large number of cannabis plants of varying maturity," he said.

"The property was empty at the time."

Snr Sgt Caldow called on members of the public who might be suspicious of a property in their neighbourhood to make contact with police or CrimeStoppers.

He said all calls can be made anonymously by contacting CrimeStoppers on 1800 333 000.

Road safety questioned

VICTORIANS need safer roads now, according to Shadow Minister for Roads and Road Safety Danny O'Brien.

He said the state had seen a horror start to 2023, with 42 lives lost on Victorian roads to date.

Mr O'Brien said there was no easy solution to road safety.

He said a parliamentary road safety committee could play a big role in providing solutions to drive the road toll down, yet the Andrews Labor Government voted down the motion in Parliament.

Mr O'Brien said in the past the committee had made Victoria a leader in road safety.

"This committee was responsible for inquiries from its very inception in 1967 that resulted in Victoria's then world-leading road safety initiatives," he said.

"These initiatives were associated with significant reductions in injury and fatality on Victorian roads, including the introduction of mandatory seatbelt wearing, the demerit point system, random breath testing, the list goes on.

"It is disappointing that Labor, having axed the committee in 2015, has refused to bring it back and keep Victoria at the cutting edge of life-saving technology and initiatives."

Mr O'Brien said the decision comes at a time when Victorians faced some of the "most unsafe road conditions".

"Rural and regional Victorians especially know the state of our roads is abysmal," he said.

"Long-term investment means safer roads, but it's also about driving down the road toll with intervention initiatives and research into the latest technology.

"This disregard for a committee that has driven so much change over decades leaves Victorian motorists at a disadvantage."

Minister for Road and Road Safety Melissa Horne was contacted for comment but failed to respond before publication.

Otway Exploration Drilling Program

Consultation

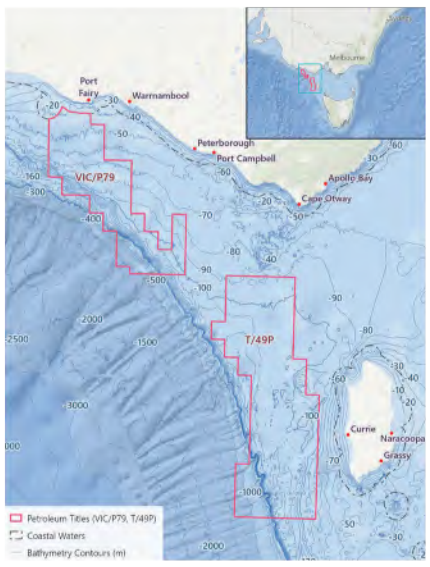
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Hepatitis NSW

Program Officer – Aboriginal Community Engagement
Hepatitis NSW

35 hours per week

SCHADS Award Level 4 plus superannuation and annual leave loading.

Full salary packaging is available

As Program Officer – Aboriginal Community Engagement you will:

- Lead, plan, deliver, and develop hepatitis B and C outreach health promotion activities that engage Aboriginal communities across NSW.
- Contribute to activities that improve the health and wellbeing of Aboriginal people living with or at risk of hepatitis B and C in NSW.
- Contribute to reducing stigma and discrimination experienced by Aboriginal people in relation to living with hepatitis B and C.
- Build strong relationships and partnerships with key stakeholders to increase access to health services for Aboriginal people.

This is an Aboriginal identified position and is open to Aboriginal and/or Torres Strait Islander people only. Hepatitis NSW considers that being Aboriginal or Torres Strait Islander is a genuine occupational qualification under s 14 of the Anti-Discrimination Act 1977 (NSW).

Hepatitis NSW is a member-based, health promotion charity funded by the NSW Ministry of Health. There are 17 permanent staff members and 35 casual staff and volunteer workers.

Our vision is "A World Free of Viral Hepatitis". We provide information, support, referral, and advocacy for people affected by viral hepatitis in NSW. We work to prevent the transmission of hepatitis B and hepatitis C and to improve the health and well-being of affected people and communities.

Our offices are in Surry Hills, Sydney, co-located with like-minded organisations and are wheelchair accessible. Learn more about us and what we do on our website: hep.org.au

A job pack containing full job description, selection criteria and terms and conditions of

employment must be obtained before applying.

Download Job Pack visit https://bit.ly/hnsw-ace

Applications close: Wednesday 8th March 2023

Legal Aid NEW SOUTH WALES

Legal Support Officers Clerk Grade 1/2
Temporary and Talent Pool

- Package up to $82,399 pa, including super & leave loading
- Broken Hill
- Temporary full-time role up to November 2024

We are looking for an enthusiastic and organised team player to work as a Legal Support Officer in our Broken Hill Office. The role requires you to help clients, via phone/email and face to face. Previous customer service and administration skills will be desirable and enable you to help people find what they need. A talent pool may also be created for future ongoing and temporary vacancies.

Aboriginal and Torres Strait Islander people are strongly encouraged to apply. We also welcome applications from anyone who is interested in the role.

Apply Online: iworkfor.nsw.gov.au
Jobs NSW Ref. No. 00009F6A
Closing Date: Sunday 5 March 2023 11:59pm
Enquiries: Hiring Manager
Melissa Lay on (02) 6885 2433 or
email: melissa.lay@legalaid.nsw.gov.au

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Artwork: © Luke Penrith

Lifeline
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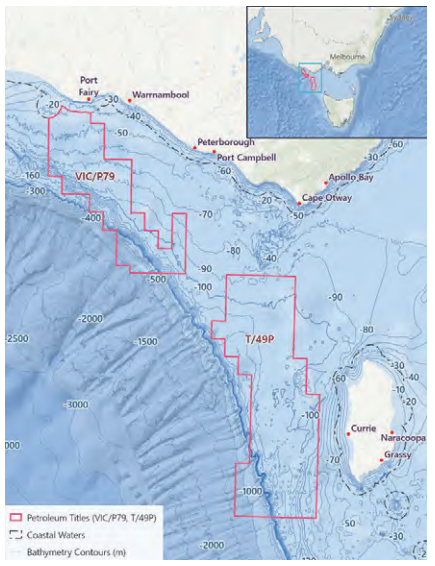
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CMM29338OTW

Notice of intention to consult with and seek the consent of Yirendali common law holders to enter into a Community Benefits Agreement

North Queensland Renewable Energy Zone Pty Ltd (**NQREZ**) and the Yirendali Aboriginal Corporation (ICN: 8398) (**Yirendali AC**) are proposing to enter into a Community Benefits Agreement (the **Agreement**) in relation to the proposed Mount James Wind Farm, located 80km north of Hughenden (the **Project**) as shown on the map below.

Under the proposed Agreement, in return for the benefits provided by NQREZ, Yirendali AC acknowledge:

1. that the parties consulted and cooperated in good faith and obtained the free, prior and informed consent of the Yirendali people in relation to the Project; and
2. that any public entity's decision to grant a Project Right will be a decision that is not incompatible with the Yirendali People's Cultural Rights.

Yirendali Consultation

The Yirendali AC seek to consult with and seek the consent of the Yirendali People to enter into the Agreement.

The members of the **Yirendali People** are described as descendants of the following apical ancestors:

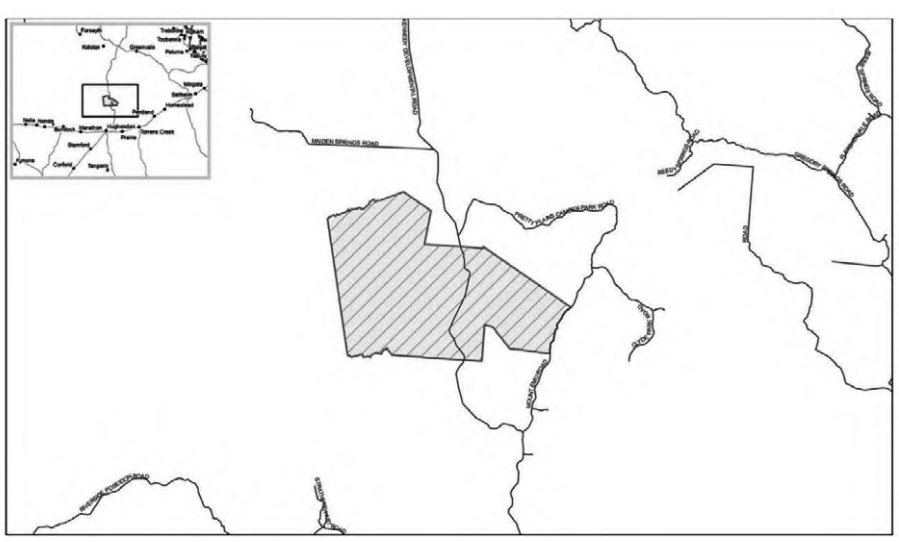
(a) Albert Hill;
(b) Henry Major Luco;
(c) Phillip and Ida Lammermoor;
(d) Polly and Kiara (Kyra) (Kara) Christison; or
(e) Maggie Chermside.

These persons are invited to attend the meeting as set out below:

Friday, 17 March 2023 10:00AM Mercure Inn Townsville
166 – 194 Woolcock Street, Townsville QLD 4812

Videoconference facilities will be available for those unable to attend in person. Please contact yirendaliac@gmail.com for further details.

There will be no travel assistance offered however light refreshments will be provided at the meeting.



Progress update on the decommissioning of Esso's Bass Strait offshore facilities

As operator of some of Australia's oldest oil and gas fields, Esso Australia is committed to decommissioning our Bass Strait offshore facilities safely and effectively.

We have substantial experience in safely and effectively decommissioning facilities to achieve positive outcomes across the globe, and we are excited to be part of Australia's growing decommissioning industry.

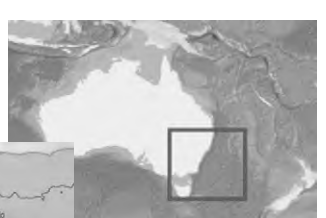
For our steel piled jackets, we have identified a number of decommissioning options and assessed each one in order to determine which approach balances the needs of other users of the sea by ensuring the safety of navigation and delivers an equal or better environmental outcome by retaining the marine ecosystems which have developed around the jackets.

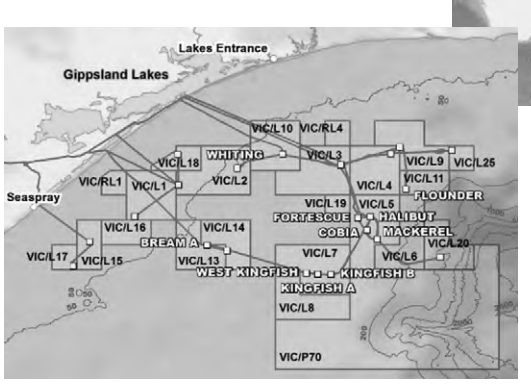
All of the options for decommissioning the steel piled jackets include full removal of the upper sections of the platform including the accommodation and processing facilities, known as the topsides for disposal onshore. The overall demand for a skilled workforce to support the decommissioning program will vary minimally regardless of which option is pursued for the cut off depth of the steel piled jackets.

More information on these options and how we are assessing them are available here: https://exxonmobil.co/3R6U8E8.

Prior to commencing and throughout our decommissioning activities, we continue to identify and actively engage with key stakeholders across the Gippsland region. We have also undertaken a national public consultation process facilitated by the National Offshore Petroleum Safety and Environment Agency. This and our ongoing consultation play an essential role in how we align our approach and ensure the essential work that we are undertaking meets the community's needs and expectations.

If you would like to learn more about our decommissioning process and the approach we are considering for the removal of steel pile jackets and platform topsides, or feel that you are a relevant person as per the Offshore Petroleum and Greenhouse Gas Storage Act 2006, we welcome you to reach out via consultation@exxonmobil.com.





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NEWS

Councillor to make appeal

BY **SHERYL LOWE**

Continued from front

Later in the day he confirmed a councillor with the Naracoorte Lucindale Council had been stood down.

Cr McGuire said he made several attempts to lodge his campaign returns prior to the election in November 2022, with no success. After his third attempt he was blocked from the ECSA portal, he sought the assistance of council staff in November 2022, who sat with him in Chambers to try to assist him lodging the forms.

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On January 27 2023, Cr McGuire received a call from ECSA relating to the issue and he repeated his story to them.

"They (ECSA) agreed to post me a hard copy of the form, which I completed and returned to ECSA. The form didn't have a deadline on it."

"I am disappointed in the system and will appeal the decision. I have good grounds for my appeal and believe I will be successful."

Cr McGuire was re-elected to the Naracoorte Lucindale Council in the November 2022 elections after a long career in local government including eight years as Deputy Mayor.

This is the latest issue in a chaotic start to the new four-year term of local government. Several councils began the term without a mayor and some without a full council. Changes in legislation in local government elections have been blamed.

Councils affected, bore the brunt of the cost of a supplementary election.



High winds and hot days: CFS callouts



Hynam grassfire aftermath after being attended to by volunteers and air support. Picture by Neave Moore

A GRASSFIRE was alerted by Country Fire Service operatives in Hynam around 3:30pm on Friday February 10.

CFS responders from Naracoorte, Kybybolite, Hynam, the Wattle Range, Cadgee, Joanna, Lucindale, Stewarts Range, Frances, Comaum, Maaoupe, Penola and Coonawarra responded to the original call out.

There was a concern given a high wind speed in the area, but the fire was taken under control by Friday evening.

An aircrew was dispatched to assist ground volunteers with putting out the blaze, and the intersection off Biggins Road, west of the Naracoorte Teys facilities was closed off, with an alert put out to limit drivers in the west Hynam area.

The fire was able to jump across Biggins Road but was taken under control by the present firefighters, with the Threat Reduced alert first put out at 6:48pm that evening.

Naracoorte Grassfire

Naracoorte CFS volunteers were called to a Level 1 fire at the Train Yard in town, near Lot 31 on Cameron St.

The alarm was pulled at 3:20pm on Monday February 13, and locals were urged to keep away as volunteers took control of the scene.

Binnum Grassfire

Lower Tatiara, crossborder and Naracoorte CFS volunteers were called to a grassfire off Tarcas Road in Binnum.

Originally alerted at 3:20pm as a Level 3 incident, the fire was soon upgraded to a Level 4, but aircraft responders were released from the incident at 3:27pm.

The CFS issued a notice to residents reminding those in fire danger areas to revise their evacuation plan and make sure they are on top of the alerts as winds speeds pick up this summer.

– NEAVE MOORE

Naracoorte Lucindale Council
Better by Nature
Tatiara
the good country
KINGSTON DISTRICT COUNCIL

The Northern Limestone Coast Regional Assessment Panel wishes to advise that the following applicants have been appointed as panel members:

- Mayor Jeff Pope (Panel Member)
- Mr Mark Teakle (Panel Member)

These appointments have been made on behalf of the Naracoorte Lucindale, Tatiara and Kingston Councils.

VR4806989

Otway Exploration Drilling Program
Consultation

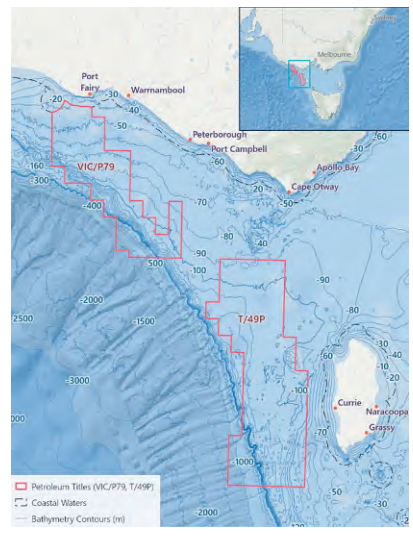
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VR4806254

Action on prominent corner site

WORK has begun on the site of a new service station just north of Heywood, at the corner of the Princes and Henty Hwys.

As previously reported in the *Observer* the proposed $1.5 million service station is being developed by the Werribee-based Dislis Group, which got approval in 2020 from Glenelg Shire Council to build one of its Pegasus Pitstop branded stations at the site.

The servo would be open round-the-clock and feature a diner and convenience store, with fuel and lubricants supplied through Mobil.



Picture: KAREN HODGE 230405kh07

MAGISTRATES' COURT

Accident turns up drink driving charge

A HEYWOOD man has lost his licence, after bloodwork done in hospital after a crash came back positive for alcohol.

Barry Morton was driving down the Henty Hwy on his way home from the pub on January 11 last year when he missed a bend and collided with an embankment on the side of the road.

Damage from the crash trapped the 66-year-old and his passenger in the car, both with significant injuries.

Emergency services rescued them from the wreck, and took them to hospital in Hamilton, where a blood sample was taken from Morton, later retuning a result of 0.086 alcohol content.

In court, Morton's lawyer said he had had a seizure as a side effect to medication just prior to getting in the car, and should not have been driving.

Magistrate Franz Holzer suspended Morton's licence for six months.

Truck's log load too wide

A TRUCK driver has been fined, after being caught last year driving with a 68-ton load of logs that was wider than legally allowed.

Jason Berger, who now lives in Melbourne, appeared in the Portland Magistrates' Court on Tuesday last week to plead guilty to the single charge of failing to comply with dimension requirements for a heavy vehicle.

The charge carries a maximum penalty of $11,820.

Berger, who was living locally at the time, was driving a fully loaded prime mover truck on Woolsthorpe-Heywood Rd on December 28 when he was stopped for an inspection.

In court, the National Heavy Vehicle Regulator prosecutor Iain McDonald alleged that Berger's load was 0.28 metres wider than the 2.5m maximum allowed width.

Mr McDonald said the logs that Berger was carrying were also longer than allowed, which was dealt with by an on-the-spot fine.

Overall, the prosecutor said the overload presented a "severe risk".

In court, Mr Berger said that he had been present when the truck was loaded, and as the driver took responsibility for the breach of requirements.

Magistrate Franz Holzer fined Berger $1000.

Text threats frighten woman

A PORTLAND man has been placed on a community corrections order, for sending threatening texts to a former partner and abusing her daughter.

The man pleaded guilty to breaching a family violence safety notice and using a carriage service to harass in the Portland Magistrates' Court on Tuesday last week, and cannot be named as it might identify a victim of family violence.

The notice was taken out by police against the 51-year-old in March last year, naming both his partner and her daughter as protected people.

Late last year the man had been living in a caravan in the victims' driveway, and the prosecutor told the court that on December 27 at around 9pm, the man was drunk and became verbally abusive and aggressive to the younger woman.

Police were called and removed the man from the property, and later that night he sent texts to one of the victims telling her that she was dead.

The texts were reported to police, the victim telling them that she had been unable to sleep from fear.

The man was arrested the following day, making partial admissions when interviewed but said he did not have a clear memory of sending the texts.

In court, the man admitted to previously having issues with alcohol and being a daily drinker but had now been off the drink for a week and was "feeling good about it."

Magistrate Franz Holzer described the offending as demeaning, but said "on first blush" the man did not seem to be a high risk of re-offending and sent him for a community corrections assessment.

The report that came to court was a contrast to this, describing the man as "high risk" for reoffending, but still suitable to serve his penalty outside of prison.

Mr Holzer sentenced him to an 18-month community corrections order with drug, alcohol and medical treatment recommendations to be complied with, as well as judicial monitoring throughout.

Corrections order for assorted crimes

A MAN has been placed on a 12-month community corrections order with 75 hours of community work attached , for a number of criminal offences, dating back as far as 2018.

The 51-year-old from Portland pleaded guilty in the Portland Magistrates' Court on Tuesday last week, to contravening a family violence order, unlawful assault, unlicenced driving and cultivating cannabis.

He cannot be named as it might identify a victim of family violence.

Christmas Eve fence carnage

A PORTLAND man last week faced the Portland Magistrates' Court after losing control of his car and destroying a front fence.

John Knalfec pleaded guilty to careless driving and failing to properly have control of his vehicle for the incident dating back to December 24 last year.

The prosecution alleged that witnesses heard Knalfec "hooning" near the corner of Wellington Rd and Edgar St in Portland immediately before the crash.

At around 7.45pm, the 32-year-old lost control of his car as he was headed north on Wellington Rd just near the intersection, and collided with a brick fence on Edgar St, before hitting the median strip, mounting the footpath and then ploughing through eight metres of paling fence.

In total, police say he travelled 45 metres out of control, and was helped out of his car by witnesses.

Police attended and Knalfec admitted to being the driver and walked through the crash with them, but said he did not think he had been going too quickly.

As well as paying for the repair work for the fences, Knalfec was placed on a 12-month good behaviour bond and ordered to take safe driving and road trauma programs.

ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and will be hosting a community information session next week.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Tuesday 18 April 2023
Location: Scan the QR code for venue details
Time: Portland 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

CMM29521CP



SHOWCASE: Co-ordinator Lynne Richardson said she was excited for all the Colac Otway Arts Trail events around the region after hearing great feedback from the first weekend of events during Easter.

Artists plan big weekend across Colac

BY NAOMI NEWCOMBE

Art is taking over Colac this weekend with the Colac Otway Arts Trail focusing in on Colac and its artists.

Artists will display more than 300 pieces of art at the Colac Primary School stadium for Colac's art showcase and exhibition tomorrow and Sunday.

Fifteen artists will showcase their artistic talents throughout the weekend with textiles, sculpture, painting, drawing, glass blowing and quilting demonstrations.

There will be coffee and food available at the primary school, a special performance by WildHoney Performing Arts for the kids at 2pm on Sunday and music performances, weather permitting.

Co-ordinator Lynne Richardson said the showcase and exhibition was looking great already and she was excited for all the events around the region.

"We'll also have the announcement of the awards at around 2pm on Sunday as well," she said.

Awards include best in show, judged categories for painting, photography, 3D work and mixed media, as well as people's choice.

Just a short walk from the art showcase and exhibition at the Colac Primary School is the Hidden Small Art Treasures interactive exhibition at the Colac Botanic Gardens.

"Get down there and see those before all the artwork is gone – they're beautiful down there," Lynne said.

"We've had lots of reports of families enjoying it – when the weather has been fine – and finding the treasures with their little ones.

"It's been a lovely family event."

The Colac Woodcrafters Guild will be open the whole weekend at the Colac Showgrounds as well as the new Colac Makers Space annexe with a family painting workshop.

There will be exhibitions in Colac at the Murray Street Market, COPACC, the Colac Makers' Space and Studio 92.

Colac Primary School, St Mary's Primary School, South West Primary School and Colac West Primary School also have art displays on their fences for people to discover as they make their way around Colac and the different events.

Lynne said she had already heard great feedback about the first weekend of events for the Colac Otway Arts Trail.

"The rain was a little bit of a deterrent maybe but apart from that lots of good feedback, Birregurra had theirs on with the market and they had lots of visitors and sales," she said.

"The Paper Cloth on the Hills Hoist, the open air one, was great and the paper deteriorated in the weather which was lovely to watch because that was what it was designed to do."

Tomorrow is the final day for art lovers to visit the Apollo Bay Art Show and see artwork from coastal and Otways artists.

The Gellibrand gallery, Alda Hubbard's studio at Gellibrand, The Project Space in Apollo Bay and Ziibo will also be open this weekend.

Check out the Colac Otway Arts Trail website and Facebook for more information about all the events happening across the region.



SCULPTOR: Artist Clive Murray-White will demonstrate his marble sculpting at the arts showcase and exhibition at the Colac Primary School stadium this weekend as part of the Colac Otway Arts Trail

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Date: Thursday 20 April 2023

Location: Scan the QR code for venue details

Time: Apollo Bay 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com

T: 07 3182 7122

conocophillips.com.au

CMM29522CP

Environment conserved at sanctuary


PHOTO SUPPLIED

WILDLIFE REFUGE: Apollo Bay P-12 College learning about the values of the Henriksen Sanctuary.

Apollo Bay students have had a first-hand look at the importance of habitat conservation.

The Trust for Nature hosted 11 Year Seven and Eight students from Apollo Bay P-12 College to view restoration work and a new trail at the Trust's Henriksen Sanctuary Reserve, near Marriners Lookout.

The Trust for Nature has used funding from the Federal Government's Wild Otways Initiative to create a small access track within Henriksen Sanctuary and to control weeds within the sanctuary and along Marriners Lookout track.

The secondary school students learnt about land conservation, ecological significance, ecosystem services, weeds and weed management, and discussed weed-management alternatives to chemical control, like using trained weed-eating goats.

Trust for Nature's Corangamite regional manager Jo Day said that controlling large infestations of weeds in the sanctuary helped to protect the intact high-quality areas from degradation.

"We hope local community will visit the Sanctuary, connect with nature, and hopefully begin to form a sense of custodianship," Ms Day said.

"By investing in weed control along Marriners Lookout track, we are fostering the visitor's appreciation of native habitat," she said.

Corangamite Catchment Management Authority chief John Riddiford said Henriksen Sanctuary was a refuge for endangered species like the rufous bristlebird and black Otway snail.

"Engaging and educating school students on this project is wonderful to see, who better to take care of our environment than the next generation of environmental stewards," Mr Riddiford said.

Side-swipe driver enters guilty plea

BY NAOMI NEWCOMBE

A South Australian man must be on his best behaviour for the next year after failing to stop after side-swiping a car on the Princes Highway.

The 65-year-old man pleaded guilty in Colac Magistrates Court this week.

The court heard the victim was driving on Birregurra-Warncoort Road towards Colac on October 15.

The victim merged onto the Princes Highway at 90kmh and saw the accused driving up behind him.

The accused attempted to overtake the man and side-swiped the victim's car.

The accused stopped in the left-hand lane of the highway and the victim overtook the accused.

The accused then hit the victim's car again before overtaking him in the emergency stopping lane.

The victim continued driving into the Colac CBD while calling police and turning right into Queen Street, before stopping out the front of the Colac Police Station.

The accused followed the victim into Queen Street, parking on the opposite side of the road, before driving off via Pollack Street.

The court heard police intercepted the man at 9am on October 15 and interviewed him about the incident.

The man told officers that the victim put on his brakes and that was why he side-swiped the car.

He said he didn't realise he had to provide his details to the victim, and the incident didn't warrant stopping.

The total cost of the damage to the victim's car was $6049.92, which the offender paid before attending court.

The man told the court that the incident happened during the Victorian floods last year and he had been driving all night trying to get back to South Australia.

Magistrate Michelle Hodgson imposed a 12-month good behaviour bond, with the condition that he continues his bipolar treatment.

"Can you stay out of trouble for 12 months?" Ms Hodgson asked the man.

"You only get once chance for a non-conviction."

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Time: 6-8pm

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CMM29716CP

There are many ways you can give us a hand.

Your local CFA Brigade needs you, and there are many ways you can help. Roles include daytime firefighters, community educators, and support roles. You don't need experience, and you'll be amazed at what you will achieve, while fulfilling a vital and rewarding role in your community.

Scan the QR code to find out how you can help.

CFA





Vivian Capiznon and South West TAFE course advisor Jo Healey

Eye-opening day at TAFE

Course information and career advice was on offer at Colac's South West TAFE campus's open day this week.

The campus hosted information sessions about its mid-year courses, with the TAFE's agriculture course specialist chatting with attendees and course advice available from the skills and job centre.



South West TAFE Colac Otway regional manager Naomi Harris

Brother fined for breach of court order

A magistrate has told a 56-year-old man his attitude must change after persistently breaching intervention orders.

The man pleaded guilty in Colac Magistrates Court to charges of breaching an intervention order.

The intervention order began on October 24, preventing the man from going to or remaining within 50 metres of his sister.

The court heard that on November 8 the man parked his vehicle outside his sister's house and stood in her yard yelling that he was there to collect his trailer.

The sister told the man he shouldn't be there and called triple zero, as the man left.

Police arrived and spoke with the sister about what happened and where the man lived, before attending the man's house the next day to interview him.

He told officers that his sister had told him to come pick his stuff up.

The court heard of another incident on October 20 at 8.20pm when the accused and the victim were at the Colac Woolworths and an argument started in the car park.

The woman attended the Colac Police Station to report what had happened.

Police interviewed the man at the police station where he admitted to arguing in the carpark.

The man had previously persistently breached intervention orders in relation to the victim dating back to 2020.

The man's lawyer said the man had been at the pub before the Woolworths incident and his sister had come over to him and pulled him off his chair.

When the man left the pub to go to the Woolworths, he said his sister followed him.

"You contact her when you want to, in disregard of the orders," Magistrate Michelle Hodgson told the man.

Ms Hodgson said the incident was very serious and that she could impose up to two years in prison for each of the breaches.

"You haven't articulated remorse and continue to blame the victim in these matters," she said.

She sentenced the man to a 12-month community correction order with supervision and to engage in an alcohol treatment program.

Ms Hodgson also imposed a $500 fine.

If you are affected by this story and want to seek assistance, contact 1800RESPECT or 1800 737 732, the national sexual assault, domestic and family violence counselling service for people living in Australia.

Drink driver risks job

A split-second decision to skull his friend's drink has cost a 27-year-old man $555, his licence, and possibly his job.

The man pleaded guilty to a drink driving charge in Colac Magistrates Court this week.

The court heard police observed a black Toyota driving along Costin Street at Apollo Bay at 10.50pm on August 13.

The man presented his licence to police and underwent a preliminary breath test, with officers determining alcohol was present.

The man accompanied officers to the Apollo Bay Police Station for a second test at 11.10pm.

The man registered a blood alcohol reading of 0.077.

Officers issued an infringement notice, but the man objected and opted to face the charge in court.

When police asked why he was driving while over the legal limit, he said, "no good reason".

The man told the court he had been at an event and was the designated driver for his group of friends.

He said when exiting the venue, he made the "split-second decision" to take his friend's drink and drink it because they weren't allowed to take the glass outside.

The man said he worked in construction and would lose his job if he was unable to drive.

He said he was a law-abiding citizen, didn't usually drink and didn't think he would be over the legal limit.

"The legal limit is 0.05 for a very good reason," Magistrate Michelle Hodgson said.

Magistrate Hodgson imposed a six-month loss of licence and a $555 fine without conviction.

"You need to be careful you don't get behind the wheel in the next six months," she told the man.

Prison time for breach

A former Colac man will spend three months in prison after breaching his community correction order.

The man faced Geelong Magistrates Court this week on a charge of breaching a community correction order.

The court heard the man breached the order by further offending.

The *Colac Herald* understands that the further offending relates to multiple charges of theft and burglary.

The man appeared via video link from custody for indictable matters set to head to court in July.

Corrections recommended the community correction order be cancelled and for the accused to be resentenced.

The man's lawyer and Magistrate Ann McGarvie agreed.

The man's lawyer said a period of imprisonment was the only appropriate outcome.

Magistrate McGarvie said the man completed some of the community correction order work in residential rehabilitation but didn't seem to have done anything else.

She convicted the man and sentenced him to three months in prison, taking into account 29 days served as pre-sentence detention.

He also received a $300 fine.

ConocoPhillips

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CMM29716CP



OUT AND ABOUT: Apollo Bay kinder's Alinta Sabbo, Aditya Darmawan and Avery Collier walked to the library to share story time and sing songs with Leon Cox.



IMPORTANT MESSAGE: Apollo Bay kinder pupils Mason Collier, Charlotte Heng and Molly Evans are learning the importance of road safety by hitting the streets at the coastal town.

Safety lessons for kinder kids

BY ALEX BAIRD

Apollo Bay kinder kids have been out in force pounding the pavement learning the importance of road safety.

Apollo Bay Kindergarten teacher Eliza Lee said the early learning centre had organised a range of activities to teach children about safety measures and things to remember when out and about.

They even had a visit from local police officer Margaret Anderson to share her knowledge on the issue.

"We have had Senior Constable Margaret come to talk about road safety and walked around town to participate in road safety," Ms Lee said.

"We're planning a bike and scooter day to wear helmet and trying to organise a bus trip to Wildlife Wonders to wear a seatbelt."

Pupils this week braved the cold weather and walked to the Apollo Bay library for a visit.

It's part of a grant Apollo Bay Kinder earned from Early Learning Association Australia on behalf of the Transport Accident Commission for road safety education for early childhood.

Ms Lee said they had a host of topics to cover, including physical safety, traffic awareness, developing good habits and safety as passengers.

Bicycle and scooter safety was also a key focus beyond pedestrian skills.

"Educating kinder children about road safety instils in them an understanding of traffic rules, signals, and signs," Ms Lee said.

"This awareness helps them become more cautious pedestrians and develop essential skills for navigating the road safely as they grow older.

"Introducing road safety habits at an early age lays the foundation for responsible behaviour."

Ms Lee said the program was also a timely reminder for adults to be good role models for children behind the wheel and when using footpaths and crossing roads.

"Kinder children tend to imitate adults and older peers," she said.

"By setting a good example and following road safety practices ourselves, we encourage them to do the same.

"Being responsible road users ourselves contributes to their understanding and adoption of safe behaviours."

Quarterly surveys

BY LIAM MCCULLAGH

Corangamite Shire Council will check in with its residents more often, by moving to quarterly satisfaction surveys.

The council has confirmed changes to the process of measuring residents' satisfaction levels.

The council previously surveyed 400 people once a year but will now have quarterly surveys of 100 people each.

The four survey periods are June 1 to July 2, August 17 to September 17, November 1 to December 3, and February to March 2024.

Mayor Ruth Gstrein said National Field Services would randomly select residents for the community satisfaction survey.

"The survey has been designed to assess council's performance across a range of measures.

"Residents' opinions about council will be gathered, then compared against performances in previous years. The responses will identify ways we can improve our service to our community.

"We appreciate participants taking the time to help us with their valuable feedback," she said.

Cr Gstrein said that all personal information shared by residents would remain private.

"Only the overall results are shared with council.

"This is a very important piece of work that is done every year and lets us know what we're getting right and where we need to improve," she said.

To show legitimacy, researchers will identify as National Field Services, never ask people by their name and state how long they expect the survey to take.

No calls will come from a mobile number.

Park track closures

More than 40 tracks in the Great Otway National Park will close on Thursday for the rest of winter and part of spring.

Parks Victoria has released the list of track closures across the state for winter.

The closures aim to protect tracks from damage. Local conditions and weather can affect the timing and locations of these seasonal road closures.

Closures in the Great Otway National park start on June 15 and end in November.

The region's tracks to close for winter are: Big Hill Track, Bird Track, Boggy Creek Track, Brown Town Track, Bunker Hill Track, Coalmine Track, Coopers No 2 Road, Curtis Track, Delaneys Track, Denham Track, Dunse Track, Five Mile Track, Garvey Track, Gentle Annie Track, Godfrey Track, Grey River Road, H P Track, Halls Ridge Road, Jamieson Track, Junction Track, Kennett Road, Kennett-Wye Jeep Track, King Creek No 2 Track, King Creek No 3 Track, King Track, Link Track, Loves Track, Moggs Creek Track, Mt Cowley Track, Newcombe Spur Track, Old Carlisle Track, Peppermint Parade, Rapier Ridge Track, Sharps Road, Sheepyard Track, Skinners Creek Track, Thompsons Track, Unnamed, Upper Sheepyard Track, Whites Track, and Youngs Creek Track.

Meanwhile, Locks Road in the Port Campbell National Park will also close from June 15 to November 2.

Conservation Regulator officers regularly patrol over the winter months and will hand out penalties to anyone ignoring the closures, and the public can illegal vehicle use and gate breaches on public land to 136 186.

Visit www.parks.vic.gov.au/get-into-nature/safety-in-nature/seasonal-road-closures for information on road closures in national parks.

ConocoPhillips

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Four years' jail for sex offence

A Colac man will spend more than four years in prison for trading drugs for sex with a 15-year-old girl.

The man faced County Court on Friday for sentencing of charges of trafficking a drug of dependence to a child, sexual penetration of a child under 16, possessing cocaine, possessing MDMA and possessing a drug of dependence, ketamine.

The court heard the crimes took place on January 26, 2020, when a 15-year-old girl was staying at her friend's house at Warrnambool. The man was 25 at the time.

The group of three girls had been drinking and the victim said she wanted to try drugs.

She messaged the man – who had previously been in a relationship with her sister – and asked if he had any MDMA capsules and how much they cost.

The man, who was at a party, said they were $20 each and they arranged to meet in Warrnambool's Lava Street.

The girl bought three capsules for herself and her two friends, went home and consumed the drugs, before reaching out to the man for more.

At this time, the man offered the girl six capsules for sexual acts, before increasing it to eight when he grew impatient.

In the early hours of January 27, the man met with the three girls in the park, giving the friends one MDMA capsule each to get them to go away.

The man decided the park was not dark enough for them to engage in sex and they climbed a fence into a kindergarten.

While at the kindergarten, multiple sexual acts occurred.

The man gave the girl four MDMA capsules and walked away, leaving the girl alone and crying in the dark.

The victim reported the crime to the police soon after.

Police executed a search of the man's house on March 5, 2020, finding seven grams of MDMA in capsules, 0.5 grams of cocaine and one gram of Ketamine.

He told police officers that the drugs were his and that he thought the girl was 17 years old, despite denying having a relationship or conversation with her.

Judge Amanda Chambers said the girl was 10 years younger than the man at the time of the crimes.

"You were aware of how young she was, she even told you," Judge Chambers told the man.

The court heard the man was intoxicated at the time of the incident, consuming alcohol and MDMA at a party.

Judge Chambers said the court heard of the man's childhood where his father was abusive, and he developed selective mutism as well as an anxiety disorder.

The man had stable employment since age 18, despite consuming MDMA, Ketamine and cocaine on the weekends.

The man told doctors he "went stupid" after breaking up with the victim's older sister.

Judge Chambers said the man had no prior criminal history, was "otherwise a person of good character" and had good rehabilitation prospects.

She imposed a total sentence of four years and four months in prison with a non-parole period of two years and six months.

Judge Chambers also fined him $600 and put him on the sex offenders list for 15 years.



MISSING: Police are investigating the theft of quad bike, pictured, and farming equipment from a property at Warrion.

PHOTO SUPPLIED

Farm equipment stolen

BY GRETA LANNEN

Police are appealing for information about the theft of a quad bike and farming equipment from a property at Warrion.

Colac's Detective Leading Senior Constable Mick Palmer said the burglary happened between Friday afternoon and Monday morning at a paddock on Ileits Road.

He said the theft included one quad bike and farming equipment including star pickets, fence drainers, chemical drums and an electric fence tester.

People with any information about the theft should call Colac Police Station on 5232 8200 or Crime Stoppers on 1800 333 000.

New TAFE manager keen to get involved

BY LIAM MCCULLAGH

The new leader of Colac's TAFE campus says she's committed to expanding the courses on offer at the campus.

Naomi Harris is South West TAFE's new regional manager for Colac, and says she loves the idea of "being involved in her community."

The born and bred Colac local previously worked as a hairdresser, a product handler and production facilitator at Bulla but says education is something she has always been passionate about.

"I was looking for a change," Naomi said.

"The education sector has always been an interest to me, and I liked the idea of helping local people to obtain certificates here rather than travelling," she said.

Naomi said community involvement was a key reason she had taken on the role.

"I love the idea of being more involved in the community and the challenge that this role is going to bring.

"We will continue to look at ways to grow the local offers, so people don't have to travel out of town. I think Colac is big enough to be able to do that," she said.



PHOTO SUPPLIED

LEADER: Naomi Harris is enjoying the challenge of leading Colac's South West TAFE campus.

The Colac campus offers courses in agriculture, horticulture, individual support, disability and health services for high school students.

"It's a good selection and we will continue to work with the local community, industry and agriculture to support them with courses they need.

"The Colac campus has been gradually growing and there are now 123 students on campus and in local traineeships and apprenticeships," she said.

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Shutterbugs converge on Colac

BY GRETA LANNEN

The Colac Camera Club will host a prestigious state-wide event showcasing the amazing work of Victoria's amateur photographers, while giving them a chance to capture the beauty of the Colac district.

The Victorian Association of Photographic Societies' annual convention is in Colac from this afternoon until Monday.

The convention allows members of different camera clubs to come together to learn more about photography and socialise with other photographers, with presentations by guest speakers, workshops, an awards dinner and photographic excursions.

Colac Camera Club president Linda Reinen and member Mark Murray said they were excited to be hosting the prestigious event which will predominantly be at COPACC.

The club worked hard to apply for the host position and is relishing the opportunity after VAPS selected it as host.

"There'll be a lot of professional photographers and different workshops taking place for the people who have registered," Linda said.

"All of the camera clubs throughout the state send a certain number of images per club and then they're judged as an overall winner for the state for the year."

About 90 clubs will be represented over the weekend, with about 700 photographic entries on show, both prints and electronic digital images.

"It's just a buzz for it to be state-wide and have them all come to Colac, and they're pretty darn good photographers," Mark said.

Photographers are sure to have plenty to work with behind the camera when they travel around the region including to Lake Colac and the Colac Botanic Gardens for a dawn shoot, Red Rock, Tarndwarncoort for a farm walk, and Cressy Aerodrome where there'll be some action in the sky.

"They are really promoting the district," Linda said.

People must be a member of an affiliated camera club to attend the convention's events, but the photography display is open to the public.



PRESTIGIOUS PHOTOGRAPHERS: The Colac Camera Club is hosting the Victorian Association of Photographic Societies' prestigious annual convention at COPACC this weekend, drawing camera club members from across the state. Pictured are Gail Maddern, president Linda Reinen, Wayne Alexander, Kerrie Anderson, Murray Howard-Brooks, Lynn Sargeant and Mark Murray.

Motorist crashes into downed tree

BY GRETA LANNEN

A man escaped without serious injuries after his car struck a fallen tree between Colac and Carlisle River.

Colac SES unit controller Steve Tevelein said the motorist had been travelling along Carlisle Road at about 6am on Wednesday when his car hit the fallen tree.

He said it happened about a kilometre past the Irrewillipe Road intersection.

"He's just not seen the tree," Mr Tevelein said.

"He's done some damage to his vehicle. It's going to be off the road for a little bit."

Mr Tevelein said the driver did not suffer any serious injuries, and that SES crews were on the scene for about 20 minutes to clear the tree off the road.

Victoria Police also attended the scene.



BLOCKED: Colac SES officers clear a fallen tree at Carlisle River this week.

Pub manager clarifies Cobden crime details

A Cobden pub manager has provided clarifications related to an incident involving an Irish farm worker who torched a car last week.

Police previously told the *Colac Herald* it was alleged that a 25-year-old Cobden man had been involved in an altercation at Thommo's Hotel and made threats to kill inside the pub. It was alleged he then set a car alight some hours later.

The incident happened on Friday night, not Saturday, as previously reported.

"There were no threats to kill inside the hotel, nor was there any physical altercation in the hotel," pub manager Dennis Torpy told the *Colac Herald*.

The man later torched a car, but the car was not owned by the pub.

Police have charged the man with threats to kill, carrying a dangerous article and causing criminal damage by fire.

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CMM29716CP

Volunteers make a difference



Annual appeal: Good Friday volunteers like Stacey Harper and Myka Beaton helped raise a significant amount of funds for the Good Friday Appeal 2023D

COMMUNITIES across the region dug deep on Friday, sending more than $60,000 to the Royal Children's Hospital Good Friday Appeal.

Timboon and District Good Friday Appeal area manager Lee Edge thanked the community for its "overwhelming support".

"To all of our local CFA units, you all do a fantastic job year after year," she said.

"Thank you again for your support."

Ms Edge thanked the wider community for its ongoing support in helping to make a difference in the lives of children across Victoria.

"Thank you to everyone who donates, sponsors and collects on the day, every little bit helps," she said.

"The day went very smoothly overall with the community supporting the day.

"The annual golf day saw more than 20 teams play on the day. It was an absolutely great day."

Timboon and district supported the cause to the tune of $46,990 with district fire brigades rallying to bring in a large portion of the final total with Brucknell-Ayrford collecting $3893.50, Ecklin $814.95, Kennedy's Creek $1523.60, Lower Heytesbury $1734.95, Nirranda South $737.10, Nullawarre $4076.40, Peterborough $1940, Princetown $859.65, Port Campbell $1021.15, Simpson $2565.40 and Timboon $4548.70.

In addition to the CFA collection, the annual Eddie's Corner fundraiser raised $1462.35.

Cobden Quota Friends of Rotary appeal raised $13,500 for the cause, according to Cobden appeal manager Fran Warden.

"We went really well," she said.

"Cobden has been collecting for the Royal Childrens Hospital for 50 years now.

"I'd like to thank the community for their support, not only this year, but for the past 50 years."

Mrs Warden thanked all those who volunteered to collect this year.

"We had quite a few families who went out door knocking," she said.

"We also had Easter Bunny who went out collecting.

"I'd like to really thank the Cobden under 18 footballers who came out and collected; they covered quite a bit of the town."

Mrs Warden thanked Cobden businesses and in particular the Cobden Golf Club and Ritchies IGA for their support throughout the year.

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ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and will be hosting a community information session next week.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Wednesday 19 April 2023

Location: Scan the QR code for venue details

Time: Peterborough 12-2pm
Port Campbell 6-8pm

Light refreshments will be provided.

For more information about this event:

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King Island Courier

A Beacon for the Community

Vol. 38 No. 16 *Thursday, April 27, 2023* *$1.50*



A day for all generations

King Island District High School students broke their school holidays and attended Anzac Day commemorations in Currie. STORY, PICTURES: PAGE 9

MAYOR SEEKING MERGER DETAIL

THE King Island Council wants more information before deciding its stand on possible council amagamations.

A possible forcible merger with the West Coast, Circular Head, Waratah-Wynyard, and Burnie 'catchment area' is one proposal from the State Government's "Future of Local Government" review.

Mayor Marcus Blackie is in Northern Tasmania this week and will

Contnued page 2

DAWN OF NEW INDUSTRY – Page 3

Big weekend for island visitors

THE Anzac Day public holiday provided the opportunity for many on and off the island to take a four-day break. Visitors flew in for some pre-winter R&R and enjoyed bright sunny, even summery days for touring, golf and a bit of fishing and a lot of music listening.

The Moonbird Festival musical experience continued throughout the weekend. An evening Recital of 'Nocturne' for solo guitar performed by Andrew Blanch at the Brewhouse attracted a mixed audience who enjoyed pizza and beer; soirees at Red Hut, Waterwings Gallery in Currie, at Andrew and Di Blake's Whalehouse at Yellow Rock mixed local cuisine and performance and the old sheds at Currie Harbour treated and challenged the audience with 'new sounds' produced using violins made from eel and kelp. The inaugural festival closed on Sunday night with the Bowerbird final concert in the Currie Town Hall.

Ex-residents and musicians Charles and Ros Pearce returned to the island and travelled straight down south to Seal Rocks. They surprised tourism operator Ian Johnston and his off-road King Island Tours group with a memorable 'pop up' saxophone serenade during their paddock-to-plate experience. Charles performed later at the fully booked Wild Harvest restaurant and on Sunday at Legs wine bar and café in Currie.

King Island is becoming known as the destination to make a memorable experience. A group of friends from around Australia chose this four-day break to celebrate this year's significant birthday. The group, predominately from NSW and Queensland meet up every couple of years and celebrate a group birthday and on significant dates will create memories travelling somewhere special. This year King Island was chosen for the year's 50th birthday celebration. It was four days of golf, fishing around the island, and local dining. On Sunday, after having fishing success on the Naracoopa Jetty in the morning, they were excited to find the trevally running at the Currie Wharf. After the catch and release they were off to watch the footy, find a crayfish and have dinner at the King Island Club.

Dave said, "This is great, this is what making memories is about."



CLOCKWISE FROM TOP LEFT: A 50th full of golf fishing and footy makes memories for interstate visitors. • Classical guitarist Andrew Blanch performed the premiere of Nocturne at the Brewhouse.
• Roger Banfield, left, Ros Pearce, Sue Brooks, Sonia Louis and well-known horn player (ex) King Islander, Charles Pearce on sax entertained at Legs wine bar and cafe in Currie.

King Island Courier
A Beacon for the Community

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Mayor seeks merge detail

From page 1

speak with other mayors to gain their insights and prevailing sentiments.

The review proposes that Tasmania›s 29 councils be merged into nine "super-councils" based around "communities of interest" and include "any proposed consolidation or alteration of existing Tasmanian council boundaries."

The review places King Island in the "Western Community Catchment" and states that "the LGAs making up this region are actually considerably more closely connected than their geographical separation would suggest."

Local Government Minister Nic Street said that the Government intended to bring forward legislation to force council mergers and agreed to extend the review's final reporting date by three months, to September 30 to provide time for the community and the sector to meaningfully engage on reform proposals.

"Interestingly, Tasmania had 40+ Councils up until 1993 when we downsized to the current 29," Mr Blackie said.

"So, the current structure has had 30 years to establish and mature, during which time the Tasmanian population has increased by a third.

"So conversely you could argue we maybe need more councils again.

"Tasmania's councils are certainly not perfect and could always be improved but I would argue they do a pretty good job, all things considered, our streets are not like Venezuela or Afghanistan. Furthermore, did we the voters and ratepayers ask for this or vote for this reform agenda?

"At 115 years old King Island Council remains one of the oldest continuous councils in Tasmania.

"King Island Council is historic, successful and financially sound.

"Our isolation has honed our self-sufficiency and we provide the only layer of Government representation to King Islanders."



The Western Consultation Group as outlined in the Future of Local Government Review.

Western Consultation Group
West Coast, Waratah-Wynyard, Circular Head, King Island, Burnie

Dawn of new industry

GROUP 6 Metals (G6M) executives and senior management hosted raw materials sourcing, logistics, financing and marketing services firm Traxys for a site visit at the Dolphin Tungsten Mine on King Island this week.

Construction at Dolphin is nearing completion, with the first concentrate on target for Q2.

G6M entered a non-binding memorandum of understanding (MOU) with Fortescue Future Industries (FFI) to explore opportunities for providing renewable energy to the Dolphin Tungsten Mine.

Following the announcement earlier this month of the MOU, FFI Director East Coast and New Zealand Eva Hanly said FFI is working to help develop a new green energy and green hydrogen industry in Tasmania as well as deliver the local jobs and economic opportunity that can follow.

"This partnership with Group 6 Metals to look into powering its existing mine site with renewable energy is a really exciting prospect for us, as is the potential to use surplus power to produce green hydrogen and its derivatives and kickstart the local industry."



Helga, Tora, Inga and Ursa standing tall in a perfect sunrise on the Island.

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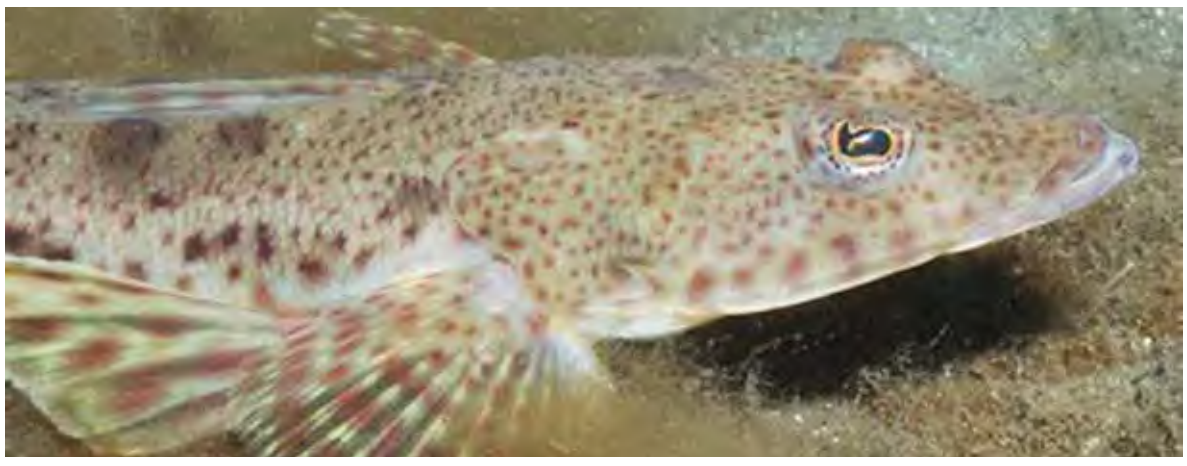
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Fishy favorite all but off the menu



Familiar to fishers, a Southern Sand Flathead.

KING Islanders will be limited to a daily bag-limit of just five Sand Flathead, with a minimum size of 35 centimetres under changes announced by the State Government to commence on 1 November.

Several other popular species such as southern calamari, striped and bastard trumpeter, blue warehou, southern garfish and jackass morwon are also the subject of consultation for proposed new conditions from 1 November. It is anticipated there will be further bag and size limits.

Last week, the Government announced immediate changes to the size and bag limit for flathead with the further proposed big changes to commence from November 1.

This is despite the Government saying just three months ago there would be no changes.

Immediate interim measures for Sand Flathead have been introduced which came into effect on April 20.These include: minimum size and limit for flathead being increased from 32 to 35 centimetres, and a new statewide daily bag limit of 10 flathead (was 20).

From 1 November, (subject to consultation) it is proposed to limit the daily bag limit to just two fish in the south, and five fish for the remainder of the state, with a maximum size of 38 centimetres in the south, and 40 centimetres for the remainder of the state (no size limit on Bass Strait Islands).

People can have their say at https://fishing.tas.gov.au/community/fisheries-management/management-changes/scalefish-fishery-rule-changes.

The new measures come after an assessment late last year conducted by the Institute for Marine and Antarctic Studies on a number of scalefish species to being marked as either depleted or depleting.

Flathead is the most popular recreational fish in Tasmania and has been labelled as 'depleted".

Protecting future of our fisheries

JO PALMER
Minister for Primary Industries and Water

FROM enjoying fish and chips with the family to heading out on the boat to catch a few "flatties", fishing plays an important role in the lives of so many Tasmanians living in the North West and West.

Growing up on the doorstep of waterways from Strahan to Burnie creates a special connection to our fisheries and I want to ensure we protect this way of life for our children and grandchildren.

A recent report from the Institute for Marine and Antarctic Studies found a number of Tasmania's scalefish species are depleting or depleted. This includes southern calamari, striped trumpeter, bastard trumpeter, blue warehou, southern garfish and jackass morwong.

Of particular concern is the depleted status of the sand flathead, which is our most important recreational fish. It accounts for 70 per cent of all recreational fish caught in the State.

The science tells us we must make decisions now that will help our fishery tomorrow and that is why

I have introduced interim measures on sand flathead.

Coming into effect on April 20, these interim measures include an increase to the minimum size limit of sand flathead from 32 to 35 centimetres and a new statewide bag limit of 10 sand flathead for recreational fishers.

The commercial take of sand flathead from Frederick Henry and Norfolk Bays [Tasmania] has also been prohibited as precautionary measure.

These interim measures will be in place until 1 November 2023 and are an important step towards protecting the future of our fishery for our children and grandchildren.

I want to ensure Tasmanians can continue fishing for generations to come and that is why we are also consulting on a range of proposed scalefish rule changes for recreational and commercial fishers.

These rules include reviewing fish size and bag limits for depleted species; introducing two new limited commercial calamari licence types; reviewing recreational gillnetting arrangements; and introducing registration of charter fishing operation and reporting requirements.

I encourage all Tasmanians to attend the public information sessions on the proposed rule changes being held across the State during April and May.

This will be a chance to learn more about the proposed changes and to have your say. Consultation is open until May 29.

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NOTE: Initially, receival days for delivering freight into the depot will be Wednesdays and Thursdays, 8:30am - 3pm.

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Footy up for 111th

KING Island Football is 110 years old, is the only three-team competition in Australia and it is fully volunteer-run.

The 111th-year season starts next Saturday 29 April 2023, and all games are at the Currie Oval in Netherby Road.

Auskick 5 – 12 years boys and girls start at 10.30 am.

Players need to be registered before attending play. afl Enter 'King Island Auskick Centre' as the club/centre. For information, questions and offers of help, contact Stacy Martin call on 0429 611 019.

Start times Juniors 12.30 pm

Seniors 2.30 pm

Umpires are in short supply again, and KIFA is calling for people to step up and get in touch.

With help from AFL Tasmania, the KIFA has interchange agreements in place with all the leagues in Tasmania to help to make it easier for players who come to the island for work and would like to play while they are here.

The first game of the 2023 season is a replay of last year's Grand Final between Grassy Hawks and North Bulldogs.

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Long-awaited work to start on slipway







Repair works to commence on the closed Currie Wharf slipway in June.

TASPORTS has engaged Tasmanian-based contractor BridgePro Engineering to undertake repairs to damaged sections of the slipway at the Port of Currie which was closed to fishers late last year just prior to the opening of the cray season.

TasPorts Chief Operating Officer Stephen Casey said the works would begin at the start of June this year and are expected to be completed within a month.

Despite the King Island Slip taking bookings and providing six months of assurances to boat owners and fishers, TasPorts closed the slip just days away from the fishers' peak trading period and suggested that they tow their boats elsewhere for work.

While the King Island slipway was closed, the Port of Stanley slipway was identified as the most suitable alternative to meet the needs of the Currie-based fishing vessel operators.

"TasPorts closed the slipway at the port late last year because of the poor condition of submerged sections of the slipway given its age and exposure to the marine environment over many years," Mr Casey said.

"It was not a decision taken lightly and was taken in the context of ensuring the safety of King Island's fishing fleet operators, and TasPorts' personnel, and the wider community," he said.

Mr Casey thanked Port of Currie slipway users for their cooperation during the closure, in particular King Island fishing representatives who worked closely with TasPorts.

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Island bonds survives p

IT WAS 1988 and the King Island District High School Year 10 kids left the island to continue their schooling, take on jobs and explore the world.

Over the weekend, the '88 tribe came together once again. They came from far and wide and met up on King Island to celebrate Monique Daniel's 50th birthday. Some old schoolmates still live on the island, some have visited their families since leaving and others have never been back to the island since leaving for life in other places. Monique's birthday was just the reason to have a long-awaited get-together and reunion.

Monique's brother Paul and wife Cynthia Daniel hosted the big bash at their Pegarah Road property shed. Some second names have changed, in some cases more than once, but it was a good year producing some well-known island identities and partnerships.

Then there were the families and locals who were not in the 1988 cohort but are part of the King Island tapestry. Bergin through Bowling to Eelman, Fitzpatrick, on through the island alphabet of names reaching Summers, Whitehouse and Wishnact.

Monique has her album of pictures and said reminiscing with old friends and making new memories was wonderful. "All my friends from both my King Island home and from away kept saying, 'You've got really good friends, and I'd just say, that's because we are all connected by the same thread. It runs through us all because… you are my friends."





ABOVE: Away friend Megan Lowerson and Monique get into the country party vibe.

LEFT: Carly, Cynthia and Paul Daniel with sister and birthday girl Monique with husband Peter Anna and friend Nikki.

ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Thursday 18 May 2023

Location: King Island Town Hall

Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
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ABOVE: Sonia and Jeanette Eelman.

LEFT: Sing like there's no tomorrow Monique Daniels (front) with Tony Byrne husband Pete Annand and daughter Carly

Pictured: NIKKI

TOP: Kymm Hill and Monique Daniels at the airport meet and greet.

LEFT: Kathryn Parkinson with Dave Bowling remembering the good ol' days.

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Medals to those who step up

LAST Saturday four King Island firefighters volunteer personnel were recognized and awarded at the Tasmanian Emergency Services North West Region medal National and State presentations in Penguin.

Robert Payne Boyd Hoare and Chris Crouch were recognised with TFS National Medal First Clasp and David McKerrow Peter Constable received the National Medal. Robert Payne Boyd Hoare both also received 30-year Service awards in line with the National Medal.

In 2021 David McKerrow (who recently left King Island) and Jan van Ruiswyk were acknowledged with a National Medal and Rod McGarvie, who has received previous Awards, was recognised then for his 50 years of long service.

The National Medal was established on 14 February 1975 as one of the original elements of the distinctive Australian system of honours and awards. It recognises long and diligent service by members of recognised government and voluntary organisations that risk their lives or safety to protect or assist the community in the enforcement of the law or in times of emergency or natural disaster.

"The National Medal: For Service" is worn on the left breast on all occasions when Australian full-size orders, decorations and medals are worn.

Last week many King Islanders witnessed firsthand the critical role our volunteer emergency services play when Darren Brandenburg went missing and fortunately was safely located.

The visual for many in Currie and surrounds was the arrival of a Tasmanian search and rescue helicopter as it swept the township and surrounds in the search, and it made the situation real. On the ground, Tasmanian Police briefed the volunteer emergency services and they were deployed. While the helicopter was heard and seen, the King Island emergency services were on the frontline with the challenges of being in a small community, knowing the players they were helping and not knowing what outcomes they would face.

The recent awards honoured our emergency service volunteers. The awards highlighted the proportion of people who are active island volunteer officers who have received National Honour awards this year and in previous years.

They do grow old as we grow old, age does weary them, and the end horizon is quickly approaching when predictably a core number across the island's emergency essential services will end their duty and obligation to the community. Others need to step up now and join the island's emergency brigades so that in the not-too-distant future the next lost child, man or dog will be found; that fire will be stopped from getting out of control and life and property is saved and that life-saving breath or getting to the hospital happens.



SES Volunteer Dennis Beveridge with police helicopter in the background searching for the missing man.
Picture: Vinnie Holthouse

Local data tuneup

EARLIER this year, the King Island Council monthly meeting minutes recorded that the council planned to implement a standard review of its cybersecurity and data protection and security and was proceeding with this action.

The proactive, protective, local action to review internal processes is considered sound practice, particularly given the national corporate data breaches (Medicare, Optus, Latitude and others) that have increasingly occurred and impacted residents on the island and elsewhere.

The King Island data risk management decisions were made prior to the recent ransomware gang Cl0p exploiting a vulnerability in the third-party file transfer site GoAnywhere MFT and the subsequent release of state government-controlled documents on the dark web which revealed Tasmanian residents' personal details.

The mayor advised the Courier that a technical specialist was due on the island and would be undertaking the planned review of data security and systems.

Support for small business

THE State Government is bolstering the provision of business advice to entrepreneurs with the release of the New Business Support Pilot Program.

This program will support those looking to launch a new small business and new businesses, providing them with the information and resources needed to take the first steps to see their ideas through to fruition.

Under the New Business Support Pilot Program, participants will receive up to two hours of free advice from qualified business advisors.

The New Business Support Pilot Program will begin on 1 July 2023 and will complement the advice services offered to more established businesses through the Tasmanian Business Advice Service.

A grant program to fund the delivery of services by up to four service providers across four regions opened on 17 April 2023 and closes on 12 May 2023.

The Program will be delivered for an initial 12-months from July 1 to June 30, 2024.

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Anzac traditions live on





Speaker Ryan Cooke, grandson of King Island soldier settlers Bob and Hazel Cooke and son of Ira and Rosemary Cooke, nephew of Coralyn and Gahey. He read *Our Sarge* a poem written about his great uncle Allan Cooke who with his brother Bob served in the Royal Australian Artillery 234 Australian Light Anti-Aircraft Battery in New Guinea.



TOP: King Island Anzac Day 2023 commemoration at the Cenotaph in front of the Currie Town Hall. ABOVE: The Anzac Day service began with a parade to the centotaph following the Honour and Service organisation flags. BELOW: King Island RSL Subbranch president Tom Shaw at the Anzac Day commemoration service in Currie.



Numbers dwindling

ABOUT 100 King Islanders gathered in the dark at the Cenotaph in Currie for this year's AnzacDawn Service.

They spoke in whispers and then stood sombrely in silence to honour the generations from the past to the present who selflessly served the country.

The first rays of light began colouring the horizon and the momentary strokes illuminated King Island RSL Subbranch president Tom Shaw as he spoke of the defining moments and commonalities between each generational Australian war or conflict and what underpins the spirit of Anzac.

AnzacDay 2023 marked 50 years since Australia's involvement In Vietnam. King Island RSL Subbranch vice president and Vietnam veteran Gary Barker spoke of the contentious issues that surrounded Australia's involvement and the refusal to acknowledge returning soldiers' Vietnam service, the overall lack of support including within the RSL.

Until 2021 only one King Island Vietnam veteran was recognised, Ian Lynch.

President Tom Shaw recalled the names of the 35 King Islanders who served in Vietnam at the Dawn Service.

Their names are now remembered on the Honour Board roll in the RSL Club rooms.

Numbers were noticeably lower this year, but still following tradition, people lined Main Street and gathered at the Cenotaph for the march and Main Service.

In bright sunshine members of service organisations, the community and King Island District students (who broke school holidays to attend) marched behind the Honour and service organisation flags to the town hall and cenotaph to reflect on the legacy of those who have served the nation, their values and the challenges.

This year's guest was Sergeant Ryan Cooke, an ADF veteran with operational service. His grandparents Bob and Hazel were King Island soldier settlers, his father and mother are Cr Ira and Rosemary Cooke, nephew of Corralyn and Gahey. The family arrived on King Island around 1958 and settled on Contention Road, now called Lancaster Road.

Three cheers for veg



Jackie Goodwin with Christian Robertson and members cleared and prepped the Community Garden beds for planting at the recent working bee.



Phoenix House project coordinator Katey Griffiths and members celebrated Vege Month with vegetarian lunch that included brocomole and vege sticks.



It's garlic bulb planting time and Janet Hamilton cleaned and separated bulbs ready for planting out in the ground.

THE King Island Community Garden members braved the weather last week during the Working Bee Day and gave a much-needed helping hand to clear out existing beds and ready them for the new season and prepared garlic for planting.

Phoenix House is active in the Eat Well Tasmania program which champions healthy eating and promotes opportunities to eat healthy Tasmanian-grown produce and value-added food. April was 'Vege Month' and was celebrated with a lunch of Brocomole and Vege Sticks, Garlic Potatoes and Cheesy Vege Bake.

This week's 'Veg it Up in the Garden' cooking classes used the Community Garden organic vegetables to make BBQ Cauliflower steaks, Sweet Potato fries and Tromboncino fritters. Siripa Day is back today with her popular Thai cooking class, with recipes that are designed seasonally and what is grown and available in the garden.

Phoenix House is hopeful that it will be successful with grant applications and will be able to replace more of the existing old pallet beds with double sleeper height raised beds. We will have more outside beds available come July and will inform members when they are ready for planting.

Phoenix Community House in partnership with King Island Lions Club is now a drop-off point for can recycling. The red and yellow bins are at the back of the complex, near the Men's Shed, 25 Meech Street Currie.

Tickets are on sale at the House and at the Grassy Op Shop for the Phoenix House Mother's Day raffle which will be drawn 10 May. This year's basket of goodies includes bath items, face and body pampering products and winter comfort treats.



Action last year ... Emerald Kaylie Smith contests the ball with Topaz Stella Smith.

Netball part of island fabric

ON COURT
STEPH ELLIS

NETBALL is an integral part of our island's community's fabric and wellbeing.

Sport provides our community with mental, social, educational and physical benefits and brings people together, on and off the court. Pleasingly, King Island Netball returns in May with three winter competitions - Under 12's (Grades 3-5), Under 16's (Grades 6-10) and an Open Women's competition.

The 2023 executive committee is comprised of Lauren Harvey (President), Tegan Hennessy (Vice President), Paige Williams (Secretary) and Steph Ellis (Treasurer).

Vying for the 2023 Open Premiership are the North Bulldogs, Currie FNC, Salty Muttonbirds and the Grassy Netball team. The competition will be played on a Tuesday evening in the school gym.

Competing for the jewels in the Under 12's competition are Rubies (coached by Emma Hutchinson, Abbey Jones and Mel Shaw), Topaz (coached by Claire Perry and Paige Williams) and Emeralds (coached by Petrina Clemons).

Playing for the Under 16's Premiers title will be Netherby (coached by Tegan Hennessy, Nicole Vasta, Sarah McRae), Neva (coached by Noami Holmequest and Jess Bell) and Shannon (coached by Rikki Smitheran and Tegan Harris).

This year, the Under 12 and Under 16 competitions will be played on a Saturday morning.

Net-Set-Go will commence on July 10th, running for 12 weeks between 3.10 pm and 4 pm. The later season start date is to allow as many kids as possible the opportunity to try Auskick and Net-Set-Go (which previously ran at the same time of year).

The Netball Association is pleased to welcome on board a wide range of sponsors this year. The association is also unveiling a new logo, website and merchandise line to celebrate its 65th year of netball on King Island.

There are still playing and umpiring opportunities available. Anyone interested should reach out to the executive via kinetballassoc@gmail.com.

Happy netballing,

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King Island Courier
A Beacon for the Community

Golf

One champ round to go

BUGGY

ONE more round to go in the Club Championships. It's still a two-player race to take out this year's Championship.

A good field of twenty, in near-perfect conditions took part in the third round and scores reflected it.

It would appear Tim Barnes has made the most of the conditions to record an excellent 74 off the stick. His challenger Sukma Bowling is 84 and now 10 shots behind. However, it's best 3 of 4 rounds so it still could be very close.

The winner for the week was Lance Anderson with a nett 68, 88 off the stick. Runner up was the veteran Jim the Saint McFadzean on 70 nett. Life member and oldest player Golfer Saint Noble 73 nett.

The current leaders in each grade

A Grade

Tim Barnes 227

Sukma Bowling 237

B Grade

James Jakowenko 269

Nathan Melville 279

C Grade

Lance Anderson 286

Greg Barratt 304

All three grade leaders have good leads over their rivals.

Next week's round will not be a draw so turn up and play your weekly game with whomever you would like to play with. Players will wait with bated breath on the final outcome of Club Champions.

Nearest the Pin 3/12 Phil Noble

18th No-one

Money Hole Lance Anderson

Overall nett leaders are Tim Barnes and Lance Anderson on 224 and Geoff Watts on 230. The next best is James Jakowenko 233 and several players on 238.

Two players succeeded in recording a Moose – 10 on one hole. No names this week, but if repeated headlines next week.



Good day for golf on the classic third hole.

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NEWS

Illegal fish haul at Basin

LAW AND ORDER

BY JESSICA HOWARD

Warrnambool

A VIETNAMESE national was caught with more than 20 times the legal catch limit of abalone from a Killarney beach.

Dieu Van Nguyen, 60, pleaded guilty in Warrnambool Magistrates Court to Fisheries Act charges relating to exceeding the catch and size limit of abalone.

The court heard he was observed by Killarney residents taking a large amount of abalone from The Basin on January 3 this year.

Victorian Fisheries Authority were called and authorised officers attended the scene at 5.35pm.

Nguyen and another male were seen wearing camouflage-print wet suits and walking towards a Toyota RAV4.

A female and a young male were in the car.

When asked if they had any fish, the young male retrieved 14 abalone, of which 10 were undersized, from the boot of the car.

The daily catch limit of abalone is five and they must measure at least 13 centimetres in the Port Fairy coastal reserve area.

The officers took the abalone and when returning them to the water, they were approached by three community members who said they had seen two of the men with a three-quarter-full bag of abalone.

One witness said they confronted Nguyen who didn't respond.



Man exceeds catch limit.

The officers were taken to the location the group had been diving at and they found a homemade green catch bag with 73 live abalone, of which 70 were undersize. A further search two days later found an almost identical green catch bag containing another 23 abalone, which were in the process of decay.

The court heard a total of 110 abalone were taken by Nguyen - 22 times the legal limit.

A lawyer for Nguyen said the man had moved to Australia from Vietnam in November last year and knew nothing about the nation's laws.

Magistrate Simon Guthrie said he considered the offending serious, particularly when laws were in place to protect the nation's marine industries.

The court heard co-accused Thi Nguyen and Anh Duong Do would plead not guilty to the offending.

Mr Guthrie said he would prefer to wait to see what happened in their matters before handing down his sentence.

Nguyen will appear in court again on June 19.

Residents urged to get flu shot ahead of 'perfect storm'

HEALTH

Region

SOUTH-WEST residents are being urged to get a flu shot, with predictions a range of flu-like viruses could create a "perfect storm" this winter.

In Warrnambool, there have been 34 confirmed influenza cases this year, while there have been 12 in Moyne Shire.

This is higher than the number of cases in Glenelg Shire, which has had four and Southern Grampians Shire, which has had six. There have been three cases reported in Corangamite Shire.

Chemist Warehouse Warrnambool's Jason Yacoub said flu shots had been available since late March.

"There have been a lot of people booking appointments," he said.

Mr Yacoub said the flu shots were available at the Gateway Plaza chemist and people could book online.

He said the chemist had a good supply of the flu vaccinations. Bupa Health Insurance chief medical officer Tony MacDermott said modelling from the northern hemisphere winter indicated the flu season would arrive earlier than expected in Australia and be worse than last year, with more hospitalisations likely.

Dr MacDermott encouraged people to get vaccinated before the end of May to ensure they were protected.

"We're anticipating a perfect storm of flu, COVID-19 and other flu-like viruses to come together this winter," he said.

"The best protection will always be prevention, and our advice to people who are due for their COVID booster is to get their flu shot together with their COVID booster ahead of the winter season."

Dr MacDermott said flu trends in the US, where hospitalisation rates were significantly higher than the year before, would likely be mirrored in Australia.

"The higher risk of being hospitalised with the flu this year means it's even more important to get vaccinated, especially for high-risk groups," he said.

Australian Medical Association vice-president Danielle McMullen said those most at risk from the flu were people under five and over 65, as well as those with serious health conditions.

"Getting a flu vaccination will provide protection against the more serious effects of influenza and help us protect loved ones," she said.

Royal Australian College of General Practitioners president Nicole Higgins said Australia had already recorded more than 21,000 cases of flu this year - far higher than during the pandemic.

"People have been travelling more and we've stopped measures like wearing masks and washing our hands which allows flu to spread," she said.

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Date: Tuesday 2nd May 2023

Location: Port Fairy Community House at Railway Place

Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

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NEWS

Swap your old hat for a new one

BUSINESS

BY MADELEINE MCNEIL

Warrnambool



Warrnambool's Phinc is stocking and selling people's pre-loved headwear in the lead-up to the May Racing Carnival. Any unsold items are returned to the original owner. Pictured is owner Tracey Togni with one of the hats for sale. Picture by Sean McKenna

PRE-LOVED hats and fascinators gathering dust are getting a new lease on life with a Warrnambool boutique helping pass them on to new owners in time for the May Racing Carnival.

With less than a week until the popular carnival, Warrnambool boutique Phinc is stocking and selling people's pre-loved headwear with the original owner receiving a store credit once it is purchased.

Phinc owner Tracey Togni said the credit could go towards purchasing a new item such as clothing or shoes or another pre-loved hat from the selection.

She said some women purchased a pre-loved hat to wear to the carnival and then resold it the next year.

"It means people can change up their hat," Ms Togni said. "You'll buy a hat but you're not going to wear it every season, you might share it, but sometimes they sit in your wardrobe so you're better off to change them over and you can pick up another one."

The headwear is used to create new looks for a fraction of the hat's original price, with some new owners tweaking it to suit their chosen outfit or colour palette.

The sustainable initiative ensured the items were being used and loved by someone else rather than sitting unused at home, she said.

Ms Togni said the initiative was in its third year and had proven popular. "One woman brought in five hats and she's sold three of them," she said. "At the end of it we'll total it all up. She might have $150 to buy a new pair of shoes."

Touch of green for Irish celebration



The Koroit Irish Festival kicked off with a book club on Thursday. The festival runs until Sunday.

WHAT'S ON

Region

TODAY

LAUNCH: Hamilton Performing Arts Centre 2023 season launch, 4pm-7pm.

FESTIVAL: Koroit Irish Festival, various venues, runs until Sunday.

DANCE: Silence, Lighthouse Theatre, 7.30pm-8.30pm.

TOMORROW

MOTOCROSS: Junior Victorian Motocross Title, Lake Gillear Motocross Track, racing from 10am Saturday and Sunday.

FOOTBALL: Hampden, North Warrnambool Eagles v Cobden, Bushfield Recreation Reserve, 2pm. Warrnambool and district, Nirranda v Merrivale, Nirranda Recreation Reserve, 2.20pm.

BASKETBALL: Big V, ARC Stadium, Warrnambool Mermaids from 5.30pm, Warrnambool Seahawks from 7.30pm.

SUNDAY

MUSIC: Lee Morgan, Hotel Warrnambool, from 3pm.

ANZAC: Service, Orford Memorial Hall, 11am followed by barbecue lunch.

SOCCER: Warrnambool Wolves v Warrnambool Rangers, Harris Street Reserve, from 3pm.

ENVIRONMENT: Shearwater walk and talk, Griffiths Island, 11am-noon.

TUESDAY

HORSES: May Racing Carnival, Warrnambool Racecourse, runs Tuesday to Thursday.

WEDNESDAY

GREYHOUNDS: Warrnambool Cup 2023, Warrnambool Showgrounds, gates from 5pm.

– LILLIAN ALTMAN



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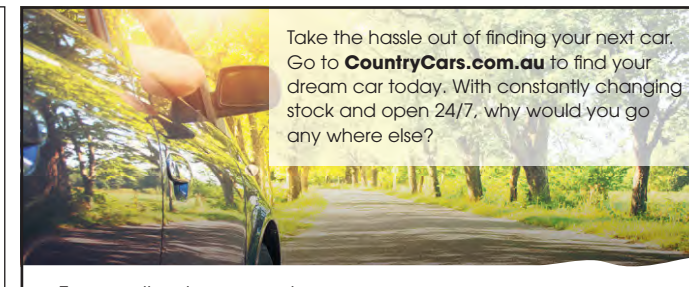
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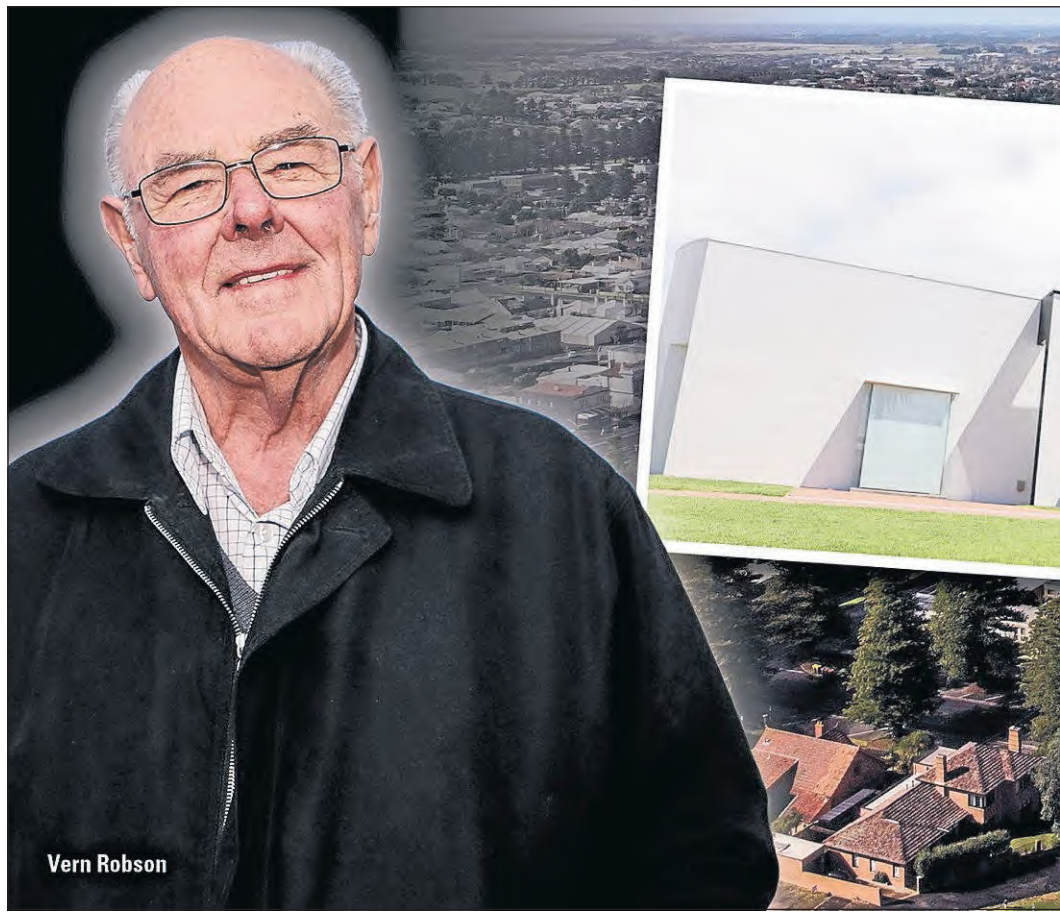
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NEWS

Cannon Hill not new idea for gallery



LOCAL GOVERNMENT

BY KATRINA LOVELL

Warrnambool

IN A case of history repeating itself, it seems building an art gallery at Cannon Hill is not a new concept with the idea first mooted for the city in the 1970s.

The proposed move could have seen an art gallery incorporated into a 1000-seat performing arts centre on the prominent site.

But the idea didn't take off after the mayor of the day used his casting vote which saw the town hall renovated and expand into what is now known as the Lighthouse Theatre rather than move to a new facility.

The current Warrnambool City Council is investigating the possibility of building a new art gallery on the top of Cannon Hill with a business case into the site under way.

The 4-3 vote of council to do a $100,000-plus business case on the Cannon Hill site caused backlash from the community with multiple petitions attracting thousands of signatures and a 'Hands off Cannon Hill' bumper sticker campaign. A petition in support of the idea attracted 500 signatures.

According to the book detailing Warrnambool's history, *By These We Flourish,* theauthors wrote in the late 1970s the search for a site for a new art complex considered 20 locations including Caramut Road, Sherwood Park and Cannon Hill.

But the suggestion of Cannon Hill, the book says, was opposed by a vocal councillor, as well as then-Member for Warrnambool Ian Smith and a "considerable body of public opinion" including a petition signed by 500 people.

Mr Smith, now 83, said he no longer recalled much of the debate but as a local member would have been lobbying for it not to be on Cannon Hill. "It's quite an iconic site ... you wouldn't want to pollute it much further," he said.

"You don't want to have sprawling asphalt all over the place to provide car parking."

Former town clerk Vern Robson said one of the suggestions was to build a 1000-seat performing arts centre on the top of Cannon Hill which incorporated an art gallery and underground car park. "That was all part of the debate at the time," he said.

The need for a conference facility, upgraded performance space and bigger art gallery were all on the agenda. At the time the gallery was outgrowing the former bank building on the corner of Kepler and Timor streets.

And the town hall was in dire need of an upgrade with performers having to change in tents erected at the side of the venue and there were no proper toilet facilities. "It was really a disgrace. You couldn't describe it any other way," Mr Robson said.

When, in about 1977, the town hall was declared unsafe, councillors' focus turned to preserving the old town hall's ornate ceiling which was more than 100 years old. "A lot of people loved the old town hall and they loved the old ceiling," Mr Robson said.

The mayor's casting vote sealed the future of a new performing arts centre on the current site and saved the ornate ceiling. "It was a very controversial debate," Mr Robson said.

But the biggest focus for ratepayers' groups was the cost of having a new facility

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DEATH

SHIRLEY ANN MEWETT (Bartle)
25/4/1937 - 19/5/2023
Aged 86 years

It is with great sandess the family would like to inform of the passing of Shirley Ann Mewett (Bartle), Friday, 19/5/2023. Beloved mother of Garry, Donna, Amanda and Lorrene; much loved grandmother and great grandmother. Forever remembered with love.

DEATH

PICHA - Joan, passed away on 16/5/2023. Aged 92. Beloved wife of Mike (dec); loved mother and mother-in-law of Helen, Sue, Mark, Andrew and Vanessa; grandmother of Renae and Matt, David and Marieclaire, Stephanie, Emma (dec), Justin and Mish, Josha and Daniel; great grandmother of Chloe, Liam, Patrick, Hailey, Amy and Jayden.

SHELTON - Rose Patricia Ada, on 17th May, at Hamilton, aged 53 years. Loved partner of Andrew; loved and loving mother and mother-in-law of Tamara and Robin, Dylan and Chloe, Jack and Tessa; cherished Nanna Rose of Justin and Bjorn (Bear). Reunited with her three Angel granddaughters Elouisa, Elsie and Poppie.

FUNERAL

SHELTON - A funeral service for the late Miss Rose Patricia Ada Shelton will be held at Hamilton Institute of Rural Learning, 333 North Boundary Road, Hamilton, on WEDNESDAY, 24th MAY at 10.30AM. The funeral will leave at the conclusion of the service for the Hamilton Lawn Cemetery.

The service can be viewed online at www.fgreed.com.au/memorial-tributes/ This page will be available from Thursday the 25th May.

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Date: Wednesday 31 May
Location: Portland Yacht Club
Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

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NEWS

Irish spirit flows through the streets of Koroit

COMMUNITY

BY LILLIAN ALTMAN

Koroit

MORE than a year ago, the Consul General of the United States of America was driving along the Great Ocean Road when she spotted a Koroit Irish Festival sign.

The Melbourne-based Kathleen Lively took it as a sign to attend the festival in 2023.

"I came back to the consulate and I said 'they've got an Irish festival, have you ever been?' They said no and I said 'we're going to go next year'," she told *The Standard*. Ms Lively said Koroit was a tight-knit and welcoming community. "They're so happy to have guests and talk to people from near and far," she said.

The festival held a book club session on Thursday before its opening night on Friday, with festivities including Irish sports and music and competitions across the rest of the weekend.

It has become a gathering not just for people from the south-west and interstate, but Irish expats.

Lorraine Monaghan, who lives in Adelaide, attended with a group of disability carers, and her sister, Sinead, who travelled from Dublin.

"When I was over here last year at the festival I got so emotional in the pub one night I had to leave," Lorraine said. "I was crying because the songs reminded me of home."



Greta Murphy, 7, from Melbourne proudly wearing an Irish for a day sash.



Jameson, 14, Dylan, Leanne and Bradley Wood took part in the street procession. Jameson won the Australia's most Irish name competition.

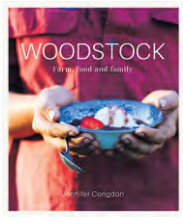


Consul General of the United States of America Kathleen Lively in the street procession alongside Paddy Kelly. Pictures by Eddie Guerrero

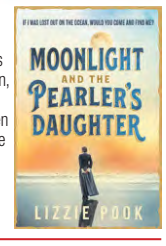
Mother's Day

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Jennifer Congdon
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Lizzie Pook
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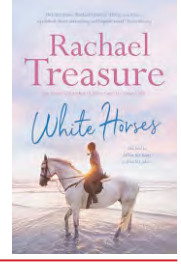
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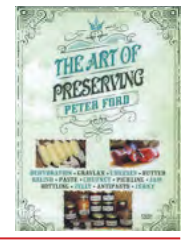
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Sophie Hansen
Nothing says 'I love you, I've got you and I'm here' better than a parcel of food you've taken the time to make, wrap and deliver. So, season by season, here are 130 recipes to cook for loved ones who might be moving house, busy with a newborn, celebrating a milestone, recovering after illness, grieving, or just in need of a little love and appreciation.
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ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Tuesday 2nd May 2023
Location: Port Fairy Community House at Railway Place
Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
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THE STANDARD

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NEWS

Accused brothers in court

LAW AND ORDER

BY JESSICA HOWARD

Warrnambool

WARRNAMBOOL brothers charged over their alleged involvement in a string of ram raids and burglaries across the south-west have now been charged with trafficking methamphetamine.

Luke and Kaine Moon were arrested in March and subsequently charged with 19 offences, including burglary, theft, criminal damage, and theft from motor vehicles.

The charges relate to an alleged crime spree spanning two months and involving multiple burglaries, including the theft of more than $70,000 cash from a residential property and a ram raid at the BP IGA Express on Mortlake Road.

The brothers, aged 38 and 36, faced Warrnambool Magistrates Court on Monday for a mention hearing.

An additional charge of trafficking the drug ice was laid against them three days earlier.

The court heard the charge relied on alleged evidence recorded on a dash cam, as well as mobile phone records.

Tim Hancock, representing Kaine, said the prosecution had agreed all charges could be heard in the magistrates court, and not a higher court, despite the amount of damage allegedly caused to local businesses exceeding $100,000.

He admitted his client was also accused of stealing the large quantity of cash as well as vehicles of "significant value".

Police allege the brothers stole vehicles in burglaries at two Warrnambool businesses before using them in the alleged ram raid at the BP service station and retail store Cheap As Chips.

It is alleged the two balaclava-clad men reversed into the Mortlake Road service station just after midnight on February 22 and failed to steal an ATM.

The brothers are also charged in relation to burglaries at the Warrnambool Football Netball Club and Cobden Golf Club on February 27, an attempted burglary at a Dennington service station on March 8, a burglary and theft at residential property in Allansford's Station Street on March 16, and attempted burglaries at a Mortlake Road laundromat on March 18 and 29.

Lawyers for both men asked magistrate Peter Mellas on Monday for an adjournment, which was granted.

The brothers, who remain in custody on remand, will appear in the same court on May 29 for a further mention hearing.

Warrnambool police Detective Sergeant Andy Raven previously told *The Standard* the alleged offending caused havoc in the middle of the night and while innocent victims were asleep.

"This has cost a lot of business owners their livelihood with cars being stolen and extensive amounts of damage caused," he said.

Medication reform will lead to 'astronomical shortages'

HEALTH

Camperdown

A MAJOR pharmacy reform allowing residents to buy twice as many medications for the price of one script has Camperdown pharmacists fearing a medicine shortage in the south-west.

Health minister Mark Butler last month said a 60-day supply of 320 medications, rather than the current 30-day supply, would be made available from September.

He said the changes would effectively halve the cost of medications treating chronic conditions such as heart disease, cholesterol, Crohn's disease and hypertension.

But Sarah Venn and Sarah Baker, who own Camperdown Pharmacy and The Little Pharmacy & Shoe Shop, said the changes would decrease regional patients' access to healthcare.

"To implement something like this so quickly, you have to get all of these medicines into Australia. The whole supply chain is not cracked up for 300-plus medicines and the shortages will be gigantic," Ms Venn said.

She said there were already about 400 medications listed as being in short supply. "We already spend hours each week trying to ensure our pharmacy has enough medication for our customers," Ms Venn said. "Sixty-day dispensing means there could be astronomical shortages."

Ms Venn said keeping larger quantities of medications at home could also cause confusion and was a risk to "everyone, especially children".

"Accidental overdoses can lead to hospital admissions and we don't want to be part of that problem," she said.

Ms Baker said the proposed changes would also inevitably reduce revenue to pharmacies.

"A cut to healthcare is the last thing we need in country healthcare and will lead to an increase in costs to services pharmacies provide for free or at a reduced cost, like home delivery, blood pressure management, vaccinations and services to nursing homes," she said.

"It will also result in job losses unfortunately."

The health minister has denied the changes would affect medication supply, stating only seven of the proposed medications to be listed had any supply issues.



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King Island Courier

A Beacon for the Community

Vol. 38 No. 17 *Thursday, May 4, 2023* *$1.50*



Cosmopolitan inside and outside at Legs Wine Bar and Cafe. Front row, left to right: Charles Nari, Rois Supriyono. Second row, left to right: Carlos Martin Carnal, Shane Freeman, Brian Groot, Heleen Zweepe, Liang Chen, Indira Casto de Leon, Paula Reynoso, Beth Barnes and Vika Diningrum.

ACTION STATIONS AT DOLPHIN MINE

GROUP 6 Metals will be ready to start production as early as next week.

The company this week told the Australian Stock Exchange (ASX) that construction of the Grassy process plant was nearing completion.

The first sale of concentrate is planned for June.

The company is optimistic as there are strong market conditions and an increase in tungsten demand.

Continued page 2

FOOTY SEASON 2023 KICKS OFF – Page 6&7

Kids branch out for new school term

STUDENTS returned to school on Apri 26 for the start of Term 2 at King Island District High School. Student well-being and school improvement continue to be priorities. It will be a busy term marked by extended learning program opportunities, and camps that complement core curriculum areas.

"Term 2 has started off very productively. Students have reconnected with staff and peers and have all engaged in their learning programs. We are looking forward to a busy and rewarding term," principal Denise Bryant said.

"A number of school camps will be held as well as the Speak Up Stay ChatTy schools' program, First Aid in Schools, NAIDOC Week and Walk Safely to a School Day. Reading and Student Well-being continue to be our School Improvement priorities.

"Timetabled opportunities for student engagement are the Grade 3-6 Enrichment program that includes Drama, Music, Sport, Digital Technologies, Stop Motion and Book Club.

"The offerings for Grades 7-10 are MDT, Cooking, Music, Art, Study and Outdoor Education. These programs complement our core curriculum areas of English, Maths, Science, History, Geography, Civics, Health and PE. The Garden program continues to be of interest to our students," Ms Bryant said.

At the start of the new Tasmanian government schools term, Minister for Education, Children and Youth, Roger Jaensch said, "Education is the most powerful tool we can give young people to take control of their future lives and opportunities. Active participation in learning is essential for all young people.

"Earlier this year, the 'Every school day matters' campaign launched and the start of Term 2 is a great time to remind our school communities about the importance of attending school every day."



KIDHS Grade 3 Enrichment Program urges kids to branch out, go out on a limb and find the fruit.

King Island Courier
A Beacon for the Community

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Miner at the starting line

From page 1

A significant stockpile of ore recovered from previous mine operations is sufficient to operate the plant at nameplate production for the first two months and is ready and available to be processed with the first sale of concentrate planned for June 2023.

The high-grade tungsten concentrate will be exported to G6M's major offtake partners in Europe and the US.

With the delivery of four CAT 777s during the quarter, pre-strip mining activities were significantly advanced, and the first order of blasting materials is scheduled for delivery in late May, prior to the commencement of blasting in early June.

The company acquired land adjacent to the mine to allow a larger volume of Ammonium Nitrate Emulsion (ANE) to be stored which the company says will negate any risk to mining operation from late delivery of ANE to King Island.

Construction activities for magazines are progressing and expected to be completed by the end of May in time to receive the first delivery of blasting materials.



Pre-stripping activities on the eastern side of Dolphin Pit.

A Memorandum of Understanding entered with Fortescue Future Industries Pty Ltd ("FFI"), enables the parties to explore opportunities for the potential development of a wind farm, hydrogen plant and fertiliser production plant by FFI.

Exploration drilling recommenced at the Investigator Prospect, located 6km west of the Dolphin Tungsten Mine, with assay results expected in early Q3.

Ammonium Paratungstate (APT) prices have remained stable for the past 12 months, with current prices US$320-$335 per mtu.

The company has $3.2 million in cash, and $5.4 million in undrawn debt facilities as of 31 March 2023 and $1.64 million was received after the quarter end from the Tasmanian State Government power supply grant, which is to be applied towards implementing a dedicated interim on-site power station and completing a feasibility study for the integration of renewable energy.

The Tailings Storage Facility is expected to be available to accept tailings in line for processing of the first ore in early May.

Ancillary mine infrastructure such as workshops, warehouse, fuel storage, water supply and mine equipment go-bay are near completion. The company anticipates site office administration building civils work will be completed before the end of June.

G6M said that the market conditions look strong for the remainder of 2023 with growth in demand expected to continue from the defence, construction, mining and energy sectors and supply continuing to look subdued with Dolphin being one of the only new significant suppliers entering the market in 2023.

Group 6 Metals announced to the Australian Stock Exchange a trading halt on Monday.

Last Monday, at the request of Group 6 Metals Ltd, it was placed in an ASX securities trading halt and yesterday the company announced a voluntary suspension in the trading of the company's ordinary shares to allow the company further time to complete a material capital raise in an orderly manner.

The company expects to make a further announcement on or before Wednesday 10 May.

Island's world of workers

A MAJOR Federal Government review released last week called for a complete rewrite of Australia's immigration system, with almost every visa category subject to change.

The review found the immigration system was "complex, inefficient and inflexible".

Working holiday makers (backpackers) come to King Island to work across many of our local businesses.

Currently, the island has people from Spain, Sri Lanka, The Netherlands, Taiwan, Germany, Scotland, Ireland, Indonesia, Japan, Argentina, France, Canada, India, Poland, Israel, and England.

They stay three to 12 months, sometimes longer if they extend their visa.

Working holiday visa holders can extend their visa for an additional year (up to three years maximum) if they do three months/six months of work in critical industries such as agriculture or mining and during Covid this was extended to hospitality in some regions too.



Backpackers mix with locals at the King Island Club. Front row, left to right: Hallie Kent, Indira Casto de Leon, Carlos Martin Carnal. Second row, left to right: Liang Chen, I-an Tsai, Ola Zwawiak. Third row, left to right: Oliver Brunsch, Rois Supriyono, Charles Nari. Fourth row, left to right: Michael Laskey, Leo Watkins and Shane Freeman.

They can be seen working on King Island in dairy and beef farms, cheese production, mining, and hospitality, but they can work in any industry if they choose to. There are between 30-50 backpackers on the island at any time.

Because of King Island's remoteness and because backpackers are often working and living with locals and other travellers, they will often form strong friendships and continue these friendships after they leave the island.

Some backpackers have formed partnerships, married, started families, and become Australian citizens and part of the King Island resident community.

There are more than 100 visa sub-classes, and the government says the system must be simplified, making it easier and faster for people to be processed. King Island is also home to Business and Investment program, Family Reunion, and temporary visa holders.

Home Affairs Minister Clare O'Neil said the system was not up to the task to solve the greatest labour shortage Australia has faced since World War II and last week told the National Press Club that administrative problems were "central" to Australia's immigration woes.

"We ask an overseas-trained nurse to pay up to $20,000 and wait up to 35 months to get their qualifications recognised and their visa granted," she said.

The changes include an immediate lift to the decade-old minimum wage threshold for skilled workers; the establishment of a pathway to permanency for about 17,000 temporary workers; tightening rules and more support for international graduates to help get into skilled employment; providing exploitation protections and removing bureaucratic delays and outdated occupation codes. The skilled list has not been added to since 2013 and does not reflect contemporary skills or changed skilled labour needs.

The government said the "points test" for skilled visas, which helps determine which applicants are most desirable for improved productivity, must be rewritten and "recalibrated."

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School role praise



King Island District School Prep students Bella Reed and Harrison Forrest hold Anzac Bears.

FOLLOWING ANZAC Day's commemoration, Vice President, King Island RSL Subbranch Gary Barker thanked KIDHS principal Denise Bryant, Jenny Holbrook, KIDHS staff and students for their support of the main service on Anzac Day.

Mr Barker acknowledged Grade 9 student Seth Bowling who was MC during the Main Service and Chase Osbourne and the other senior students who helped with the flags.

"Standing in front of a group of people is not an easy task and we thank Seth for his courage and performance. The involvement of the school is something RSL president Tom Shaw has been working on with the school for several years. Without the school's support, the [RSL] interaction with the next generation could not happen," he said.

Many on and off the island were unable to attend the Anzac Day commemorations.

King Island TV live-streamed the main service and messages were received from ex-islanders and relatives around the world. It will remain on YouTube so those who wish to watch or rewatch search - King Island TV.

Anzac Day addresses, page 9



Lunchtime for King Island Leos with Lions Linda Payne and Ricci Bishop in the Snodgrass Park barbeque and shelter.

Leos holiday help

GREAT work over the school holidays by our King Island Leos. One session at Snodgrass Park assisted residents by cleaning their units' windows and car washing and the second session involved moving rocks to define the new walking track at Netherby Bay. Both sessions were followed by a scrumptious picnic lunch.

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Time to hit the polls

VOTING for the Legislative Council Elections is Saturday 6 May. Booths are open between 8 a.m. to 6 p.m. In-person voting is at the Currie Town Hall, cnr. Meech & George St and at the Grassy Fire Station, 6 Ferntree Drive. There are four candidates and elected members will serve until the 2029 periodic elections and voting is compulsory.

If you are unable to vote in person on polling day, you may be eligible to vote early by one of these alternatives:

Pre-poll commenced runs until Friday 5 May. For pre-poll voting locations in Tasmania and interstate see tec.gov.au. There is a voting booth at Agfest.

If registered for Postal voting, you must record your vote before 6 pm on polling day, Saturday 6 May and TEC can receive returned postal votes until 10 am Tuesday 16 May.

Interstate and overseas voters can vote by phone during voting service hours call the TEC on +61 3 6208 8700 and select the 'interstate or overseas elector.' See tec.gov.au for detailed information.

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Royal event a jewel in broadcast crown



Newly minted King Charles III and Queen Consort Camilla.

GOD Save the King. This is not a plea for King Island (named after Philip Gidley King, third Governor of NSW), but it will be the Archbishop of Canterbury's final declaration at the King Charles III coronation Saturday, May 6.

Whether pro-Republic or Monarchist, the first British coronation in 70 years and in most people's lives, will be watched by Australians, on TV, or via global multiple platforms that are streaming the live coverage. If you're watching from Australia, you can expect the action to kick off on Saturday at 5 pm AEST on ABC and ABC News, Foxtel, UK streaming services and 7plus channel.

The scaled-down, simplified, one-hour ceremony in Westminster Abbey, will have British pageantry and ritual, in its most regal, opulent form. One of the more controversial changes is that members of the public in Britain and its territories, which include Australian audiences, will be invited to swear allegiance to the King, out loud, in the first-ever Homage of the People. This has attracted widespread criticism as Australia plans a referendum on the monarchy.

There will be a gold coach, that's only used on this type of royal occasion, fanfare played by herald trumpeters, ceremonial and celebratory flags adorning the Abbey and roadways.

The coronation is a religious service. King Charles III is head of the Church of England (Anglican) and the supreme governor. It is expected that other faith prayers will be incorporated for the first time, and he will take an oath to defend Christianity.

The ceremony has retained a similar structure for over 1,000 years. While there has been some modernisation, the rituals such as anointing with Jerusalem made and blessed oils, the King's blessing, oaths, orbs, sceptres, regalia and the crowning of King Charles and Queen Camilla remain.

It is expected that the coronation will be the most-watched event in Australian history exceeding Princess Diana's funeral in 1997 (8m viewers) and Queen Elizabeth II's funeral (metro and regional 5.17m) and that does not include viewers using other technologies. In the UK Republic UKspokesperson Graham Smith said that analysis suggests global viewing figures are expected to be between one 100 and 300 million or more, which he says will mean 7.7bn and 7.8bn will "ignore the event."King Charles is Australia's head of state and his representative, His Excellency General the Honourable David Hurley AC DSC (Retd) Governor-General of the Commonwealth of Australia, will be attending the coronation and as patron of the Keep Australia Beautiful organisation will be on King Island on May 19 to present this year's National Awards.

Let them eat quiche. page 10

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Footy kicks off under v

KING ISLAND FOOTBALL ASSOCIATION

WE were blessed with a blazin' hot Autumn Saturday to kick off the 2023 KIFA season.

This was a grand final replay with Grassy at home to North with a packed crowd around the ground. Both teams looked to have a fairly solid card with some fresh faces on both sides playing for the first time.

North got the first clearance, but it was quickly smothered and Grassy gained the first forward entry at the Netball court end and an early goal to Brandon Blomfield. Early on it looked a bit like an under 12's match with a large pack following the ball as it ping-ponged across the field.

North found their first through Ned Hunter who got off a quick kick from the centre which went the full measure for a nice goal. A second comes shortly after through Justin Summers.

Some good positioning and nice defensive marks came from both sides with most of the play in and around the centre until Jye Summers awarded a free and a 50-metre penalty for North's third.

Grassy found their second through Tyler Rhodes kicking off the flank. Taylor Cook marked strongly in defence but couldn't get it out and Grassy found their third to bring the score line back to a point.

Grassy saw two rushed behinds go through before the term is out and went into quarter-time with a two-point lead. Momentum has swung a few times and has been a determining factor in the first quarter.

Brandon is making a habit of opening goals and opened the second with a goal for Grassy, followed quickly by a Justin Summers point. North had some momentum at their end and new coach Dale Ellis goals from the pocket, shortly followed by a Ned goal from a 50-metre free.

North scored another goal through Justin Summers again - are we in the matrix because the second quarter looks spookily like the first quarter.

The score stays close when Tristan scored on the run from the pocket and Grassy gained some momentum back. The play opened more in the second quarter, but things became a little woolly when Jeremy Summers (Jez) pants' tackled Craig Constable's shorts down to his knees, who played on regardless, albeit with more of a shuffle.

Tristan Forrest took a shot on goal from 40 out close to halftime, which falls a bit short with Tyler Rhodes nearly taking a nice grab on the line, but it is rushed through for a behind. Grassy entered the halftime break 8 points up having the momentum in the final part of the second quarter, however, both teams look to be evenly matched.

Grassy is the first to go forward in the third quarter and Tyler Rhodes nabbed a behind from the north pocket. Jackson Taylor intercepted a kick out and delivered it to Jacob Flood for a point.

It's back and forth in the Grassy forward line until Charlie Warner intercepted to centre it, aimed for Jackson Taylor who ran to an open goal to succeed in hitting the post for a point.

Jye Summers quickly took the ball out of a throw-in and through to Taylor Cook who ran out of the Grassy backline with a paddock ahead of him but passed off into a contested ball and Grassy found their way forward again. Most of the play of the third quarter was in the Grassy forward area and when North found their opportunities couldn't get clean hands and looked a little lost. North's new recruit Luke Graham got amongst the contested and found a goal at the Netherby Road end which marked a momentum switch and North began to see more play in their forward line but struggled to take full advantage.

Alex Goldsmith and Tristan Forrest showed a good bit of athleticism in the centre for both sides and are both rewarded with goals. Tyler Hudson took a contested mark against Dale Ellis in North's forward line, and Grassy used it to enter their forward line and had a shot on goal via Tyler Rhodes 40 out.

He played on through the mark and found the goal. Grassy finished the quarter with a Tyler Rhodes pass-off to Freddy Tatawaqa for a nice goal to see them 10 points up at lemons.

The final quarter started with Umpire Mark Enniss flattened on the centre square, but he was able to get up and the game continued. Shortly into the fourth quarter, Grassy requests a player number on the ground count and the game is stopped for appraisal.

It is discovered that North indeed had an extra number on the ground and is penalised a free kick awarded to Dale Reed in the centre, who doesn't muck around and thumped it through the goalposts.

A battle of the big rig's Jye Summers v Dale Reed in the Grassy goal square competed for an incoming ball, with a stalemate ensuing and eventually, the ball spills out for a behind.

Accuracy has gone begging for both sides today, which we'll chalk up to round-one jitters and a lack of match-day practice for the season opener.

Grassy threatened to run away with the quarter, pre-season fitness tested and the play opened up with a lot less running and a lot more passing off short kicks and fumbles. Tyler Rhodes lined up again from a free and banged it through. Grassy recruit Samuel Reeves is solid, in the back line and pushed the ball up into the centre on a regular basis.

The afternoon cooled off with a little autumn chill coming in on the breeze, but the sun was still bright and the few clouds around were not enough to be threatening. Jackson Taylor got the ball up straight to Tristan Forrest who sent it forward for another goal. Grassy took a commanding lead of 35 points. Grassy's 'fine wine' Arnie Stellmaker is on the field debuting his 150th season with Grassy Seniors.

The man doesn't age.

Ned still had some legs left but so did Jackson Taylor and it was a solid tussle between those two. Craig Constable's shorts gave up and were around his knees yet again.

The final siren went after Grassy put on a convincing final quarter, although with 19 behinds they might be on target practice this week while they leave North with a few things to think about heading into their bye round next week.



ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Thursday 18 May 2023

Location: King Island Town Hall

Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

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A big crowd attended the season opener and replay of last year's grand final. Those not in the cars circling the ground enjoyed sitting on 'the hill' in the sun.

ABOVE: The big men fly in the season opener Grassy v North. BELOW: 87 years of North with one or more Summers playing. Max Summers (Snr) with Deputy Mayor Vernon Philbey (whose blood runs Currie FC red and black.)



FINAL SCORES

KING ISLAND FOOTBALL ASSOCIATION SCORES
29-04-2023

Juniors
Grassy .....North
2-0-12.....6-4-40
5-3-33 9-5-59
7-4-46 15-8-98
10-7-67 18-13-121

Grassy
Goals: Cruz Osbourne 3, X. Berkin 2, L. West 2, R. Payne, R. Esquerra, C. Harding
Best: R. Esquerra, X. Berkin, R. Payne, Chase Osbourne, L. West, H. Harvey, B. Smith

North
Goals: H. Lincoln 7, A. Smith 4, L. Reeman 4, G. Freeman, S. Bell, M. Button
Best: H. Johnson, H. Lincoln, A. Smith, L. Reeman, O. Martin, M, Button

Seniors
Grassy ..... North
3-2-20 3-0-18
6-9-45 6-1-37
8-13-61 8-4-51
12-19-91 8-8-56

Grassy
Goals: T. Rhodes 4, B. Blomfield, 3, D. Reed 2, T. Forrest 2, F. Tatawaqa
Best: C. Warner, R. Frosi, J. Taylor, T. Forrest, S. Reeves, B. Rhodes, T. Hudson
North
Goals: Justin Summers 2, N. Hunter 2, Jye Summers, D. Ellis, L. Graham, A. Goldsmith
Best: N. Hunter, G. Wright, L. Graham, Justin Summers, K. Fanning, A. Goldsmith

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Footy faces dark days





Vincent Trevor (Ted) Ranson, is one of the greatest full backs in Tasmanian football history. Inducted into the AFL Tasmania Hall of Fame 2005.

KING ISLAND FOOTBALL ASSOCIATION
TROY SMITH

WITH the commencement of the King Island Football season 2023, KIFA resumes the history of King Island football.

After the struggles with low player numbers and poor crowds the game had endured in the previous seasons the great Australian game was under serious threat in the 1930s.

The KIFA for a short time was declared defunct by the KIFA president Mr L C Ross a brave move indeed by a man clearly immersed in the best interest of King Island football. A shakeup was badly needed. To quote the King Island news of the day, "For some years interest in football has languished, engendered in the first place perhaps by unpleasantness which fortunately has now practically ceased, and also by the selection of players."

The emphasis was now back on district football, which given the previous dramas was not a forward step. A public meeting brought the supporters out and a motion to reform the KIFA was carried.

Mr L Birch became the president of the KIFA and Mr Thomas Hogarth, the KIFA secretary There was some consternation over monies that in the circumstance seemed trivial and ill-advised. Mr R (Coad) Morrison was the central umpire for the season.

The North, Currie and Loorana clubs all held poorly attended annual meetings and despite the bravado, it wasn't certain a roster would even be established. The Loorana FC had a new secretary, Mr Stanley Hicks and even better a new highly credentialed captain/player Mr V T (Ted or Trevor) Ranson from the Launceston football club.

Ern Morrison was reappointed at Currie FC and Len Morrison, captain, and a new secretary in Mr J Stewart. After an extraordinary meeting North reformed with a new executive and a 13-person committee with Fred Summers as president, and Messrs. J Keating and R Quinn as joint secretaries. Mr Ashleigh Last was clearly a stalwart of the club and the new captain.

The Summers name would flourish for the North football club over the next 87 years and is still stronger than ever today! The North club passed a motion that all football would be played in Currie, saving travel and costs.

Football resumed on May 9, 1936. with Currie meeting Loorana. Currie convincingly won by 42 points in great weather with a smallish crowd in attendance.

North beat Loorana by 2 points and then beat Currie by 16 points. Loorana opened their account with a 38-point victory over Currie with Ted Ranson starting to hit his straps. Loorana then trounced North by 57 points with Ron Clemons joining the KIFA most goals and record with 7 goals. A joint carnival and ball aimed to lift interest in the clubs was held by the Currie and Loorana football clubs at the town hall and was termed an unqualified success. The door raised £12 pounds and revigorated the game.

The weekly results see-sawed throughout the season. The weather played its weekly role in the island game and caused game times to be cut and players forced from the oval. North wanted the semi-final to be played at Yambacoona after not wanting home games and the request was denied.

Ted Ranson backed up his scores of 6 goals in games for Loorana with a 7-goal game and it looked like he was nudging towards breaking the long-held 7 goals game record.

The first semi-final started, and the players were driven from the field by "torrents of rain." The captains conferred and it was decided to take to the field for North to kick the 1 point needed to make the match a draw rather than replay. This caught the ire of the KIFA who promptly fined the two clubs 2 pounds each for taking matters into their own hands.

The semi-final was replayed the following week in good conditions but North only had 16 men and lost Ashleigh Last and Terry McHugh who were two of their best players. Despite this, North worked hard and to an extent was kept in the match by Currie's inaccuracy. Currie, however, ran an easy 30 points winner on the scoreboard despite the tough match. Currie 7-19-61 d North 4-7-31. Bob Keating was again picked as one of the best players on the ground followed by Phil Farrell, Don, Len & Coad Morrison. Phil Farrell kicked 3 goals, Bob Keating 3 & Don Morrison 1. North was best served by Cyril Williams, Ern Youl, Ron Stillman, Anthony McHugh and Mick Scott. Goals were kicked by Max McHugh, Ern Youl, Anthony McHugh & Ron Stillman.

The Grand Final was sunny with a fresh south-easterly. The gate was said to be by far the best of the season and the sense was that Loorana was in with a real shot of taking the cup home.

The game was "a torrid tight affair with congested play being a feature." Currie booted 5 in the opening quarter to lead by 28 points at the first change. Ted Ranson inspired Loorana and kicked 5 goals for the quarter. Aubrey Soden and Ron Clemons kicked the others whilst Currie were kept in the game by Phil Farrell, Jim Allen, and Ted Curbishley. Loorana booted 7 goals 8 points to lead at the main break by 14 points and looked the goods.

Good team play and goals to William Groom, Phil Farrell, R Morrison, and L Morrison had Currie back in the lead at lemons by 24 points. The final quarter was a very willing one. Don Morrison and Bob Keating were conspicuous, but the breeze was more useful at the beginning of the game with Loorana having 12 scoring shots. With 5 minutes to go Loorana were now one point ahead. Bob Thompson, Jack Marshall and the Morrisons were doing their bit for Currie, but Ted Ranson and Ron Clemons were the match winners with 2 important goals each in the final run home.

The Loorana football club had won their first premiership by 11 points! Loorana 13-15-93 d Currie 12-10-82 in a wonderful contest. Best on the ground was Ted Ranson with 10 goals, Jack Kain, J Meaghan, Ron Clemons, Dick Cooper, and Aubrey Soden were the pick of the Loorana team with many others pitching in. Goals kicked by; T Ranson 10, Ron Clemons 2, & Charlie Lott 1. Currie's goals came courtesy of Phil Farrell 4, William Groom 3, R Morrison 1, Bob Keating & Len Morrison.

The Loorana club held a celebration dinner where a specially inscribed match ball was presented to their captain Ranson. Presentations were also made to the best junior player; Henry Youl, the most unselfish; J Meaghan, the most improved; Len Barnes and the most improved junior player Jim Graham. Central umpire Albert Kyatt commented that the KIFA should endeavour to secure 4 teams in a 14-a-side format in the next season.

The KIFA held a wind-up dance which was postponed several times due to the Scarlett Fever outbreak. The pennant was presented to Loorana and Mr Phil Farrell named the CFC best and fairest. No mention was made of KIFA best and fairest or goal kickers. Loorana remains the only club outside of the big 3 (North, Currie and Grassy) to have won a KIFA premiership. Ron Clemons (LFC) booted 28 goals, Phil Farrell (CFC) booted 18 for the year. North's best were Max McHugh, Terry McHugh, and R Quinn. R Quinn had 8 confirmed goals leading by one confirmed in the home and away games but in one final round game 2 goals were attributed simply to 'McHugh' and North had 4 of the McHughs in the ranks, so we don't know at this point whom to attribute those goals.

In 1936, Loorana captain V T (Ted) Ranson had booted a then-record 45 goals in the home and away games and a record 10 goals in the Grand Final to be the first KIFA player to kick 10 goals in a match and over 50 goals (55) in a season. Ted averaged 5 goals per game, which for that time are great stats. He was clearly the best on the ground in the Grand Final.

Ted Ranson has a great football resume and is amongst the most accomplished players to have played King Island football. All be it for one season only. He played with Launceston in the NTFL playing in 5 premierships and represented Tasmania in 1933. He played for St Kilda in 1934 and then went back to Tasmania in 1937 and won the Launceston best and fairest. Ted captain coached Launceston to a premiership in 1945. By 1948 he was coaching Scottsdale and he umpired in the NTFL for multiple seasons. In 2003, out of 18000 who had played football in Tasmania over the previous 100 years, Ranson was nominated for the Tasmanian Team of the Century and was inducted into the AFL Tasmania Hall of Fame in 2005.



The Anzac Day addresses



KIDHS Grade 9 student Seth Bowling MC for the ANZAC Day 2023 Main Service with RSL King Island Subbranch president Tom Shaw.

ANZAC DAY ADDRESS PRESIDENT KING ISLAND RSL SUBBRANCH - THOMAS SHAW

ON Anzac Day we are drawn to memorials, marches, to moments of reflection – both in groups and privately.

We remember those who have served, those who have sacrificed and the contribution they have made to our country.

On one hand, we do not need to question 'why' we do this. It is obvious – to honour those who have served and continue to serve our nation, and to acknowledge the debt we will always owe them.

On the other hand, considering why we pause to reflect and remember tells us much about who we were, who we are and who we aspire to be.

This Year marks 50 years since the end of Australia's involvement In The Vietnam War - a War in which Sixty-one thousand Australian men and women served. Five hundred and twenty-one were killed. Two thousand and fifty were wounded.

This morning at the dawn Service I had the honour to read out and Pay Tribute to the 35 King islanders that served in the Vietnam War.

Although I wasn't even born when the names, I read out served, it is clear to see a connection between the way they speak of service, and the way veterans of my era speak of service. There is mutual respect, a bond, and a selfless dedication to proudly serve our country when required.

I reflected on the continuation of the Anzac legacy and the characteristics we attribute to arise from it – mateship, courage, sacrifice and endurance. I asked myself, are similar examples readily identifiable across our military history? Do the characteristics still matter? I am firmly of the opinion that the answer to both questions is: Yes!

To the first question: pick a conflict, operation or mission and you'll be able to find similar examples.

We saw it in The Gallipoli landings, Beersheba, The trenches of the western front, Tobruk, Kokoda, Kapyong, Long Tan, and the dust of Oruzgan.

Mateship – that's a key part of the Anzac legacy.

To the second of my questions – do these characteristics still matter?

They do.

We see them in those still serving. They have inherited the Anzac legacy and, through their service, have added to it and will hand it forward.

We are proud of them, and we will always be there for them. It is critical that we continue to look after our veterans – caring for mates is also part of the Anzac legacy. To that end, we recognise the support of their families and their contribution.

These characteristics are not confined to our people in uniform. They are evident today in the actions of [every day] Australians. Countless acts of bravery have occurred, most anchored in mateship in its many forms and exemplified by courage and endurance.

Who we were - Many families on this Island, with its strong history in enlistment and soldier settlers have these values ingrained in them and all have their own story.

In the sum of the stories, we see common characteristics and values.

We see a continuous line from diggers who landed at Anzac Cove, through to those who served in the Second World War, in Korea, Vietnam, on peacekeeping operations around the world and more recently in Iraq and Afghanistan.

Who we are – we see the Anzac legacy in today's serving men and women, their families and, indeed, writ large in the island community around us.

Those common characteristics and values – mateship, endurance, courage and sacrifice – are not unique to military service. Our forebears took them into uniform. But their service, experiences and sacrifices have forever embedded them in our nation's DNA.

And, who we aspire to be – if we learn from the Anzac legacy and we continue to live up to it, history tells us that we can overcome any challenge.

The Anzac legacy is not reflected in a single individual or a single event. Instead, it is the sum of thousands of stories. Of ordinary Australians who, when given a job to do, got it done, did it in a way that made us proud and looked after each other during and after.

Finally, the characteristics that we take from the Anzac legacy to define us – mateship, endurance, courage and sacrifice – are inherent in Australia. They always have been. They've been strengthened and reinforced in conflict and on peacekeeping operations, but they have always been at our core.

We shouldn't shy away from these characteristics over any concern that they are viewed as 'derogatory' – they are real in us. They speak to our past, our present and our future; To who we were, who we are and who we aspire to be. And that should make us all optimistic for our future. LEST WE FORGET

VICE PRESIDENT, KING ISLAND RSL SUBBRANCH GARY BARKER

I WAS 19 in 1970 when I unwittingly volunteered for National Service and, while I trained to go there, the December 1972 Federal Election result confirmed the end of Australia's involvement.

Over the next 36 years, I worked with Vietnam Veterans, and many remain as friends. Early on, like many, I did not recognise their pain resulting from a nation blaming them for the decisions of politicians, along with massive national discontent.

This year commemorates 50 years since the end of Australia's involvement – in my opinion the most divisive in the nation's history.

Australia entered the war in July 1962 and ended in January 1973. Almost 60,000 Australians, Navy, Army and Air Force personnel, served in Vietnam. 521 died and over 3000 were wounded. The war saw the reintroduction of conscription and National Service has become synonymous with Vietnam.

Between 1965 and 1972, just over 800 000 twenty-year-old males registered for National Service, and nearly 64 000 were called up for service in the Army. Approximately one in four National Servicemen went to Vietnam, also around a quarter of the total force number. Their toll was 200 killed and 1279 wounded.

This morning I will be speaking about the involvement of a King Islander who was a National Serviceman. These are his memories.

"I was born in the Cottage Hospital on 23 February 1945 and my parents were Joe and Jean Lynch. My first name is Hugh, but I have always been called John. I grew up on the family dairy farm at Loorana, along with Brenda, Jim, Alma and Faye.

"I caught the school bus each day to the Area School in Currie, but when I was in Grade 7 and just turned 13, I went milking cows. I was not fussed about doing National Service and my number came up in the first ballot of 1965 along with Geoff Smith and Henry Bennett. The three of us were flown out on an Ansett DC3 to Launceston for our medical; Henry was pretty sick, and we knew he wouldn't get in.

"Geoff and I passed the tests and were called up in the second half of 1965. After 12 weeks or so in the freezing cold of Pucka, I was sent to the School of Infantry in Ingleburn near Sydney, to be trained as a rifleman. Later I was told, 'You're off to Vietnam', so I came home for a quick leave and arrived in Nui Dat on 19 November 1966. It didn't worry me about going there as there were a few advantages.

"Nui Dat was where the Australian Task Force was located, and I was put in the Quartermaster's Store. So, I ended up with a cushy job and only had to go out on patrol once. Plus, the old Quartermaster was a pretty good bloke. We were near the hospital, and I can still vividly remember the Huey choppers bringing the wounded in.

"For the ten months I was there, the only other King Islander I met was 'Spratty'. Wayne was in a platoon in one of the battalions on the edge of the base. Barry Misson and Alan Wilson, my cousins born on King Island, also served in Vietnam.

"When my time was up in August 1967 I was sent back to Australia and discharged. One day in a war zone and a few days later back home."

John's final words of 'one day in a war zone and a few days later back home' was a situation that led many ex-service personnel to break down. They could not readily adapt back into civilian life, and when they were eventually helped it was too late for many of them.

Many RSL Subbranches refused to let Vietnam Veterans join and, in some cases, barred their entry. King Island is not immune from this criticism as until 2021 there was only one name on a Board – that of John Lynch.

As a Sub-branch, we have stepped up and we remember the 35 Islanders listed on our Vietnam Honour Board in the RSL Club rooms.

One of the events being planned in commemoration of the 50th anniversary of the end of Australia's involvement in the Vietnam War is a Vigil to be held at gravesites and memorials throughout Australia and overseas on 3 August 2023. We do not believe any Vietnam Veterans have graves here, but we know of islanders who have relatives resting elsewhere. We will commemorate this special occasion.

The 35 Vietnam Veterans on the King Island honour board:

Serving in the Royal Australian Navy

HMAS Derwent - Acting Leading Writer Garry Bourke and Chief Petty Officer Writer Frederick Curbishley.

HMAS Parramatta, and HMAS Yarra, Able seaman Radar Plotter Peter Banfield.

HMAS Melbourne - Able Seaman John Hudson.

HMAS Sydney and HMAS Yarra - Leading Tactical Operator John Curbishley.

HMAS Sydney - Junior Recruit Engineering Mechanic Richard Gale and Engineering Mechanic Timothy Robertson.

HMAS Vampire - Engineering Mechanic Malcolm Cross.

HMAS Vampire and HMAS Yarra -Leading Airman Meteorological Observer Noel McKay.

HMAS Vendetta, HMAS Yarra and HMAS Vampire - Able Seaman Quartermaster Gunner Alan Wilson.

Serving with the Australian Army

Headquarters First Australian Task Force - Colonel Ian Barr and Private Hugh Lynch.

Royal Regiment of Australian Artillery: 1st Field Regiment - Sergeant Clifford Woodard.

12th Field Regiment - Captain David Ezzy.

1 Field Squadron, Royal Australian Engineers - Corporal Harold Bell and Sappers Peter Birch, George Lynch and Anthony Marroitt.

110 Signal Squadron, Royal Australian Corps of Signals - Signalman Barry Misson. and Greg Kruska

709 Signal Troop - Signalman Stan Misson

Royal Australian Regiment: First Battalion - Private Richard O'Shea.

Third Battalion - Lance Corporal Colin Knowles and Private Ross Murie. Fourth Battalion -Privates Karl Curtis and Howard Mariom.

Fifth Battalion - Privates Terence Leo and Michael Massie.

Seventh and First Battalion - Lance Corporal Wayne Spratt.

Ninth Battalion - Private Maurice Ladlow.

5 Company Royal Australian Army Service Corps - Private Robin Fairchild.

1 Field Squadron Workshop, Royal Australian Electrical and Mechanical Engineers - Craftsman James Saddington.

Serving in the Royal Australian Air Force

Number 2 and 9 Squadrons - Leading Aircraftman William Colgrave.

Number 2 and 37 Squadron - Pilot Officer Paul Goodwin.

Number 1 Operational Support Unit - Leading Aircraftman Brian Gayle.

21 veterans were born on King Island, the oldest in 1920, the youngest in 1950; 10 served in the Navy; 22 in the Army; three in the Air Force; and 10 were National Servicemen.

I would also like to acknowledge two soldiers who died as a result of the Vietnam War, and although they never lived here, their relatives came here. They are Sapper Peter Penneyston (1 Field Squadron, Royal Australian Engineers) brother of Joy Crack, and Trooper Russell Copeman (3rd Special Air Service Squadron). His parents were the late Jim and Pearl Copeman. In addition, Captain Norman Hunter, the father of Kathleen, was attached to an Armoured Squadron.

Let them eat quiche

KING Charles III and Queen Camilla last week announced a vegetarian quiche as the official coronation dish.
It is a dish fit for Royalists, Republicans – or even Real Men. Hang your crown on a convenient hook and get cooking ... if you can afford the ingredients



DEVISED by a Buckingham Palace chef and released across the Palace's official social media platforms with a 'how to make' video, timed to coincide with King Charles III and Queen Camilla's coronation on May 6. The idea is that people will cook it at home and it's sharable. The recipe features a traditional shortcrust pastry with added lard, encasing a cream-and-egg filling of spinach, broad beans, and cheddar, spiked with tarragon.

The recipe is not without criticism as it was initially said to be cost-effective in an anti-monarchy swinging UK. People are facing a cost-of-living crisis and many ingredients are out of the price range for English commoners. The global bird flu (Avian influenza H5N1) pandemic has wiped out millions of birds in the UK, and egg prices skyrocketed to become a luxury item, as have cream and fresh vegetables.

A quiche is not just a quiche when it's a Royal Quiche and when it's attached to an event like a coronation, however as it has the 'Royal' stamp and its creation was personally requested by their Majesties, it is infused with symbolism and 'fit for a king.'

Eggs are often associated with new beginnings and fertility, rebirth, and renewal. Cheese is linked to nourishment, comfort, and abundance. It also symbolises tradition and cultural heritage and cream represents richness, indulgence, and luxury. It is sometimes associated with femininity and sensuality.

Historically broad beans represented fertility, abundance, and hope, as they produce many seeds. They are transformation or growth, and sustenance through difficult times.

In ancient Greece and Egypt, broad beans were associated with the souls of the dead and were sometimes used as a ballot in elections or to choose a sacrificial victim. They were placed in Pharoah's tombs to provide sustenance to the soul in the afterlife. Persian wedding rituals (the coronation rituals include a symbolic wedding) use broad beans as a message of fertility and unity.

Spinach is symbolic of health, vitality, strength, regeneration, and rejuvenation. Tarragon is an herb that is often found in French cuisine, is associated with refinement, and in traditional medicine, in which the King has an active interest, is used for healing and wellness. In some cultures, it symbolises creativity and inspiration and it was an ingredient in Medieval love spells and potions, and it is traditionally incorporated in food and drink at Russian celebrations and special events.

Like Queen Elizabeth's 1953 coronation chicken, it reveals multiculturalism in the kitchen, King Charles's personal connection to farm-grown produce, and historical lineage and symbolically reflects coronation ceremonial elements.

Who would've thought that a quiche could mean so much more than simply being an eggy cheesy tart?

Recipe substitutes can easily be made - store-bought shortcrust pastry, vegan, gluten and dairy-free alternatives, herbs like basil or parsley and peas instead of broad beans. The quiche can be served hot or cold.

CORONATION QUICHE

x1 20cm Flan Tin
Serves 6

INGREDIENTS

Pastry
125g plain flour
Pinch of salt
25g cold butter, diced.
25g lard (or substitute with margarine or butter)
2 tablespoons milk
Or 1 x 250g block of ready-made shortcrust pastry

Filling
125ml milk
175ml double cream
2 medium eggs
1 tablespoon chopped fresh tarragon,
Salt and pepper
100g grated cheddar cheese,
180g cooked spinach, lightly chopped.
60g cooked broad beans or soya beans.

METHOD

To make the pastry…

Sieve the flour and salt into a bowl; add the fats and rub the mixture together using your fingertips until you get a sandy, breadcrumb-like texture.

Add the milk a little at a time and bring the ingredients together into a dough.

Cover and allow to rest in the fridge for 30-45 minutes.

Lightly flour the work surface and roll out the pastry to a circle a little larger than the top of the tin and approximately 5mm thick.

Line the tin with the pastry, taking care not to have any holes or the mixture could leak. Cover and rest for a further 30 minutes in the fridge.

Preheat the oven to 190°C.

Line the pastry case with greaseproof paper, add baking beans and bake blind for 15 minutes, before removing the greaseproof paper and baking beans.

Reduce the oven temperature to 160°C.

Beat together the milk, cream, eggs, herbs, and seasoning.

Scatter 1/2 of the grated cheese in the blind-baked base, top with the chopped spinach and beans and herbs, then pour over the liquid mixture.

If required gently give the mixture a delicate stir to ensure the filling is evenly dispersed but be careful not to damage the pastry case.

Sprinkle over the remaining cheese. Place into the oven and bake for 20-25 minutes until set and lightly golden.

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King Island Courier
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Golf

Barnes is champ again

BUGGY

KING Island Golf Club Champion for 2023 is Tim Barnes, in a superb final round of three under the card 69.

Tim's back-to-back championship win is truly deserved. His only challenger was young Sukma Bowling and his final round of 75 was a good effort.

The shot of the day belonged to Captain Chris Richards – a hole-in-one on the iconic par three third hole.

In absolutely perfect conditions 24 players turned up for the final round of the annual championship.

Some excellent scores were recorded with Tim Barnes taking out the nett result 68 nett. Pud Watts runner-up with 69 nett. Other good scores were Conner Rush 70 nett and Chris Richards 71 nett.

Nearest the Pin Chris Richards hole in one
18th Brendan Strickland

FINAL RESULTS

A Grade
Tim Barnes 217
Sukma Bowling 234
B Grade
James Jakowenko 258
Brendan Strickland 267
C Grade
Lance Anderson 279
Greg Barratt 290

NETT WINNERS

Tim Barnes 214
Lance Anderson 216

AROUND THE TRAPS

A couple of seasoned golfers performed some incredible shots. According to a couple of young guns Rod Graham needs help or religion. A moose which included 6 shot putts on one hole. Rod reckons playing with them puts him off his game because they are so good. Adam Hely, to avoid the water, on the around-the-bay 5th hole, performed a safety shot. His drive ended up at right angles over the fourth green, over the dam, and in the rough. Never has anyone seen such a shot on that hole and he recorded a 5 on the par 4.

NEXT WEEK

A single stableford Cape Wickham sponsored 18-hole event.



Golf Captain Cliff Richards celebrates his hole-in-one with King Island Golf Club Champion 2023 Tim Barnes.

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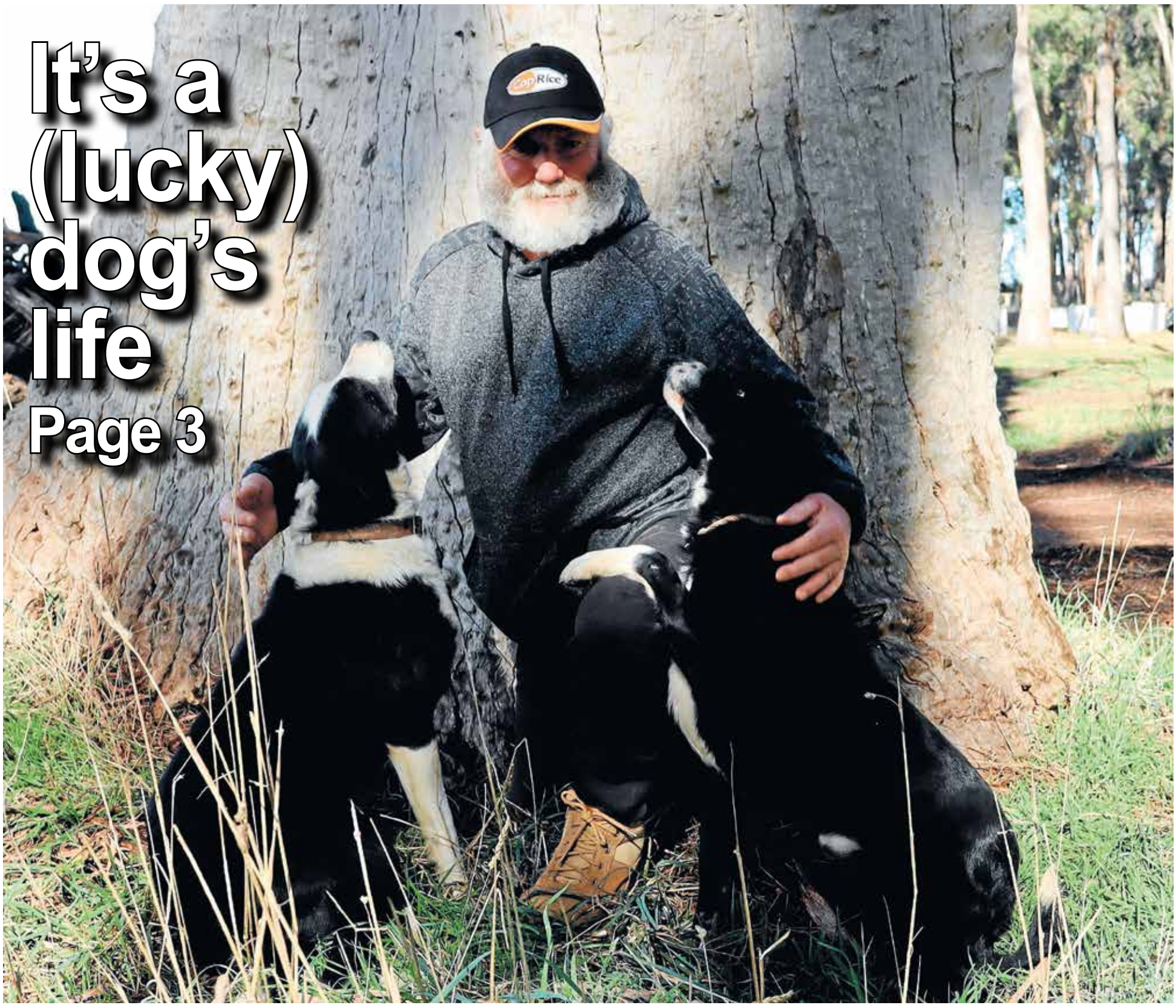
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A Beacon for the Community

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It's a (lucky) dog's life

Page 3

King Island beef farmer and dog trialler John Bramich with his dogs Snake, left, and Tiger.

LANDSLIDE VOTE RETURNS RUTH

A PLEDGE to represent King Island's interests in Parliament has seen independent Murchison MLC Ruth Forrest returned with a record vote.

In the Upper House elections at the weekend Ms Forrest was elected for a fourth term and her record vote puts her in the history books.

"I'm so deeply grateful to the whole electorate, but particularly the people of King Island," she said.

Historic win: Page 2

GRASSY THE TEAM TO BEAT – Page 6&7

Miner cashed up for production

MINER Group 6 Metals has raised about $27m equity and $3m in underwriting for a Share Purchase Plan to raise a minimum of $30 million, providing the runway to progress operations towards positive cash flow.

In a statement to the Australian Stock Exchange, the company said, "Funds were raised at $0.14c per share, representing a 15.2% discount to the last traded price on 28 April 2023 and a 16.6% discount to the five-day VWAP.

The placement received strong support from major shareholders, with the company's top four shareholders committing to subscribe for 69% (about $21m) of the total raising.

"G6M is also embarking on a partially underwritten Share Purchase Plan to allow existing eligible shareholders to participate on the same terms to raise up to an additional $5 million, subject to shareholder approval. Eligible shareholders can subscribe for up to $50,000 of new shares in the SPP without incurring brokerage or transaction costs.

"Proceeds from the Placement and SPP will be used to progress construction, commissioning and ramp-up towards steady state production at the Dolphin Tungsten Mine ahead of the first concentrate shipment planned for June 2023.

"Participants in the Placement and SPP will receive two free options for every three new shares subscribed for, with an exercise price of $0.21 and an expiration date of 30 June 2025.

"MD and CEO Keith McKnight, Chairman Johann Jacobs and Executive Director Chris Ellis are to participate in the Placement, subject to shareholder approval."

G6M managing director and CEO, Keith McKnight, said: "Securing the backing of our existing and new investors, who have participated in this minimum $30m equity raise, assists the company in fulfilling the commitment to recommence tungsten production at the Dolphin Mine.

"We are grateful for the commitments from investors, which underscores the progress achieved at the project and its imminent restart of operations. We also appreciate the ongoing support of our major shareholders who subscribed for the majority of this raising."

"As we move into the production phase at Dolphin, this equity raising provides a funding runway to progress operations through to positive cash flow at a critical time.

Anatomy of a modern mine, page 12

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A Beacon for the Community

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Ruth Forrest enjoys a democracy sausage during Murchison Legislative Council voting day and is ready for her next six-year term.

Upper House historic win

INDEPENDENT MLC Ruth Forrest had a massive win last weekend in the Upper House elections to retain the seat of Murchison.

It will be her fourth term and her record vote puts her into the history books.

The indications of how big Ms Forrest's win over her three challengers would be emerged not long after counting got under way.

With postal votes still to be finalised after May 16, Ms Forrest's Saturday night at the close of counting 71.89% against three other candidates return in Murchison beat the previous record of Peter McKay in 1976 with 66.4% of the vote.

The King Island vote reinforced her standing in the island community with 77.2% of the vote.

The King Island result indicates her ongoing, relentless advocacy on behalf of the island in parliament.

It also indicates her understanding of the issues that impact the island as a whole and at the individual level.

"I'm so deeply grateful to the whole electorate, but particularly the people of King Island who have shown me enormous support," Ms Forrest said.

"I could say over 75 per cent of the vote on King Island gave me number one.

"That is so amazing and so wonderful.

"I really appreciate the support of the island.

"I will continue to serve King Island as I've tried to over the last 18 years – and even more so, particularly as I get even more familiar with the actual circumstances that continue to emerge on King Island.

"The challenges come up, almost on a regular basis at the moment.

"It is a record-breaking win and I'm really excited about that.

"But that was across the whole region, not just King Island."

Ms Forrest received 573 first preference votes out of 742 formal votes (43 informal votes).

She said that face-to-face interaction, supported by technology, in any electorate, not only King Island was important.

"[Murchison] is the largest, if not the largest geographic electorate. It does take an effort to get out and about. It's not cheap

"As an elected member, you do get funding, you get a vehicle so you can drive, and obviously flying to King Island… you must, you must spend time in the regions.

"You can't just pop over and come back on the same day and think you're going to meet enough people to actually really get a sense of what's happening on the island. You've got to be, available to people."

During her campaign and meeting with people across the electorate, Ms Forrest said there were common and key issues to those faced by King Island – the cost of living, energy prices that impact individuals and families, farming and small businesses and a need for access to housing.

"We know there is a drastic shortage on King Island, not just for people who live there but also for any additional workers."

Ms Forrest will be sworn in on May 22 and will serve in the Legislative Council for six years.

When Parliament resumes Ms Forrest will be involved in the Budget session and will continue her work with the Public Accounts Committee and chair of other committees.

Dog's life for lucky pups

LANA BEST

STANDING beside a stump under the gum trees at Quercus Park, Carrick, King Island beef farmer John Bramich patted his dogs.

Snake, Rattler, Tiger and Snakey, let off their chains for a run around the log heaps, were winding down following the final event on the Tasmanian Working Sheepdog Association trials calendar at Agfest last weekend.

Dozens of the best working dogs in the state had been thoroughly tested – replicating work on the farm in round four of the CopRice Champion of Champion Series.

"Well we competed," was all John could say with a wry grin.

"No luck for us this time, but I won the Open two years ago with Jamieson's Nate and I'm still happy with that."

The variables in trialling means every dog can have its day, and this year that all important finals day went to Lee Jamieson in the Open with Shannandoah Steel (178 pts) and his second dog Glennmurray Toby who was runner up (165) and also runner up in the Novice and Improver sections.

Improver winner was Al Hort with Glennmurray Lucy (82) and Novice winner was Rowan Carter with Karana Leo (154).



John Bramich at Agfest with Border Collie Snake who is more accustomed to working with cattle.

Fresh mobs of sheep brought in for the dogs to work proved challenging for allcomers, and some dogs seems to work better in the wet and others in the dry as the typical Agfest weather constantly changed.

For John's Border Collies just working sheep was a good test of versatility, having grown used to cattle.

John's property at Egg Lagoon is heaven for the herds of Angus, Hereford, Murray Grey, Speckle Park and Red Devon that are fattened on the lush grass ready for market.

After the winter break John will continue to trial his dogs, saying it gives him something to do in his spare time while he's on the Tassie mainland visiting his dad in Wynyard.

"They're pretty strong working dogs, they don't get to work sheep very often, and never a mob," John said.

"But they do pretty well in the trials, and I think that all comes down to control and their ability to read body language.

"They tend to work off your body language.

As he said the words Snake moved in behind his boss, having picked up on a shift in position.

An eager face just waiting and hoping for a silent command to round something up.

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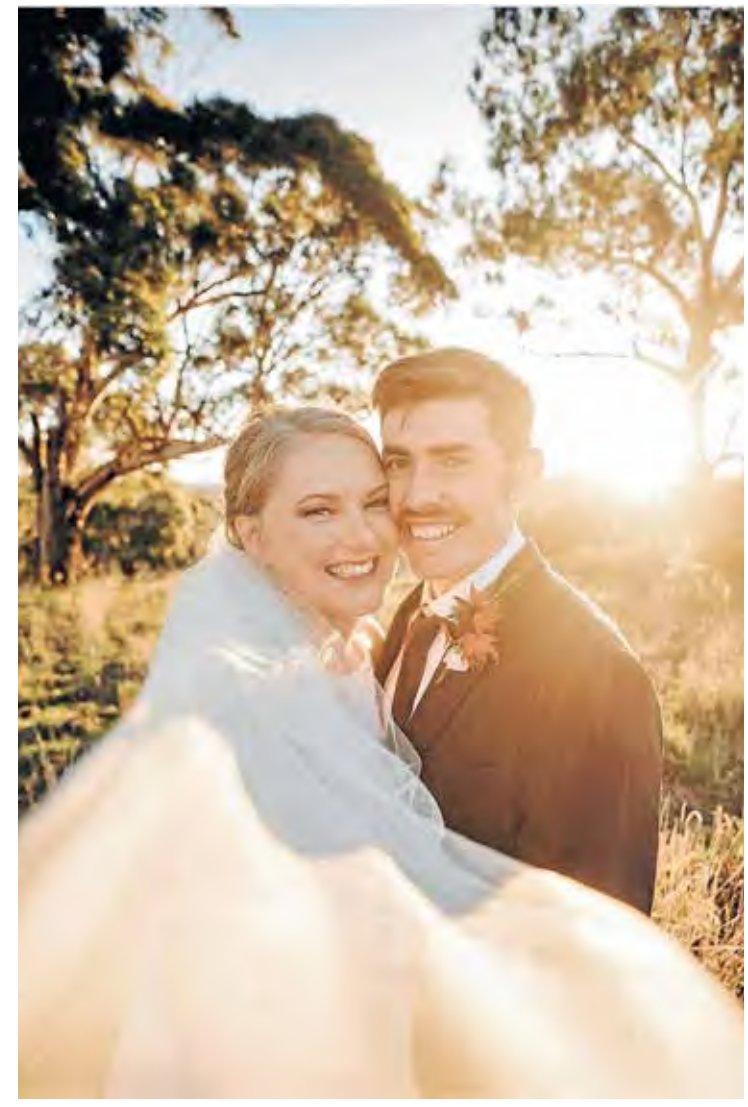
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Couple share their big day





ABOVE: Best man Jaiden Rainbow with newlyweds Patrick Johnson and Hayley Smith and Matron of Honour Beth Rosser. RIGHT: Hayley Smith and Patrick Johnson marry at Winston Park, Ben Lomond NSW.

PATRICK Johnson and Hayley Smith would like to share their special day with their King Island family and friends.

Patrick and Hayley married at the property known as Winston Park, Ben Lomond, NSW on the 22nd of April 2023.

Patrick is the son of Gary Johnson and Deanne Lee, the grandson of Robbie and Sue Lee, and brother of Gemma and uncle of Ava.

Hayley is the youngest daughter of Dugald and Denise Smith of Toowoomba QLD and sister to Elizabeth (Beth) and Nichol and sister-in-law to Anthony Rosser.

Jaiden Rainbow was Patrick's best man partnering with Beth as matron of honour. The Rosser children Fergus, Lachie and Arlie along with Nellie Johnson and Ava Smith made up the bridal party.

Winston Park is in some of the New England region's very best rainfall and grass-fattening country and provided the most perfect setting for the 'house paddock' autumn wedding with a perfect display of oak trees providing a park-like setting for such a happy occasion.

Guests were exceptionally well catered for by family and friends. Patrick and Hayley thank all their friends for their good wishes.

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Truck wash a reality

AFTER lengthy delays, the King Island Council and the Cradle Coast Authority have signed documents that will enable the construction of a truck wash-down facility at the Grassy Port.

Four years ago, the then federal government announced a $4m investment in the construction of a series of state-of-the-art truck washdown and effluent dumping facilities in King Island, Smithton, Devonport and Burnie.

This was to improve Biosecurity and requirements, a reduction in the spread of disease and weeds during transport and improved welfare outcomes for livestock.

The Cradle Coast Authority is the project facilitator and has been working with the King Island Council over the past month. The design of the cattle truck, vehicle and machinery washdown facility is approaching completion and the grant funding deeds have been signed.

The council is working with TasPorts as there are still some matters to be finalised regarding ownership, operating and maintenance responsibilities.

"There are still a few things to iron out, but it's a win-win and I am appreciative of TasPorts leaning forward on this. I will be able to share with the community the designs, location and pictures over the next future months," Mayor Marcus Blackie said.

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Big boys play in childcare sandpit



Big boys shared their big toys and played and worked together in the sandpit at King island Childcare and Creche.

IT was buzzing at the King Island Childcare and creche working bee. Washing, painting, repairing and sprucing. A major undertaking was the sandpit, but the big toys came in to make the excavation easier.

The Childcare posted on social media, "Thank you so much to everyone that turned up to help work on the tasks set out for the creche working bee! There were familiar faces and NEW faces as well!

"Thank you to the volunteers who donated their time and effort to bringing the centre back into shape and fixed any issues we had! It was greatly appreciated!

"Thank you also to Dale and Steph Ellis King Island Meat Providore for donating the snags for our hardworking volunteers and again a big thank you to everyone that brought in the tools and manpower and motivation to get the job done.

"Thank you to King Island Council for donating the sand to fill in our sand pit and thanks to Brad Gregory for assisting with our excavations."



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Grassy once again loc

KING ISLAND FOOTBALL ASSOCIATION

THE weather is crisp but clear and significantly better than forecast, it's time for Grassy to take on Currie and both teams have good looking team sheets, perfect conditions for a fierce and contested match.

Grassy begins quickly with Tristan Forrest opening the account and Tyler Rhodes shortly after with their second. Jack Warrall and Jack Noseda in a body on body contest, that Noseda benefits from and pushes Grassy forward.

Currie finds their first score of the year with a rushed behind, but in time James Jakowenko chips it to Doug Cox who finds Currie's first goal. Grassy responds quickly with another one of their own.

Currie's defence is a hot mess this first quarter, looking for some structure with Jak Youd is doing his all in defense for Currie. Grassy is making them pay with a goal to Tyler Rhodes. For Currie, Cox, Josh Bellchambers and Tom Graham, go forward for Currie to no reward. Grassy gets another. The play on field is evening up as the quarter progresses, while it's not reflected in the scoreboard yet, the play is more contested all over the field.

Currie show promising signs by quarters' end when Graham shrugs off a Noseda tackle and Campbell Keeler goals for Currie. Tyler Rhodes marks on the siren for quarter time and is going for an ambitious goal from in front of the Currie bench and has a decent crack but falls achingly short for no score to see Grassy up by 12 points at quarter time.

Dale Reed gets a free early in the second quarter but hasn't warmed up the hamy and sprays the kick across the face, there is some contested play in Grassy's forward line before Reed find the goals.

The Currie's backline are finding their feet with Ben Doherty to Micheal Laskey sees them go forward but Marty Monson tidy's up in defence. Currie get another entry with Jakowenko into Boze Williams for a shot from the pocket, for a behind, and later Jackwenko marks going back with the flight of the ball 20 out and goals it.

Aaron Wardlaw v Graham contest sees Wardlaw give a free to Graham, on taking his kick Graham ploughs the ball into Wardlaw to see Jackson Taylor rove and dodges a Doherty tackle and gets a quick one off for another Grassy goal.

The second quarter has seen a much more contested, even match up, perhaps the morning dew lingers as there are some sloppy hands and misfired kicks, but it's a fast moving ball with some really handsome match ups which see Currie go in at half time just 13 points down.

Grassy start the third with Taylor taking the ball quickly from the centre into Reed who is inaccurate, but Grassy have locked it in their forward zone.

Tristan Forrest to Tyler Rhodes in close who has no problem with the tight angle and gets the goal. Jackson is just trawling unopposed in the centre and is dangerous. Currie find a forward entry to Doherty, to Keeler, who either has a shot on or tries to chip it to Jackwenko but misses both with a behind. Back at Grassy's end Freddy Tatawaqa has a shot, goals.

Brady Rhodes gets one away before being tackled for a goal and Grassy has a surge of momentum to start the second half.

A handy and versatile Noseda makes his presence known in the forward and backline today, tackles down Bellchambers and comes away with the free. Grassy backline between Samual Reeve, Hudson & Wardlaw put together some pretty handy intercepts & quick movement out of the backline.

Jakowenko is flattened in Currie's forward and takes a while to stand, you can almost see him thinking about a future retirement.

The inflating scoreline looks to subdue the match, there is little in the way of ferocity, intensity or tackling pressure that the team sheets hinted there might be.

Keeler in a good contest with Noseda and gets a rushed kick away which bounces through for a Currie goal, at the end of the third. Grassy have kicked away to see them 42 points up at three quarter time, but not without some good contests.

The final quarter starts as the afternoon temperature drops and Currie are three men down with injury. Grassy get a free straight from the center bounce and soon after Tyler Rhodes is going for goal from 50 out, which falls short and Reed rescues it into play from the point post to turn on his heel and kick a behind.

Reed in the pocket centres to Tyler Rhodes who kicks a little dribble through for a goal.

Back at Currie's end, Reeves marks it on the goal line preventing a certain Currie goal. Reed who has come alive in the last half gets it to Hudson who kicks on the fly for another Grassy goal.

Promising signs for Currie with Tyler Smith who has been solid in their ruck, but Reed clears for Grassy and the umpires head back after another Grassy goal to push them past a 100 points.

There is a promising passage late for Currie when Laskey goes to Beecroft into Graham with accurate kicking and clean hands. Currie coming into their first match in nine months look a little short on speed and endurance in the legs which they'll have a season to work on.

Jackson Taylor continues unperturbed navigating the entire field and gets one into Forrest who finishes it with accuracy. Noseda runs along the south side of the oval to Forrest, back to Noseda, Tyler Rhodes to a Craig Constable x Brady Rhodes contest when it spills out the back. Brady gives chase and kicks it off the ground for a goal. While Grassy run off with the margin of 67 points and take the first two wins of the season, there are definitely promising signs for the Currie side, while Grassy are establishing themselves as once again as the team to beat this year.





oks team to beat





ABOVE: Ben Doherty for Currie flies for the mark.

BELOW: Currie Juniors showed good form and ensured the win.



ABOVE: Currie's Jak Youd gets fingertip touch with Grassy's Jack Noseda in hot pursuit.

FINAL SCORES

KING Island Football Association scores May 6, 2023

Juniors

Grassy	Currie
2-0-12	2-5-17
3-1-19	4-10-34
3-4-22	6-11-47
5-8-38	10-17-77

Grassy
Goals: L. Bonner, R. Esquerra, Cruz Osbourne, X. Berkin, C. Harding

Best: R. Payne, R. Esquerra, X. Berkin, L. West, T. Payne, Chase Osborne, C. Harding

Currie
Goals: Harrison Lincoln 4, G. Freeman 2, L. Reeman, A. Smith, T. Button, Hugh Lincoln

Best: L. Martin, A. Perry, S. Bowling, Harrison Lincoln, A. Smith, L. Reeman, H. Johnson

Seniors

Grassy	Currie
4-1-25	2-1-13
7-3-45	5-2-32
12-9-81	6-3-39
18-10-118	7-9-51

Grassy
Goals: T. Rhodes 4, F. Tatawaqa 4, T. Forrest 3, D. Reed 3, B. Rhodes 2, J. Taylor, T. Hudson

Best: T. Forrest, B. Blomfield, J. Taylor, J. Noseda, T. Hudson, T. Rhodes, F. Tatawaqa

Currie
Goals: C. Keeler 3, D. Cox, J. Jakowenco, Joel Williams, J. Bellchambers

Best: J. Youd, J. Worral, C. Keeler, T. Smith, D. Cox, J. Bellchambers

Memorial Notice

In loving memory of

Carmen Button

November 27th, 1937 - April 2nd, 2023

Please join us in celebrating Carmen's life.

A small, informal memorial will be held on Sunday, 21st May.

Time: 2-4 pm

Address: 331 North Road, Currie

Sharing some memories, some laughs and afternoon tea.

Carmen's family



Dairy farmers cheesed off at name game

THE Tasmanian Farmers and Graziers Association is concerned about recent demands from the EU to implement a Geographical Indications (GI's) regime requiring Australian dairy producers to stop using traditional names such as brie, parmesan, and cheddar.

"The TFGA supports the Australia-European Union Free Trade Agreement in principle," the association said.

"The negotiations for this agreement have been underway since June 2018 and are now in the final stages.

"The TFGA recognises the tremendous potential of the EU market, which boasts a population of nearly 450 million and a Gross Domestic Product of $23 trillion.

"However, the TFGA is concerned about recent demands from the EU to implement a GI regime requiring Australian dairy producers to stop using traditional names such as brie, parmesan, and cheddar.

TFGA CEO, Hugh Christie, who visited King Island in March, said the renaming of



TFGA CEO Hugh Christie.

these products would make it harder for consumers to understand what they are buying, and cost producers millions in rebranding and marketing efforts.

"The EU is simply attempting to impose its market power on Australians," he said.

"If the EU wants us to adopt alternative cheese names, they should be prepared to cover the costs of renaming, repackaging, and redesigning," he said.

"This decision could have devastating consequences for Tasmanian dairy farmers and cheese producers, putting jobs at risk, and it's only fair that the government advocate for everyday Australians."

According to Australian Dairy Farmers, the implementation of a GI scheme could result in a decrease of gross regional production by more than $220 million and job losses ranging from 650 to 1000.

"The Australian Government must ensure that EU does not impose an overly restrictive and anti-competitive Geographical Indication regime on Australia."

"The TFGA does not want to see Tasmanian farmers and producers negatively impacted by a poor decision made in Brussels. Common sense, as well as the well-being of the industry and its employees, must prevail" he said.



A venomous copperhead snake caught on camera cannibalising another snake
Picture: BEN MORLEY

Snake snack-attack

CITY-dwelling and overseas golfers visiting King Island are taken aback when they hit the island golf courses and see the signs "Watch out for Snakes," and warnings to leave the snakes alone and they'll leave you alone, and don't touch the snakes.

Tiger, copperhead and white lip venomous snakes are endemic to King Island… and they are known to engage in cannibalism.

It is a relatively rare behaviour and local resident Ben Morley not only witnessed a copperhead cannibalising another of its kind but calmly captured the sight on camera.

Copperheads are known to be opportunistic feeders, and they will eat a variety of prey including small mammals, birds, amphibians, insects, lizards and other snakes. In some cases, when prey is scarce, or when they are unable to find other suitable food sources, they may turn to cannibalism as a means of survival.

Additionally, juvenile copperheads are known to be more likely to engage in cannibalism than adults, as they are still developing their hunting skills and may have a hard time finding their prey.

In addition to competition for food, cannibalism among Copperheads may also be driven by territoriality and reproductive behaviour. Adult males may cannibalise younger males to eliminate competition for mates, and females may cannibalise their own young if resources are scarce or if the offspring are deformed or sick.

Cannibalism is a natural behaviour in many animal species, and it serves to regulate population size and ensure survival in times of scarcity.

Cradle Coast NRM
CRADLE COAST AUTHORITY

King Island Soils Day



Date: Friday 19 May
Time: 9:30am-4:00pm
Location: King Island Brewhouse - 36 Lancaster Road, Pegarah, TAS 7256
Catering: BBQ lunch will be provided
Cost: No charge
To register: Contact Nick Jamson



You are invited to a King Island focused soil health and fertility day.

Hear from Jason Lynch, Senior Consultant Agronomy, Pinion Advisory.

The morning session will focus on soil fertility and health with the aim of developing a farm-specific nutrient budget.

The afternoon will involve examining two different soil pits with a discussion on various topics including soil structure, remediating soil compaction, cultivation options, soil drainage and managing soil biological health.

Registration closes Tuesday 16 May

To Register:

For more information and to register, contact:
Nick Jamson
Soil Extension Officer
P: 0410 534 583
E: njamson@cradlecoast.com
W: www.cradlecoast.com

This project is supported by Cradle Coast Authority, through funding from the Australian Government's National Landcare Program.

Carbon impact tool

LOCAL landowners are being encouraged to learn how they can estimate their carbon impact.

A new online service has been launched to help.

Resources Minister Felix Ellis said the Farm Forestry Carbon Tool and Workforce Development Portal was supporting the future growth of forestry.

``The Tasmanian Government has invested $300,000 to support the development of a range of tools as part of the Forest Industry Workforce Development and Implementation Plan which aims to ensure a skilled forest and wood processing workforce into the future," Mr Ellis said.

``Developed collaboratively by the Tasmania Forestry Hub and Private Forests Tasmania, the Carbon Farm Forestry Tool enables farmers to estimate their carbon impact and potential tree offset opportunities, with the hope that it will encourage landowners to plant more trees on their properties.

``The Carbon Farm Forestry Tool supports the Tasmanian Government's vision to mitigate long-term climate change impacts nationally and internally and is designed to provide estimates to support farmers as they start conversations and planning about carbon neutrality on their farms."

The tool is a world first and was developed by Tasmanian tech company Indicium Dynamics, and is now available online.

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More to soil than dirt on the boots

CRADLE Coast NRM is running a King Island Soils Day on Friday, May 19. The statewide Soil Extension Program delivers soil extension activities that focus on the importance of soil health and improved soil management, as well as supporting farmers and land managers to utilise the knowledge gained through soil testing. Central to the program is working alongside industry and other soil extension activities to value add to soil health management work rather than duplicate efforts.

The King Island Day will be led by Nick Jamson, soil extension officer for Cradle Coast NRM. Nick is an environmental scientist with experience in the fields of soil science, land rehabilitation and natural resource management.

The day will involve a field and shed session covering topics like soil fertility, pH, nutrients, biology, fertilisers, and soil biology amendments. Jason Lynch from Pinion Advisory, a national Agribusiness consulting group will also be presenting.

The event commences at 9.30 am at the Brewhouse, 36 Lancaster Road Pegarah and then the afternoon session will be nearby out in the field.

All producers, agribusiness and those interested in soil health. increased productivity and environment are invited to attend.



Cradle Coast NRM Soil Extension Program officer Nick Jamson gets down and dirty.

Tourism app launch

TOURISM Tasmania has developed an app to help visitors get the most out of their stay and understand the breadth of tourism offerings available. The Discover Tasmania App displays events, activities, accommodation, places to see, and things to eat and drink throughout the state.

Tourism operators are encouraged to register their businesses on the ATDW database which will allow operators to easily promote their business and events on numerous digital platforms including Discover Tasmania and Tourism Australia Australia.com and the new app. Go to tourismtasmania.com.au and follow the links Australian Tourism Data Warehouse.

Premier Jeremy Rockliff said it would help travellers and locals discover products and experiences, as well as connect visitors direct with businesses.

The Discover Tasmania App is available to download for free on Google Play or the Apple App Store. Tourism Tasmania will drive awareness and encourage travellers to download the app, with a campaign commencing in May and aligning with the Off Season.

The Tourism Tasmania's Off Season winter marketing campaign is now launched interstate.

Pharmacies slam change

FROM September Australians will be able to fill two months' supply at the local pharmacy, rather than one, for 325 prescription medicines.

This is expected to halve the cost of prescriptions.

Peak body representing pharmacy owners, the Pharmacy Guild of Australia has been vocal in criticising the measure and said that this policy change will create medicine shortages and that pharmacies will suffer financial loss.

King Island has a large older and pensioner population and local pharmacist Mariam Melville explained that the government's rationale was to ease the cost of medications.

"Locally PBS medications cost $7.30 and with the changes, essentially you could get two boxes for $7.30 for medications that are on the list. A doctor can write a prescription how they want, but the change will say a 60-day supply with however many repeats they decide.

"I was looking through the list, and most of the drugs I dispense are on the list…Some people will get two boxes, and possibly some will get none.

"We don't want to be put in a position where we decide who gets medication and who doesn't," she said.

Covid has impacted the supply of some medications and the island has the additional barrier of needing to order stocks to come in from off-island and having them within use-by date, or special orders.

"Supply has gotten better over the last two months. Some items are out of stock but since the announcement, a lot has been out of stock. I think a lot of pharmacies might be worried that they won't be carrying enough stock for their customers, I reckon they are or will try and stock up."

A pharmacy gets paid after they have dispensed a PBS medication.

"So, a pharmacy will be paying out extra to get in extra shelf stock and then not getting compensated for it and then you get compensated at the end of the month, or when you submit a claim," Ms Melville said.

She also expressed concern that if a patient stockpiled that increases the risk of overmedication or misuse.

Another consequence is the customer will have less reason to visit the chemist shop.

Patients with chronic diseases may reduce their pharmacy visits by half which means the opportunity to sell other products sitting on shelves is also halved.

"A pharmacy is a business that sits with healthcare."

The government has said the change is to reduce the pressure on GPs and shortages as well as reduce the cost of medications.

The Federal Government has assured the Pharmacy Guild that the $1.2 billion savings from allowing patients to fill two months' supply of medicines will be invested directly back into pharmacies.

The scope of pharmacy practice is under review in 2023 and substantial healthcare reform is on the federal agenda.

Community pharmacists are increasingly providing services traditionally delivered by GPs, however, this push to expand pharmacy practice is meeting resistance from medical practices and their peak bodies.

King Island pharmacy does not administer Covid, flu and traveller vaccines which are provided in off-island chemists and trials in other states including allowing pharmacists to dispense oral contraception and antibiotics over the counter. Overseas nurse practitioners are employed within pharmacies and provide routine procedures and services.

ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Thursday 18 May 2023

Location: King Island Town Hall

Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

CMM29572CP

Hamstring hampers Stewie

THE men's 3000m was one of the most anticipated events at last Saturday's Seashore Group Doha Diamond League Meeting in Qatar.

World-ranked runner and King Islander Stewart McSweyn, slipped on his spikes to compete against a field that World Athletics described as "breathtaking."

It was tough racing for the Australian in the field of world champions and record holders, and McSweyn who was in the front running huddle, suddenly stepped off the track at 800m.

After the race, he told Wide World of Sports: "Been dealing with a hamstring last week or so. Just wasn't ready to go, unfortunately."

The final result in the men's 3000m was Ethiopia 1,2,3. Ethiopia's Lamecha Girma, the Olympic and world 3000m steeplechase silver medallist, clocked 7:26.18 for a meeting record and world-leading time. Olympic champion, Selemon Barega finished second in a lifetime best of 7:27.16, with Aregawi in third 7.27.61.

The event in Doha was the athletics season opener. The World Athletics 2023 Diamond League has 14 meetings on four continents and athletes accrue points based on their finishing position. The athletes with the most points are invited to the Diamond League final. This year it will be in Eugene, USA, in mid-September.

This week, the 2023 Stewart McSweyn Athletics Scholarship, named in his honour, was awarded to Ashley Fehlberg and Tom Winkel from the North West Athletic Club.



The 3000M Men event at the 2023 Doha Diamond League meet was regarded by many as the best event... the top two 3000m runners in El Bakkal and Girma; 2 of the best three 1500m runners in Cheruiyot and McSweyn, and the 5k/10k specialist Barega went head-to-head.

Imperial 20 says thanks

THE Imperial 20 committee presented Terry Perry with a locally crafted signature cheese board thanking Terry and Dorothy Perry for their 30 years of continuous support of the Imperial 20 which commenced at the first Imperial 20 in 1994.

The congratulations celebrated the couple's and family's generosity and lifetime support of King Island activities and events ranging from football and other sports through ongoing assistance to fundraisers and making contributions to the many island activities.



Terry Perry holds his Imperial 20 commemorative cheeseboard thanking Terry, Dorothy (dec) and family for their ongoing island support.

Picture: GARY STRICKLAND

ON THE COURT

KING ISLAND NETBALL ASSOCIATION

May 6, 2023. Under 12s
Emeralds (19) d Topaz (1)
Best Players Emeralds - H Harvey & C Poulson Topaz - P Graham & H Davis

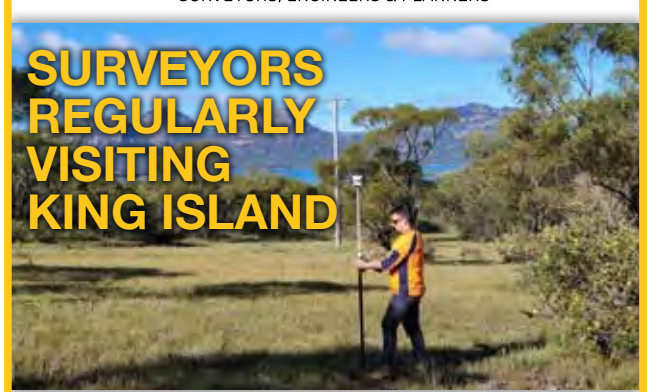
Under 16s Neva (27) d Shannon (25)
Best Players Neva - L Bell & S Bowling Shannon - J Burgin & M Hudson

May 2, 2023 Seniors
Salty's (36) d North (34)
Best Players Salty's - H Lewis & G Johnsone North - S Ellis & E Curtain
Robins (36) def Grassy (35)
Best Players Robins - S McRae & J Burgin Grassy - G Lassey & M Joubert

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The real game begins



STANSFIELD says
with Brad Stansfield

MAKE no mistake about it, Premier Jeremy Rockliff has indeed scored a major political victory and lasting legacy by finally securing Tasmania our own AFL team.

But in doing so I am reminded of words reputedly uttered by King Pyrrhus of Epirus following the battle of Asculum in 297BC "If we are victorious in one more battle with the Romans, we shall be utterly ruined". While reportedly victorious in the battle, Pyrrhus lost a large part of his force and most of his commanders, and ultimately was forced to retreat from Italy.

The question is, is the price paid (both in dollars and political terms) by Premier Rockliff for this stunning Stadium and AFL victory similarly too high, and something he will come to regret at the next election?

There's no doubt securing a Tasmanian AFL team is popular (at a taxpayer price of $12 million a year for 12 years, it must be noted), but the truth is the billion-dollar Macquarie Point stadium is as popular as syphilis at a sex party.

By pumping so much money into the South Premier Rockliff is also going against the iron-clad rule of Tasmanian politics that state elections are "won in the north" (Braddon, Bass and Lyons).

The $130 million upgrade of UTAS stadium in Launceston will help offset the pain somewhat, but with the new 35-seat parliament requiring that the Liberals win 50 per cent of the primary vote in each of those seats to have even a hope of retaining government, you've got to ask if anyone in the Government has actually done the electoral maths on this thing.

This is not to take anything away from the Premier and his Sports Minister Nic Street. They have held the line against strong opposition to funding the Macquarie Point stadium (including from this columnist) and have succeeded in persuading the Federal Labor Prime Minister Anthony Albanese to cough up $300 million to help make it happen. No mean feat.

Since the VFL officially became the AFL in 1990, most Tasmanian Premiers have had a crack at securing Tasmania our own team and ended up holding only a deflated Sherrin.

For example, who could forget former ALP Premier Paul Lennon going cap-in-hand to AFL headquarters to lobby then league chief Andrew Demetriou in 2008, only to reportedly be "dismissed as if he were unimportant" (the ultimate insult to Premier Lennon) and made to wait in the glass-walled lobby for 15 minutes – all the while the media filmed his obvious discomfort from outside.

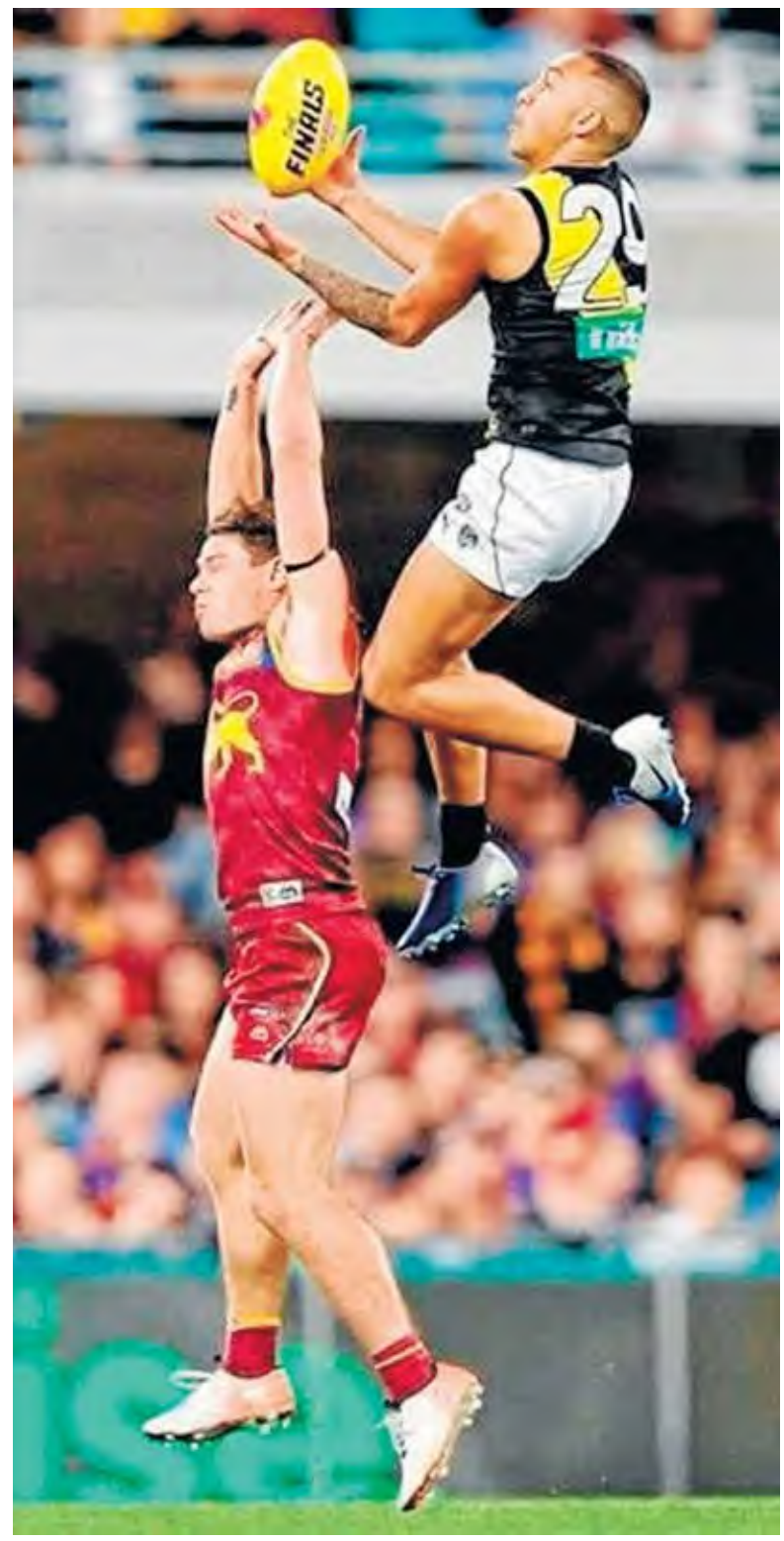
> Premier Rockliff is going against the iron-clad rule of Tasmanian politics that state elections are "won in the North".

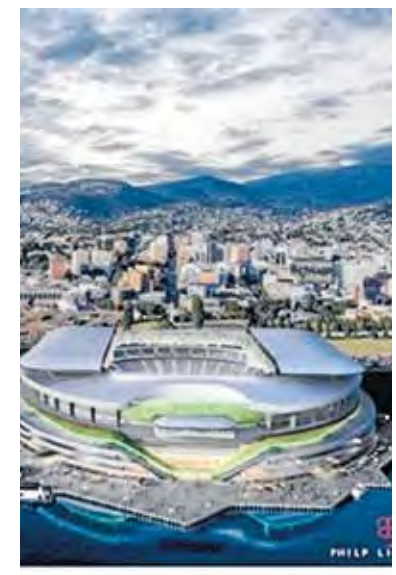
But where Lennon, Bacon and Barlett failed, Jeremy Rockliff has succeeded – although it must be said his ultimate success is built on the efforts of both Will Hodgman, who commissioned the Godfrey Taskforce in 2019, and then Peter Gutwein who first announced the (then floating, now Mac Point) stadium in 2022.

It's a salient reminder of Federal-State relations and one of the number one rules of politics I learned during my time as Chief of Staff to then Premier Will Hodgman. It's a lot easier to get money out of Governments of the opposite political colour in Canberra, than one of your own side.

Does anyone really think that a re-elected Scott Morrison would have provided $300 million to a state that he allegedly called "mendicant" in 2018?

This is a lesson which Labor Leader Rebecca White also learned – to her detriment.





The big men fly, left, but will the billion dollar cost of the Premier's win in getting a Tassie team – the Macquarie Point stadium – above, end up being a major disaster.

After boldly taking a strong position against the stadium, Prime Minister Albanese's preparedness to ignore Ms White's political positioning has left her as political roadkill and raises serious questions about her influence within the Labor Party, and future as State Labor Leader.

If Ms White can't convince even her own Federal Leader of the merits of her position, how can she possibly retain the confidence of own party-room? Even exiled Labor Leader and future contender David O'Byrne - who backed the stadium - appears to have had more influence with the Prime Minister. At the very least, he read the green better.

Labor's Federal Member for Lyons Brian Mitchell, as well as potential Labor contenders for Bass and Braddon, must also be wondering whether Anthony Albanese is serious about Tasmania at the next federal election after stumping up for Macquarie Point. Perhaps the PM doesn't think he needs Tasmanian seats given the state of political play on the mainland.

Finally, this whole saga is a salutary lesson in how to negotiate with Governments. Like Larry Kestelman a couple of years ago with his outrageous Jack Jumpers deal, the AFL has learned that when the Tasmanian Government wants something, negotiating with them can be like taking candy from a baby.

As much as politicians seek to get the best possible deal, at the end of their day it's not their own money they are negotiating with. Rather than the real money that families or business deal in, it's just numbers on a piece of paper.

And the bureaucrats who "negotiate" on behalf of the Government usually have no real-world business experience, and generally lack the ability to call out a bad business deal when they see it.

In 2019 I wrote a column about Tasmania's AFL team travails saying that "the AFL are playing us for fools" by denying us a team.

Four years later, we've now got our own team, but nothing much else has changed.

The AFL may not have played us for fools, but they're certainly laughing all the way to the bank.

Brad Stansfield is a political and campaign strategist and a partner at Font PR and Font Publishing, owner of the King Island Courier.

King Island Courier
A Beacon for the Community

CLASSIFIEDS

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Modern mine update

THE last year has seen Group 6 Metals' Scheelite Processing Plant growing from a clean sand pad overlooking Grassy Harbour.

Today, it is an array of bins, walls, spirals, conveyor arms and sheds, linked by yellow-handled walkways, to form the essential processing component of the new Group 6 Metals mine.

Metallurgical manager Alvin Johns conducted a tour of the mill, explaining the extraction process to recover the maximum portion of the contained scheelite concentration.

Alvin has over 30 years of experience and has been involved in designing, building, commissioning and operating a number of processing facilities around the world. Since 2010 he has been with G6M and said the mine emerge from the drawing board is immensely gratifying, he said.

If you picture an 1850s gold miner sluicing water and sand around a mining pan, using the ridged rim to catch and sort heavy grains of gold; it's basically the same principal employed at G6M, with water and gravity playing pivotal roles.

Alvin said the progressive reduction in size and concentration of the ore is a 'gentle' one because surprisingly, tungsten in its scheelite mineral form is quite soft, so the processing aims to consistently reduce the ore particle size without pulverising it and losing mineral.

"Older plants had two or three mostly compression-type crushers with shaker tables. G6M incorporates multiple crushing and extraction methods resulting in a much higher recovery of tungsten," said Alvin.

"At full production G6M will be able to process 60 tonnes per hour, using between 3- 400 cubic metres of water per hour, 90% of which is recycled back into the process," he said

"Firstly large rocks of around 600mm are brought from the open pit to the primary crusher, and crushed to allow them to be fed to the secondary crusher. From there the ore is fed to the Vertical Shaft Impactor and after that it's basically water and gravity that does all the work, using different sluicing and sorting mechanisms," explained Alvin.

"The primary crusher is the largest single piece of infrastructure, perched high on a gabion wall where haul trucks dump the ore to be loaded into the primary crusher with its vibrating bell tower lined with manganese steel. This crusher will squeeze and smash the rock, which then falls through screens, onto a conveyor belt to more screens and a magnet to remove any tramp metal.

"At this stage, the ore is around 25-100mm and still huge compared to the finished product, said Alvin.

"From here it's conveyed to the secondary cone crusher, which works like an upside-down mortar and pestle.

"The next stages are substantially quieter and will work much longer hours. Firstly the tertiary screen, and vertical shaft impactor which works like a ferocious wet spin dryer, its centrifugal force throwing the ore against its outer anvil wall, breaking the rock along natural faults and crystal boundaries and reducing the 25mm particles down to 1.2mm", Alvin said.

"The next stage is gravity and water sluicing the now sand-like rock through spirals.

"We have a forest of double helix spirals, with modular, movable internal guides to allow heavy minerals to separate from lighter, gently working along grooves, around and downwards, around and around, constantly sorting, sifting and extracting the tungsten concentrate at one tonne per hour.

"From the spirals, ore will move through a grinding process, before heading into the shed, where 18 shaker tables, double stacked, vibrate and concentrate the ore through 75-micron screens, further increasing the grade.

"However, at this stage, it's only a middling concentrate at 150 microns, with several colours visible; Scheelite, various host rocks and garnet (not the type used in sandblasting) and sulphide.

"From here, in a slurry form, the sulphides are floated out and a high strength magnet working at a flux density of 12,000 gauss, extracts the paramagnetic garnet.

"This is where it gets really exciting, with G6M employing a world first in tungsten mining, with 12 bright orange multi-gravity separators," Alvin said.

"The MGS are next-generation mining with an unsurpassed ability to recover ultra-fine material, again using just water and gravity; its centrifugal force pushes heavy materials to its outer wall, which are then dragged forward by blades. It's a simple system, just rotation and shaking, economical and clean.

"The MGS machines take the "waste" from other gravity streams at around 0.5% tungsten and concentrate it to around 5% while eliminating more than 90% of the problematic mineral Calcite.

Here, Alvin's tour ended, as the final milled concentrate section is still under construction.

Next time the tour will take us to the tailings dam.



Metallurgical managerAlvin Johns at Group 6 Metals' sheelite processing plant that he has seen develop from the drawing board to high-tech reality.









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A Beacon for the Community

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Players big and small keep our game alive

Page 6&7

There was great community praise for the big juniors who helped and congratulated the small juniors throughout Saturday's game.

FARMERS SLAM BUDGET 'BIO-TAX'

KAROLIN MCGREGOR and GLADYS BARRETA

TASMANIA'S peak farming body has slammed the Federal Government's proposal of a new biosecurity levy that will see an increase in fees for farmers.

Tasmanian primary producers will be hit with a new surprise levy to help biosecurity measures as part of the Budget on Tuesday.

Continued page 2

MUM'S THE WORD – Page 4&5

G-G special guest for beaut party

KING Island will host the National Keep Australia Awards on May 19 with finalists coming from around Australia – and KAB patrons Governor General David Hurley and Mrs Linda Hurley.

Last year King Island was declared National KAB overall winner.

A program has been designed to show them some King Island sights and to meet local islanders.

The Governor General and Mayor Marcus Blackie have a personal connection.

Mr Blackie served as his personal assistant when the Governor General commanded the 1st Brigade from 1999-2000 in Darwin, supporting Australian-led operations in East Timor.

The Governor-General visit program is confirmed as follows:

10.50am: Arrive at King Island via RAAF jet.

11:30 am - Noon: Reunion with Mayor Marcus Blackie.

Noon -1.30pm: Civic Reception at Council Chambers. (invitation only).

1.30pm - 3pm: Visit to King Island Dairy

3pm- 4.30pm: Meet the King Island public @ The Boathouse. (public, visitors and school students are invited to attend - please park at the Harbour and walk around via the grass track or park at the top of the boathouse hill and walk down).

4.30pm - 6pm: Rest

6pm -9 pm: Keep Australia Beautiful National Awards Dinner at King Island Golf Club. (invitation only).

9:20pm: Depart King Island via RAAF jet.





ABOVE: Governor General David Hurley and his wife Mrs Linda Hurley.

INSET: The Governor-General and King island Mayor Marcus Blackie serving together in the Army, Darwin 1999.

King Island Courier
A Beacon for the Community

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'Bio-tax' slammed

From page 1

The levy will be charged at a rate equivalent to 10 per cent of the industry-led agriculture levies of 2020-21, netting the Federal Government a total of $153 million in just three years and will start from July 1, 2024.

Tasmanian Farmers and Graziers Association president Ian Sauer said that the government has forgotten that farmers are always wearing the cost of biosecurity incursions and that the new levy will add unnecessary complexity.

"Farmers wear an economic cost, a social cost and sometimes it's an environmental cost," Mr Sauer said.

"This biosecurity levy is being levied on the whole agricultural chain at the farm gate through cents per cattle or per chicken.

"I don't know how this is going to be administered, it's going to be a joke."

Mr Sauer fully supports Australia's current investments in border control but said there has been no discussion between the government and agricultural sector on the new levy.

"The fundamental principal of making sure biosecurity is recognized internationally as first class is essential but it's how we get there and pay for it we've got concerns with.

"I see it as a very costly and complex thing to administer. How are you going to count up how many chickens were sold?"

"Governments' role is to create an environment that allows industry to flourish and grow to be effective and efficient – we are not there to do the paperwork for the government."

Primary Industries and Water Minister Jo Palmer said Australia's biosecurity system was the industry's first line of defence.

"While the State Government welcomes the additional funding for biosecurity measures, we are closely reviewing the impact of the Federal Government's tax on farmers to pay for these initiatives," Ms Palmer said.

A lack of consultation and major increases to biosecurity levies in the Federal Budget has also been criticised by Tasmania's peak fruit grower body.

Fruit Growers Tasmania chief executive officer Peter Cornish said it was disappointing the Federal Government had not consulted industry about the changes, which will see growers forced to pay for a significant increase in biosecurity charges.

Because the increase is being applied to total levy producers currently pay, which includes funding for other industry activities like research and development and marketing, Mr Cornish said the increase to the actual biosecurity component is huge.

With apples for example, the biosecurity component of the current per kilogram levy is 0.07 cents, however this will increase to 0.26 cents, a jump of more than 200 per cent.

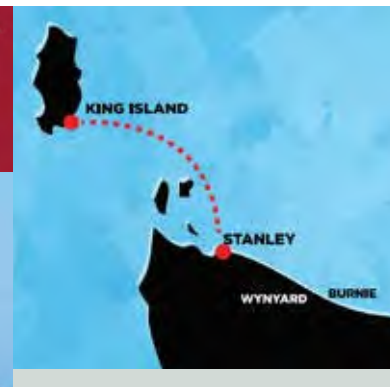
By applying the 10 per cent increase to overall levies, not just the biosecurity component, Mr Cornish said some producers would be hit harder than others.

"For any of the ones that have a high level of research and development as a component or marketing as a component of their levy, it's going to cost them relatively even more because the 10 per cent is a misnomer," he said.

Importers are also expected to contribute to biosecurity costs with increased fees on clearance costs expected to take their total contribution to $350 million next year.

EASTERN LINE SHIPPING





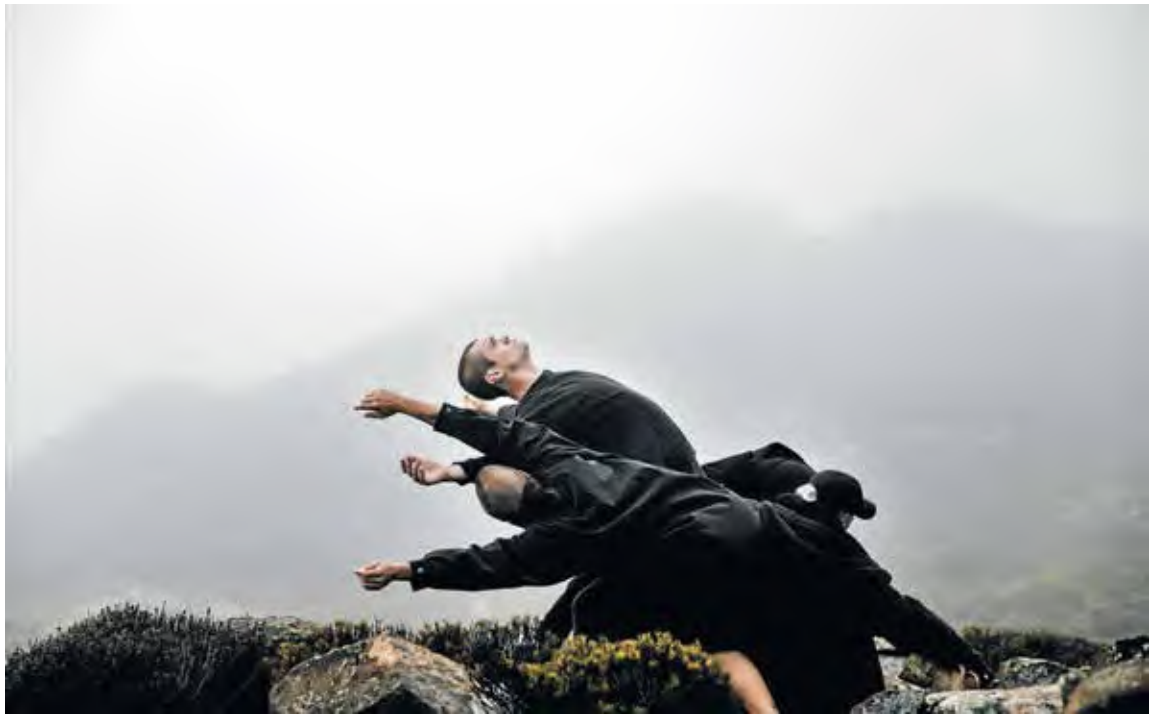
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Choreographer Kyall Shanks' Tasdance Influencer will tour King Island in 2024 and is on the island on May 27 for a community workshop. Picture: MELANIE KATE PHOTOGRAPHY

Troupe's dance influence

TASDANCE fuses outstanding dance artists with innovative artists from other disciplines to create multifaceted contemporary dance.

The group will visit King Island on May 27.

Influencer is a new professional work that explores our relationship to social media and influencer culture through dance.

The work is choreographed by Kyall Shanks and will tour King Island in 2024. Alongside the tour, Tasdance is undertaking some community development in each region across 2023.

This includes free workshops and engagements with the professional artists making the work.

For those who are keen, there is also the possibility to perform as part of the event in a new community performance which will debut alongside the show in each community.

This is their first visit to King Island for this project and Tasdance would love to meet islanders at the Influencer information session 1-3 pm May 27 in the King Island Town Hall.

They will also be visiting King Island District High School and talking to students.

They will talk about Tasdance, what the project is and how you can be involved. This session will end with some movement (totally optional).

For more information, please contact Emma Porteus at emma@tasdance.com.au

Farmers fear hung parliament

KAROLIN MACGREGOR

TASMANIA'S peak farming body says it is deeply concerned about political upheaval within the Tasmanian Government and the possible impacts on agribusiness confidence.

The Tasmanian Farmers and Graziers has voiced its concerns after the shock resignation of two Liberal MPs from the party, which now means the State Liberal Government has been plunged into minority.

Liberal MPs Lara Alexander and John Tucker announced their decision to resign from the party and become independents late last week, citing concerns over the proposed new $715 million AFL stadium in Hobart and a lack of transparency around the project.

TFGA president Ian Sauer said while agriculture across the state enjoyed bipartisan support, a minority Government could have a significant impact on business confidence in the sector.

"Some of the TFGA members and farmers that I've spoken to have concerns about the football stadium and the cost and everything else," he said.

"However, those concerns are dwarfed with the concerns about there being a legislative paralysis in parliament and so that's the bigger concern that I've been picking up."

Mr Sauer said many are concerned about the broader economic impacts of a minority government. "What farmers and other business leaders are talking about is that past history shows that when you get a hung parliament everything gets slow right down," he said.

"When you've got to rely on other parties, everything gets diluted and everything slows down, there's a high degree of frustration and it's the economy that misses out."

Mr Sauer said agriculture is a major pillar of the economic and social fabric of Tasmania, so any loss in confidence that impacts agribusiness due to political instability in this state should be a concern for every Tasmanian.

In recent years the Tasmanian economy has been leading the nation on certain indicators and Mr Sauer said agriculture in the state had enjoyed a period of stability and confidence, something the sector would like to see continue.

"A big part of the economy doing so well comes down the confidence," he said.

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THIS WEEK'S SPECIALS!

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$4.70 ea
SAVE $1.65



Nestlé Kit Kat Gold Chocolate Block 170g
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$4.60 ea
SAVE $2



John West Tuna & Beans Three Beans 185g
$22.97 per kg
$4.25 ea
SAVE $1.40



Moccona Freeze Dried Instant Coffee Classic Dark Roast 400g
$6.25 per 100g
$24.99 ea
SAVE $10



Cold Power Triple Caps Odour Fighter 30 Tabs 450g
67¢ each
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$2 per 100g
$4.99 ea
SAVE $1



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PLUS MANY MORE SPECIALS IN STORE AND ON FACEBOOK

IGA WHERE THE locals MATTER

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IGAVI9190_170523

Mum's the word







LEFT: Brand new mum Hannah Aldridge with Angus who was born on May 2.

CENTRE: Donna Reeman and mum Trish Doherty together on King Island.

ABOVE: Nanna Sue Aldridge welcomes newborn Angus.

TASMANIAN FREIGHT TO KING ISLAND

FREIGHT CONNECTIONS PTY LTD
DEPOT: 1-3 ANGLESEA STREET, WIVENHOE (BURNIE)
PHONE: 03 6432 4362 or 0403 540 633

Freight Connections will commence receiving freight for King Island Wednesday 19/4/23 at the above depot in Wivenhoe.

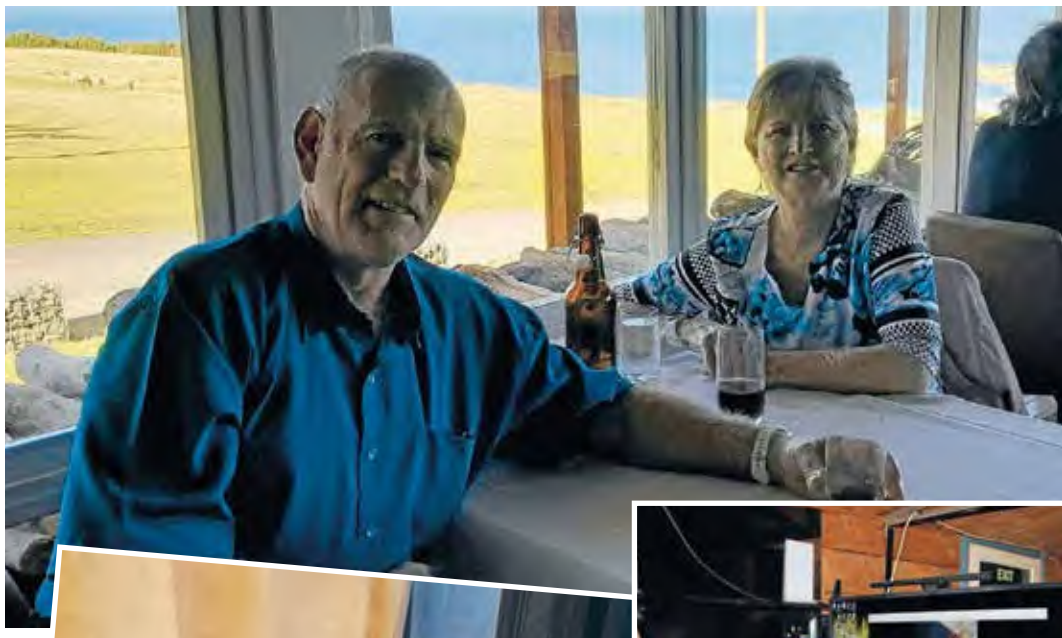
NOTE: Initially, receival days for delivering freight into the depot will be Wednesdays and Thursdays, 8:30am - 3pm.

Freight Connections will pick up freight Monday - Friday (5 days a week) statewide.

FREIGHT CONNECTIONS: 6432 4362
JIM MCKENZIE AGENCIES: 6462 1415



on a special day

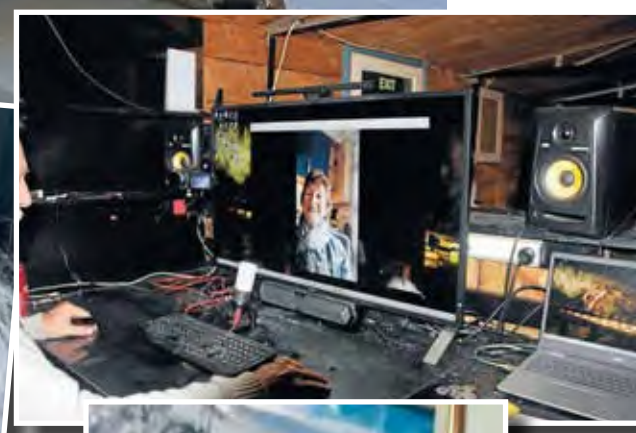


LEFT: Bert and Larraine Nievaart enjoy Mother's Day lunch at Wild Harvest restaurant.

BELOW: Zooming into the Netherlands with Suze Roskam.



ABOVE: Grandma Ann Tarleton has her first cuddles with newborn Angus.





LEFT: Island visitor Ros Pearce Facetimed her daughter Seona Ritchie in Melbourne and chatted with grandchildren.

MUMMIES, mums, mamas, nannas, grans, grannies grandmas, nonnas, and omas, were celebrated in many ways last Sunday.

King Island mums received children's handmade gifts and cards, and maybe breakfast in bed and a day of leisure.

Some families held a beach barbecue others breakfasted or lunched in Currie at the Larder, the King Island Hotel, had a leisurely wine at Legs, or made their way to Grassy for lunch or dinner at the Grassy Tavern and Wild Harvest with dining entertainment provided by past resident Charles Pearce who flew back to the island, with his wife Ros for the weekend.

Some took a weekend escape and for others it was a day just like all others.

Social media reflected a broader conversation. Posts shared a day of recognition, gratitude and support.

Posts also reminded us that it can be a day of sorrow and loss. Mums of all ages were remembered for being forces of love, care and protection but in a rapidly changing world mothers and mothering included newer and broader thoughts about mothers and acknowledged leadership, strength, softness, survival and choices.

Facetime, Messenger, Zoom and other video technologies are now commonplace and are regularly replacing the telephone and over the weekend linked older, younger and new mums to their mums located not only around Australia but also around the world.



Need Help?

Did you know the *Courier* reaches the equivalent of 75% of King Island's population? Advertise available positions in *Courier Careers* and ensure you are reaching the right people for your business.

james.young@fontpublishing.com.au

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Nescafe Sachets 10 Pack Varieties $5.99 EA SAVE FROM $3.17

Tresemme Shampoo/Conditioner 940ml Varieties $8.99 EA SAVE FROM $5.91

Arnott's Cream Biscuits 250g Varieties $3.25 EA SAVE FROM $1.36

Continental Pasta/Rice Pack 85-120g Varieties $2.25 EA SAVE FROM $1.27

Continental Cup-a-Soup 2 Serve Selected Varieties $2.75 EA SAVE FROM $1

Finish Rinse Aid Regular 250ml $5.99 EA SAVE FROM $4

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Uncle Toby Muesli Flakes 820g $8.99 EA SAVE FROM $2.25

DAIRY & FROZEN

Cheer Cheese Tasty Block 1kg $16.99 EA SAVE FROM $1.85

Don Salami 200g Varieties $8.99 EA SAVE FROM $1.78

Flora Pro Activ 250g $4.99 EA SAVE FROM $1.46

Western Star Spread Butter Tub 500g $6.99 EA SAVE FROM $1.21

McCain Wedges Pub Style 750g $7.99 EA SAVE FROM $1.55

Connoisseur 4 Pack Varieties $6.75 EA SAVE FROM $5.20

DELI

Chicken Drumsticks $6.75 KG SAVE FROM $1.24

Middle Rasher Bacon $15.99 KG SAVE FROM $2.76

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Hot dogs overrun Rob

KING ISLAND FOOTBALL ASSOCIATION

THERE was a good turnout on the team sheet and crowd for the unseasonably warm North home game as they took on Currie for the first time this season.

Abraham, Sam, and James Shires played on permit with their cousins, Jeremy, Justin, and Jye Summers, and what a difference they made to the North side.

Currie struggled for numbers an hour before the game, but by the time the game started, they had managed to gather 15 players.

Keenan Fanning and Tyler Smith contested the ruck first, with North getting the first forward entry, which was quickly retrieved by Ben Doherty for Currie, out to Tom Graham but didn't make it past the centre with some heavy hits to open the game.

The opening minutes established a rapid pace, clean hands, and pressure football. James Shires for North got the first shot on goal for only a minor score. Kayden Barnes for Currie marked 30m out in front but sprayed it out on the full.

The hard and fast play and the game's intensity were like the previous week, but neither team could take an accurate hit. Currie finally found a goal through Nathan Allen.

Taylor Cook to Justin Summers who ran through the centre to Fanning and into Blaze Mallinson for another shot, which was marked on the line by Currie. It was sent forward, and Jarrod Williams (Boze) scored the goal.

Apart from a little sun in the eyes, it was perfect footballing weather, with Currie kicking straight and getting themselves a second goal while North was still unable to find the big sticks.

Blaze got North's first on the run. The tackling pressure for the first quarter was first-class, and the match-ups were even. Currie went into the first quarter break four points ahead.

North opened the second quarter quickly with a goal, followed by another. to begin the quarter.

All the play was in the North forward line, putting the Currie defence under pressure. Dale Ellis to Jeremy Summers (Jez) in the North forward line on a 45-degree angle for a behind, but the ball didn't make it out of the Currie defence before being turned over and turned into another North goal.

Jez got another chance shortly after his behind, and this time didn't miss. North had all the momentum in the second quarter.

Doug Cox to Jack Worrall skirted around the Currie 50 before they could only get it slightly inside to Tom Graham, who tested his full measure, but the ball was touched on the line.

Joel Williams (Mole) in a relentless tackle after the kick-in was rewarded with a free and saw it through against the flow of play.

Currie immediately got another forward entry for a poster. Dillon Beecroft had a piece of everything on Saturday. North got it quickly through the centre and caught Currie's defenders snoozing and gave James Shires a shot 30m out in front for a goal.

The play returned to a more even, contested, athletic, high-skill football midfield, but North continued to find a way forward and kicked out to a 19-point lead. Currie ran down a man in the centre, and quickly, Beecroft jetted off with the ball, centring to Mole, who kicked a classy goal, but North went into the long break 22 points up.

Jez opened the quarter with a behind, and Worrall got a big kick out that went straight into a contested pack and came back North's way, but Currie's defence mopped up again, and this time Currie got a forward entry to no avail.

Kicking, marking, and contested high balls marked the beginning of the third quarter.

Ned, playing forward for North took it in the pocket and with quick feet centred to Jez who moved it forward to James Shires who goaled.

The Currie backline was under pressure all afternoon and held up well. Another goal for James Shires.

A game highlight occurred down the shed's side when Tom Graham and Justin Summers engaged in a great foot race that saw North go forward for another and put North 47 points up at lemons.

North opened the last with another goal, a strength class at Finn earlier in the week obviously worked wonders for a few of the North boys because they had the legs to run this thing out.

Mole, from a mark, missed shortly after Allen from a free in the pocket found the goal for Currie. James Shires for North goaled again.

No one was at home in the Currie forward line when it arrived, and it quickly returned to North's forward area.

Most of the play continued in North's forward line, with a point followed by a poster. Jak ran it through the centre, but the cavalry didn't arrive in time and a 3 on 1 contest in Currie's forward line saw the ball easily taken back by North. Currie got one back, and play remained contested and competitive.

Beecroft and Hunter still had plenty of legs at the halfway point of the last quarter. Tom Graham goaled from a 50-meter free.

North controlled the midfield, as the ball came out of Currie's forward line again with half a dozen players standing around with their hands on their knees, the exhaustion was clear in their posture.

It cooled off by the final siren, and end to end it was a good contest throughout the match, with North out scoring Currie strongly in the middle half to run away with the game in their first home game of the season to win by 48 points.

Next week we see North take on Grassy again and it will be interesting to see if Grassy can keep up their winning form.





ins in first clash







ABOVE: North outscored Currie in their first home game of the season to win by 48 points. Tom Graham, left, Justin Summers, Doug Cox, Tyler Smith and Keenan Fanning.

LEFT: Jai Lewis was excited when he booted his first goal for North Juniors 'I nearly had happy tears,' said his mum, Abbey Lewis.

ABOVE Athletic, high-skill football in the midfield, but North continued to find a way forward with umpire Marcus Blackie controlling the highly contested game. Jack Worral and Jeramy Summers flying high.



ABOVE: Dale Ellis and Jared Williams danced a fandango in the afternoon's long shadows.

FINAL SCORES

King Island Football Association scores May 13, 2023

Juniors

North ..... Grassy
2-5-17 2-0-12
11-6-72 2-1-13
18-9-117 4-3-27
25-15-165 5-5-35

North
Goals: Harrison Lincoln 10, A. Smith 6, L. Baldock 2, G. Freeman 2, L. Reeman, M. Button, G. Smith, A. Perry, J. Lewis
Best: L. Martin, T. Hyde, M. Poulson, O. Martin, T. Button, G. Smith, J. Lewis, L. Reeman

Grassy
Goals: R. Esquerra 2, X. Berkin, H. Harvey, L. Reeman
Best: R. Esquerra, H. Harvey, R. Payne, O. Martin, L. Bonner, E. McGrath, S. Payne

Seniors

North ..... Currie
1-3-9 2-1-13
7-7-49 4-3-27
11-9-75 4-4-28
14-11-95 7-5-47
North: Goals: J. Shires 8, Jeremy Summers 3, B. Mallinson, K. Fanning, D. Ellis
Best: J. Shires, S. Shires, A. Shires, Justin Summers, K. Fanning, N. Hunter

Currie: Goals: Joel Williams 2, Jarod Williams, D. Beecroft, N. Allan, T. Graham, D. Cox
Best: T. Smith, J. Bellchambers, N. Allan, J. Youd, D. Cox, B. Doherty

Unions hit 'weasel words'

MARTINE HALEY

THE Tasmanian Government has been accused of betrayal and using weasel words over local government reform.

The Australian Services Union, which represents many local government employees said imposing forced amalgamations and centralised services would solve nothing.

ASU branch secretary of Tasmania Lisa Darmanin said Tasmanian ratepayers were being played for fools.

"The lengthy Future of Local Government Review Interim Report leaves many questions unanswered; dangerously it creates more questions than it answers," Ms Darmanin said.

"The Government has betrayed their commitment of not forcing amalgamations onto Tasmanian communities.

"They are telling Tasmanians we can't be trusted to understand what is best for our own communities.

"When we talk to workers and community members, we hear them say the government's decision to force mergers is a predetermined outcome."

She said the Government thought it could fool Tasmanians by using words like 'boundary re-draw' or 'consolidation', but these phrases are weasel words.

"The Government is determined to force amalgamation, jamming council regions together to make bigger councils. And Tasmanians are awake to it.

"Local Government Board Chair Sue Smith says the areas are not a predetermined outcome, but the report itself states the maps are the "beginnings of a set of principles (the board) think will make for robust councils."

"Ratepayers are not fools; they will know this is barely hidden code for amalgamation.

"Forgive us for our cynicism, but the whole point of local democracy is being able to approach your local member of council and have your voice heard."

Previously Local Government Minister Nic Street has refused to rule out forced amalgamations.

"I understand the interest in this but I won't be drawn into a 'rule in-rule out' game," Mr Street said.

"I will respect the review process and am waiting to see what the board has to say about the options."

'Buyer beware' advice

PETER HOPKINS
MAST General Manager Recreational Boating & Safety



MAST will soon be introducing new legislation to better manage the transfer and registration process for recreational vessels. The changes are centred around ensuring the vessel is not an unsafe vessel.

Many older vessels may have been modified since their construction, which could affect the safety of the boat itself. Common modifications include – new engines, brackets and fixtures being screwed into the vessel, additional weight being added with pot haulers, larger fuel tanks etc. The way a vessel has been stored, maintained and used also affects its condition.

Under new legislation to be implemented, you will be required to , declare –that your boat is not unsafe when registering or selling a vessel.

In addition, the person buying the boat must also declare that they are satisfied the vessel being transferred to them is not unsafe. Both the seller and purchaser will have 14 days to notify MAST of the transfer.

This is an important change to Tasmanian legislation, which is designed to better manage transfers and registrations of vessels and improve safety outcomes.

For the purposes of registration and transfer, an unsafe vessel is a vessel which, in the opinion of a reasonable person, may endanger a person due to one or more of the following circumstances:

(a) the structural condition of the vessel, or a component of the vessel, that renders the vessel unfit to undertake a voyage for which the vessel is otherwise designed and would be, if not in that condition, capable of undertaking;

(b) the engine power rating of the vessel, as recommended by the manufacturer or recorded on the ABP, is being exceeded;

(c) the engine mass of the vessel, as recommended by the manufacturer or recorded on the ABP, is being exceeded;

(d) the absence of, or condition of, materials or items comprising the reserve buoyancy, or part of the reserve buoyancy, of the vessel

Many vessels are advertised for cheap prices on various platforms. There is no such thing as a cheap boat!

Often once you start digging you can find a lot more problems than first meet the eye.

The best advice MAST can give any prospective buyer of a second-hand boat – whether as a first boat or if you are downsizing or upgrading - is to take someone who knows about boats when you are viewing the boat.

The old maxim of "buyer beware" is especially important when you are buying a second-hand boat.

MAST will update its website with regard to the the implementation of this new legislation at: www.mast.gov.tas.au over the coming months to ensure sellers and buyers understand their obligations.

Heart Foundation Walking



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or 13 11 12

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New man at airport

COLIN Fort, pictured, has been engaged as the new manager of the King Island Airport.

Mr Fort has managed airports for more than 18 years. Coming from Queensland he has worked in the roles of Chief Executive Officer and Chief Operating Officer of Gladstone Airport, working for the Gladstone Airport Corporation.

Most recently he worked for Essendon Fields, Melbourne as General Manager of Aviation.

Previously he held a diverse role managing two unique airports: Christmas Island – an international airport and Cocos (Keeling) Islands Airports," and was employed by Toll Remote Logistics.

Mr Fort's cumulative experience has included leadership and strategic management within evolving airports with responsibility for driving sustainable business transformations, revenue growth and increased profitability.

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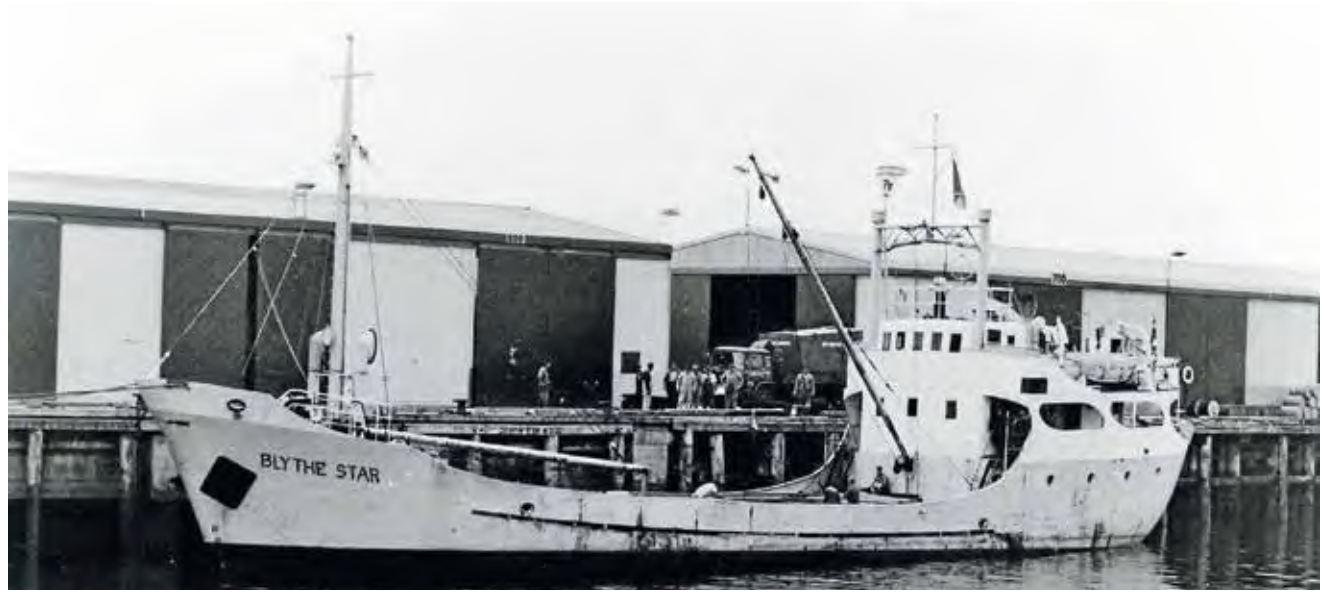
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Blythe Star mystery put to rest



MV Blythe Star docked in Hobart.
Picture: QUEEN VICTORIA MUSEUM, AUCHD.

AN investigation by CSIRO research vessel (RV) Investigator has confirmed the location of the wreck of the MV Blythe Star.

"The 44-metre motor vessel (MV) Blythe Star was a coastal freighter that disappeared off Tasmania nearly 50 years ago," the CSIRO said.

"The vessel was travelling from Hobart to Grassy King Island when, on 13 October 1973, it suddenly capsized and sank off the southwest coast of Tasmania.

"All 10 crew members were able to escape the sinking vessel into an inflatable life raft.

"Three crew members died before the survivors were rescued 12 days later on 24 October 1973."

The disappearance of the MV Blythe Star sparked the largest maritime search ever conducted in Australia to that time. No trace of the vessel was ever found by the searchers.

The King Island News reported in 1973, "The Blythe Star, built at Le Havre France in 1947 for Norwegian owners, her original name the Tandik, was brought to Australian waters in 1959 and renamed the Blythe Star to replace a vessel of the same name which burned out."

The ship was formerly an explosives carrier and did not carry livestock. It was initially chartered for three months by the Tasmanian Government following a supply crisis for the King Island trade while the government sourced a new ship to replace the King Islander which had ceased servicing the island and had been sold.

"The government added a month to the contract and then the charter was extended to six months. The charter extension was reported as "…a greatly needed relief."

In the week prior to its disappearance, the Tasmanian Government announced that it intended to buy the Blythe Star when the six-month charter on the ship ran out. The ship delivered general cargo, fertiliser and explosives for the scheelite mine unloading at both Naracoopa and Grassy and was from time to time chartered by King Island Dairy and linked the island to Melbourne and Tasmanian ports.

When she was three days overdue on her voyage from Hobart, the search included a massive RAAF sweep over waters south of King Island then northeast and west. A RAAF Dakota and Hawker - Siddley Navigation Trainer were sent from Sale and an Orion from South Australia.

A CSIRO release said, "The location of the MV Blythe Star was confirmed by RV Investigator on 12 April 2023 during a 38-day research voyage to study a submarine landslide off the west coast of Tasmania. This voyage, which was led by the University of Tasmania, included a piggyback project to investigate an unidentified shipwreck that had been pinpointed by fishing vessels and previous seafloor surveys in the region.

"Piggyback projects use resources already allocated to a voyage to collect additional useful or important data for national benefit.

"The investigation by RV Investigator involved the systematic mapping of the unidentified shipwreck using multibeam echo sounders and then a visual inspection using two underwater camera systems. The mapping data and video imagery collected by RV Investigator was able to confirm that the shipwreck was the MV Blythe Star.

"The wreck of the MV Blythe Star is located approximately 10.5 kilometres west of South West Cape, Tasmania and lies in 150 metres of water. The investigation showed the vessel is intact and sitting upright on the seafloor, with its bow pointing northwest. The visual inspection using the underwater cameras was able to identify key features to confirm the wreck was the MV Blythe Star. This included identifying part of the vessel name – 'STAR' – on the ship's bow.

"The wreck was covered with a minimal growth of algae and seaweed, and some structures showed signs of damage, particularly on the stern. Most notably, the vessel's wheelhouse is no longer present. Various marine life was observed on and around the wreck including crayfish, schools of fish and several fur seals, which were filmed swimming around the wreck.

"The data from the project have been provided to state and national maritime heritage agencies as part of the reporting process for the Australasian Underwater Cultural Heritage Database (AUCHD). It's hoped that the mapping and video footage gathered may provide additional information to help answer questions about what caused the vessel to sink.

"The outcomes of the project have been shared with key stakeholders including members of the Blythe Star Memorial Group, which will hold an event in Hobart during October this year to commemorate the 50th anniversary of the tragedy.

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Dung beetle boost

OVER the past few months a program to increase dung beetle numbers in Tasmania's grazing regions has been underway.

A monitoring and redistribution program run by Cradle Coast Authority Natural Resource Management is aiming to help re-establish dung beetles in areas where numbers have declined.

Peak activity for the Blue Bomber or Geotrupes spiniger tunnelling dung beetles has come and gone for this year.

While there are still a few late emerging beetles flying at dawn and dusk, the advent of cooler weather, particularly night time minimum temperatures, has heralded their retreat for the wetter months.

From monitoring their numbers at one site near Ridgley in North West Tasmania from December 2022 through to late April this year, emergence of G. spiniger in summer appeared to be a few weeks later than usual, which resulted in them persevering a little later into autumn.

Slightly cooler than average temperatures through November and December last year likely played a role in this, as larval development of beetles in the soil profile is in part driven by soil temperatures.

A program by the Cradle Coast Authority NRM around the region is aiming to identify grazing districts where this vigorous species of tunnelling dung beetle has declined.

ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Thursday 18 May 2023
Location: King Island Town Hall
Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
T: 07 3182 7122
conocophillips.com.au

CMM29572CP

How to beat cyber criminals

CYBER-crime is on the rise, as evidenced by the recent data breach which has impacted at least a quarter of all Tasmanians, following the hacking of a third party provider to the Education Department and TasTafe.

As a result, a new campaign has been launched to raise awareness among locals.

The campaign is aimed at encouraging all Tasmanians to defend their data as cyber threats from criminals become more frequent and more sophisticated.

"Whether at home or in our workplaces, our reliance on technology is increasing, making us all potential targets for cyber-crime," a campaign spokesperson said.

"Recent high-profile cyberattacks have shown that even being a client (or former client) of an organisation can put us at risk.

"Key to the campaign is raising awareness of how to detect a scam, what you can do to protect yourself online and knowledge of what to do if you are the victim of a scam."

A new website – defendyourdata.tas.gov.au – has been established to provide information on how to defend your data.

The site contains three videos to explain how to screen for scams, shield yourself and be ready to react if you need to.

Anyone can be vulnerable to a scam, so it is timely that everyone refreshes their knowledge of best practice data protection both at home and at work.

Screen for scams

BE wary of unexpected contact, even from someone you know.

Be cautious of communication that demands you to act quickly or provide personal information.

If you feel unsure about a message, don't send a reply, open attachments, or click on any links.

Shield yourself

REGULARLY update the apps and software on your devices.

Never use the same password more than once. Make them unpredictable, unique, and long.

Set-up two-factor or multi-factor authentication whenever possible.

Immediately close any website your browser identifies as unsafe.

Be ready to react

BLOCK all further contact from the scammer.

Contact your bank if money is involved and inform them of what happened. Report the scam.

Visit defendyourdata.tas.gov.au

Trip down memory lane



Left to right Geoff (Pud) Watts, Jennifer Payne, Helen Strickland, Tim Attrill, Gail Silk, Mary Marshall, Lyn Mauric, Laurie Haines, Jenny Attrill, Gary Strickland, Brett Thorn.

LAURIE HAINES

I RECENTLY visited King Island for work. It was the first time back on the island in 40 years and ten of my classmates from King Island District High School (1972) still live there. My partner and I met up with eight of them for dinner at the Golf Club for a long-awaited reunion.

My family lived on King Island in the 60s and early 70s at the Butter Factory where my father Keith was the mechanic. We lived there with my mother Shirley (dec), brother Andy, and sisters Jane, Lisa, and Joanne. I left the island in 1973 when I was 15 to join the Navy where I served for 33 years.

I now live in West Ulverstone, where I work for the Australian Bureau of Statistics.

My family moved to Melbourne in the mid-'seventies but we remained connected to the island through David and Sheila Sweeting, my uncle and aunty, both now deceased.

The ABS asked me to go to the island to conduct some surveys and hopefully, I will have the opportunity again should some more samples be included.

Lee a natural horseman

AGFEST fun for King Islanders included getting to the Lee Davies horsemanship display.

Lee is well known to island horse owners and riders for his visits and natural horsemanship tools and training clinics.

His understanding of horse psychology has grown over the years and the gentler approach is the only way for him and his devotees.

Lee was due to come to King Island in February to hold a horsemanship clinic for adults and young riders, however, flight cancellations and no replacement flights meant the three-day clinic had to be postponed. Just prior to his scheduled trip he had returned from competition in the US and late last year he won the Trainers Challenge at the Man from Snowy River Festival.

Kirstie and Trish McKenzie joined the Agfest audience where he "showed an exercise in creating lightness in their horse, through being consistent, breaking the task down into smaller pieces and presenting that puzzle piece to the horse and allowing them to put it in the correct place."

It is hoped that the next LD Horsemanship Clinic on King Island will be in July.



Lee Davis from LD Horsemanship and Kirsty McKenzie at Agfest 2023.

ON THE COURT

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Under 12s
Topaz def Rubies (5)
Best Players
Topaz - I Hendrick & G Smith
Rubies - D Davis & L Reed
Best on Court - D Davis

Under 16s
Neva (60) def Netherby (14)
Best Players
Neva - L Bell & K Jacobson
Netherby - M Flood & K Smith

Seniors 9th May 2023
North (49) def Robins (17)

Best Players
North - P Williams & E Nichols
Robins - M Ferrier & A Brooks

Salty's (45) def Grassy (38)

Best Players
Grassy - R Smitheram & J Reeves
Salty's - M Lewis & N Gregory

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Positive outlook in dairy despite easing of prices

KAROLIN MACGREGOR



DAIRY prices are expected the ease down from current record levels, but producers are being told to expect another favourable season.

In its annual Australian Dairy Seasonal Outlook report, Rabobank says the sector is set for its fourth consecutive profitable year.

Rabobank says while the upcoming season's milk price will likely be lower, reflecting the current downturn in the global commodity price cycle, there is a firm landing zone expected for new season Australian milk prices.

It says this is due to stronger domestic dairy market returns, a weak Australian dollar and aggressive recruitment and retention strategies by dairy processors in a competitive market for milk supply.

Report author Michael Harvey says these factors are providing a buffering effect to the full extent of global pressures.

With the June 1 deadline approaching for minimum milk price offers from Australian dairy companies, the bank is forecasting minimum offers for new season milk in southern Australia to be between $8.50-$9 a kilogram of milk solids.

"At worst, this represents a 10 per cent decrease from 2022-2023 prices and a farmgate milk price that is well above the medium-term average for southern Australia since the introduction of the industry's Dairy Code of Conduct in January 2020," Mr Harvey said.

"Another season of historically elevated milk prices will support farmgate margins."

The report, titled Looking for a Firm Landing Zone, says there is welcome relief for dairy farmers from a recent record-high cost base, with lower prices for purchased feed and fertiliser now flowing through.

"Even if some dairy farmers see an easing in minimum price offers, this should come with cost relief," Mr Harvey said.

Global feed benchmark prices are down compared with last year, although still above medium-term averages, while local wheat prices are tracking close to global trends.

"Locally, grain supplies are high, after several bumper winter crops, with the prospect of another decent winter crop this year meaning feed supply will be adequate for buyers and will help to dampen feed supply risks," he said.

Mr Harvey said Australian dairy farmers will already be seeing the benefits of a significant correction in global fertiliser prices.

"Looking forward, the bank expects the underlying fundamentals in the fertiliser market to lead a period of price stability," he said.

However, the Rabobank Outlook warns, there will still be other cost headwinds on farm in 2023-2024 including higher interest rates and it says labour is a major headache.

The report says milk prices in a number of dairy-exporting regions around the world have already fallen, following the large decline in global dairy commodity prices seen since their peak in the first half of 2022.

"Since that time, prices in the dairy commodity basket have fallen significantly on the back of a shift in underlying fundamentals in the market," Mr Harvey said.

These included a return to growth in milk supply across most dairy-exporting regions, coupled with softer domestic demand, sluggish import appetite from the world's largest dairy importer China and widespread demand 'rationing' in many dairy markets across retail, food service and ingredient channels.

As a result, Mr Harvey said, returns for Australia's dairy product mix have fallen between 30 per cent and 40 per cent compared with the same time last year and are now at, or below, average returns of the previous five years.

Rabobank says increasing growth in milk production in export regions through 2023 and largely absent Chinese buyers until the second half of the year will keep downward pressure on global dairy commodity prices.

"However, at some stage the cycle will turn and global commodity prices will begin to increase, but this will depend on when China returns as a meaningful buyer in export markets," Mr Harvey said.

Locally though, Australia's domestic market returns have reset for the better.

Mr Harvey said the domestic market is experiencing a structural increase in consumer prices across the dairy aisle, led by drinking milk and cheese in particular.

This is important as it will support the value chain and lead to stable farmgate milk prices over multiple seasons for those milk producers supplying the domestic market.

However, Australia's dairy supply chain continues to be challenged by a declining milk pool.

The report says in 2022-2023, the annual availability of milk for manufacturing will fall below six billion litres, for the first time since 1990.

UK trade opens

AUSTRALIAN farmers have received some good news with the long-awaited Free Trade Agreement with the UK finally coming to fruition. This agreement is expected to increase two-way trade between Australia and the UK, which was valued at $10 billion in 2022, and making it easier for young people to move between the two countries for work.

While it may take time for products to appear on supermarket shelves, and restaurant menus and be regarded as mainstream fare, King Island produces premier, world-class products – beef, sheep meat, rock lobster, and dairy, that stand to benefit in the longer term.

The FTA will have a significant impact on the Australian export industry as it eliminates tariffs on over 99 per cent of Australian goods going to the UK, including wine, rice, honey, most seafood, processed foods, nuts, fruit, and vegetables. Furthermore, the FTA includes bigger quotas and tariff reductions for beef, sheep meat, sugar, wheat, and dairy.

Under the agreement, beef tariffs will be eliminated after ten years, and during the transition period, Australia will have immediate access to a duty-free quota of 35,000 tonnes, rising to 110,000 tonnes over ten years. Similarly, tariffs on sheep meat will also be eliminated after a decade, and quotas will be increased.

The FTA also includes an increased age limit for working holiday visas to 35 years and extends the time people can stay to five years.

Farmers are hopeful that this will increase the number of people coming to Australia for seasonal work.

King Island Courier
A Beacon for the Community

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King Island Courier
A Beacon for the Community

Names through the decades

TROY SMITH

LOOKING back 100 years, the North Football Club held their AGM on April 25, 1923 and Mr F Summers presided over it.

The elected officials were Mr G P Huxley president and Mr H J Williams secretary. KIFA delegates were Messrs G Jaynes, R Crack & H J Williams. Committee Messrs J Broomhall, R Hutton, E Wicks, A Conley, A Stillman, A Grave, R Young, R & H Crack.

A CENTURY later some of the island footy players' surnames are still recognised, although Pegarah FC no longer exists.

On May 12, 1923, Pegarah Football Club won by 24 points in a point-scoring fest in Currie with a strong Easterly blowing. PFC 9-15-69 d CFC 4-21-45. Pegarah goal kickers were F Fiske 3, J Clemons 3, O Johnstone 2, H Strickland 1. CFC goal kickers were W Dolliver 3 & C Warren 1.

Harry Strickland was best on the ground with great support from J Clemons & S Hardman. W Dolliver, C Warren & C Huxley were Currie's best.

IN THE next game on May 19, North was playing on their new ground at Yambacoona against the Currie football club, where a close game resulted in a 5-point win to Currie.



KIFA president Jan van Ruiswyk, left, with Vernon Philbey who 50 years ago this week rucked well for Currie.

Umpire Davies had jurisdiction.

The visitors scored well in the last quarter to take victory. Currie 5-11-41 d NFC 5-6-36.

The goal kickers for Currie were Leach 2, Warren, Seaton and Dolliver 1 each. For North - Lott, Summers, Wilkins and Bennett all booted 1 each. No best players were named.

FAST FORWARD to 50 years ago to this footy fortnight, Grassy's foreign legion was no match for Currie and not too different to the start of the 2023 season.

The players of that day are no longer running, punting and contesting on the field, but can be found watching the game at the Currie oval, and are still active in the game in some way.

IN 1973, the Hawks had 12 new players in for their first game of the year and they didn't gel well enough to overcome Currie in Currie.

It was reported that a few players were still short of a run and conversely, the ground was in perfect order and the conditions blustery. Currie booted a 5-8 to 1 goal in the opening quarter.

Drop kicks were a feature of the game with Vernon Philbey rucking well and the Currie on ballers were good at his feet. Currie peppered the goals being 11-18 to GFC 5-1 at half time.

Peter Stephens, D Munro & R Cooper were doing well in defence for Currie and the floodgates opened with J Triffit & P Power providing some drive to Doug Bell and Kerry Colgrave who enjoyed a feast in the middle and up forward. D Richards, P Loring & R Conley were working hard for Grassy but were overrun.

CFC 24-28-144 d GFC 9-5-59.

Goal kickers for the CFC were K Colgrave 7, D Bell 4, C Burley 3, I Hay 3, R Vokes 2, R Power 2, J Triffit1, P Power 1 & R Morrison 1. For the GFC; N Gonzalez 3, P Loring, R Bird, I Wiseman, R Conley, G Conley & D Muggleton 1 each.

Best players for the CFC were Kerry Colgrave, J Triffit, Colin Burley, Vernon Philbey, D Munro, R Cooper & Doug Bell and for the GFC, D Richards, N Gonzalez, R Conley, P Loring M Abrahams.

Grassy won the juniors 11-8-74 d CFC 6-7-43. R (Ricky or Ray?) Taylor kicked 7 goals, W Blake 2, Ricky Munday, D Kaine 1, and Jim Sartori 1 for the winners. J Bruinwood 3, D Anthony 2 & J Keys 1 for Currie juniors.



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Rural Alive & Well was established in Tasmania in 2009 and operates Statewide, including King and Flinders Island, with staff currently visiting the islands bi-monthly.

Rural Alive & Well provides a free, 24 hour phone service - 1800 RAW TAS. This service is available 365 days a year, including public holidays, and connects callers with RAW's on the ground support staff.

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Last year's state budget ignored some long-awaited south-west projects, but are they likely to get funding from a debt-ridden government in 2023?

Will budget deliver for south-west?

POLITICS

BY BEN SILVESTER

Region

THERE is a long list of projects waiting for funding across the south-west as the state budget approaches, but with election promises to deliver and government debt levels mounting, are any of them likely to feature on Tuesday?

Last year's budget brought funding across a range of areas - $250 million for new VLocity trains, $39 million to rebuild Camperdown's Merindah Lodge aged care home, $12 million for Budj Bim, $7 million for school upgrades, and some modest road funding - but all the high priority projects earmarked by local MPs and councils were overlooked.

Top of the list was The Lookout drug and alcohol rehabilitation centre in Warrnambool, which would need up to $36 million, but has consistently missed out on funding for five years despite being "shovel ready".

Warrnambool's crumbling breakwater, which needs at least $8 million, was also overlooked, as was the $10 million plan to renovate Koroit's main street. The successful scheme providing tens of thousands of dollars to local farmers to build cattle underpasses, was also scrapped amid deep cuts to the Department of Agriculture.

Since the 2022 budget the Warrnambool Surf Life Saving Club has finalised its $12 million plan to replace its dilapidated facility, which earned a funding pledge from the opposition in the lead up to November's election, but never got Labor backing.

The Andrews government made many of its own pledges throughout the south-west before the election, which it will have to account for on Tuesday. Cutting the price of V/Line tickets from nearly $80 to just $9.20 is expected to cost the government more than $200 million over the next four and a bit years.

Labor also pledged more than $23 million for south-west school upgrades, $5 million for a Building Innovation and Design Centre at Warrnambool's Deakin campus, a share of $116 million for a new tech school at South West TAFE, and a $5.5 million PET scanner for the Warrnambool Base Hospital.

Both Daniel Andrews and Treasurer Tim Pallas have lowered public expectations about the coming budget, with the Premier warning "very difficult measures" were on the way, which makes any funding beyond election commitments unlikely.

But both Moyne and Corangamite Shire councils have said they're hopeful of extra funding for refurbishing the arterial roads managed by the state government. South West Coast MP Roma Britnell has also pushed for more funding for the roads.

Warrnambool City Council is looking for at least $10 million to fund its transformation of Brierly Recreation Reserve and is in the early stages of a multi-million dollar plan for overhauling AquaZone, for which it has pushed for funding for years.

The government has invested more than $1 million in temporary housing for essential workers, as well as nearly $30 million for social housing in Warrnambool, but the latest data shows more south-west residents on the verge of homelessness than ever before.





ConocoPhillips

Community Information

Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Sessions:

Warrnambool
Archie Graham Community Centre
Monday 29th May
6 - 8pm

Port Fairy
Star of the West Hotel
Tuesday 30th May
6 - 8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com T: 07 3182 7122

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School to get $5m revamp

EDUCATION

BY KATRINA LOVELL

Warrnambool

AN ELECTION promise for a $5 million upgrade of Warrnambool's Our Lady Help of Christians school will go ahead after funding was set aside in Tuesday's state budget.

Principal Stephen Madden welcomed the commitment which will mean its senior pupils can eventually move out of the portable classrooms.

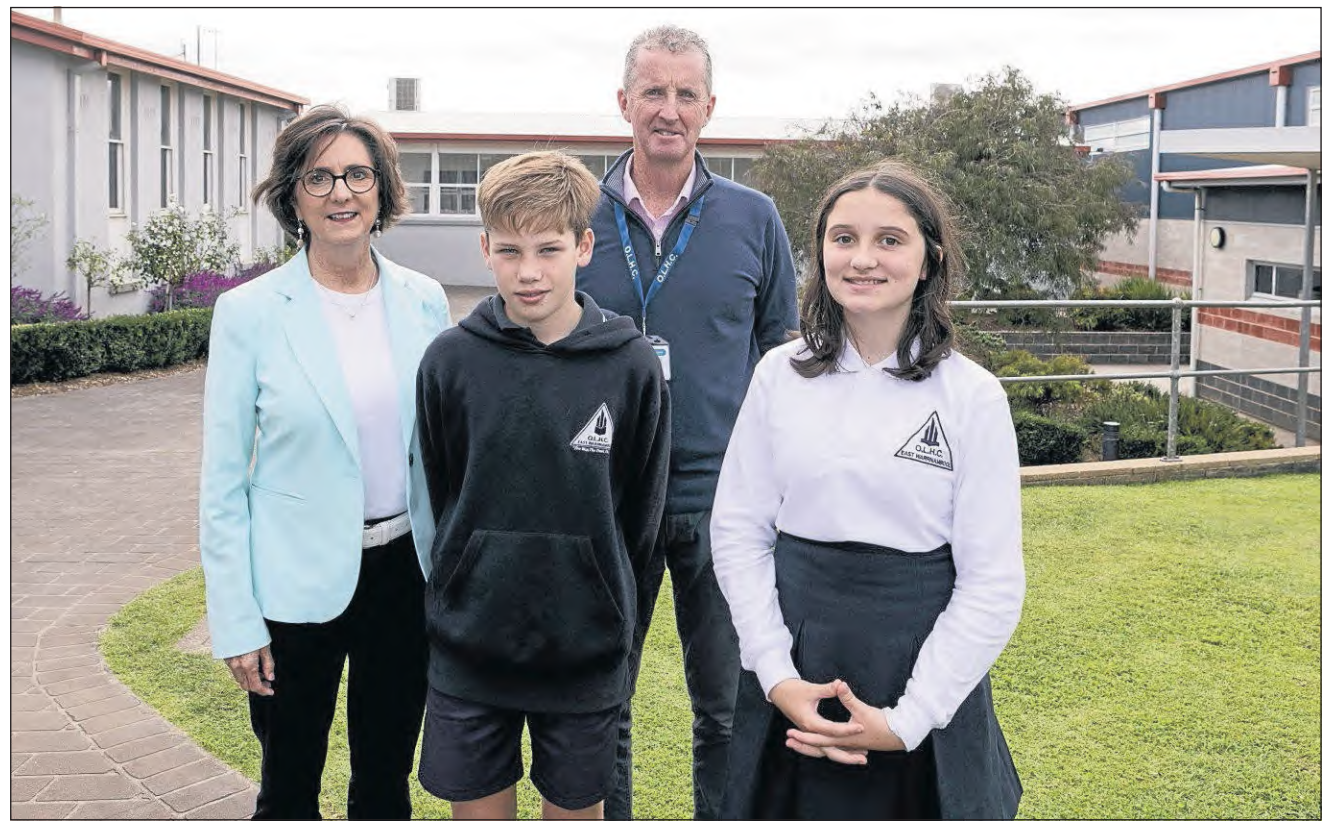
"We'll build purpose-built boomerang-shaped grade 5 and grade 6 classrooms with a gathering space," Mr Madden said.

The school is busting at the seams with enrolment over the past 10 years going from 290 pupils to 480 next year.

"It's grown significantly," Mr Madden said.

He said it was now the third biggest Catholic primary school in the diocese which runs from the ocean to the Murray River.

Warrnambool's St Joseph's Primary School is the biggest and Mildura the second biggest.



Labor MP Jacinta Ermacora confirms Our Lady Help of Christians school will get its promised funding, which was welcomed by principal Stephen Madden and school captains Finn Byrne and Lara Janesch. Picture by Anthony Brady

The new grade 5 and 6 wing will be built on the school's basketball court so it doesn't interfere with the operation of the school.

It would also replace three of the four portable classrooms which currently housed the senior pupils, Mr Madden said, with the school planning to retain the newest portable for now.

The new building is stage two of the development plan for the school which started with a junior wing that was built in 2018.

Stage three will include a new administration area, library and classrooms for its grades three and four pupils.

Mr Madden said the school held its prep parent information night this week, but staff had to clear out the library to do that.

"We don't have a room to put people. Staff meetings are still in classrooms," he said.

Mr Madden said the staff room was built to cater for a school that had a population of 200 and it was now more than double that.

The school has about 60 staff working full-time and part-time.

Mr Madden said it was also exploring the option of having a kinder on-site in future years.

He said it was something the school would have to explore with the state government's childcare reforms coming into effect with an increase in three-year-old kinder hours.

Mr Madden said now that Warrnambool's schools all came under the one parish, there were no school zones.

"It's a perfect storm for us in terms of growth - it just gives us some challenges in terms of logistics," he said.

Member for Western Victoria Jacinta Ermacora said the government was supporting low-fee schools because it had a priority of supporting all children regardless of where they were learning.



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ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and is hosting a community information session to outline the proposed exploration activities and the decision-making process.

Residents and all relevant persons are encouraged to come along to meet the project team, learn more about the proposed activity, ask questions and provide feedback.

Date: Wednesday 31 May
Location: Portland Yacht Club
Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

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Old site set for a new life

LOCAL GOVERNMENT

BY JESSICA GREENAN

Ecklin South

PART of a 22-hectare quarry nearing its end of life in Ecklin South will be turned into a hard waste recycling facility.

The proposed facility, which would be used to crush and blend concrete and bricks for further civil and construction use, was approved by Corangamite Shire councillors at a monthly meeting on Tuesday night.

The planning permit was granted subject to conditions to address one objection which was received concerning amenity and health impacts (noise and dust), application information detail and planning policy response.

Central ward councillor Laurie Hickey said the extensive list of requirements gave him the confidence to vote in favour of the proposal.

"Resource recovery is something very important to us as we move towards making roads and footpaths we need," he said.

"This is the best outcome for the site considering it's an unused quarry."

Deputy mayor Geraldine Conheady agreed with Cr Hickey.

"We're making the most of our resources and materials through re-use and re-purpose," she said.

"I do think this activity is unlikely to introduce any significant variation to the quarrying activity that's carried on there for some years up until now.

"Another quarry continues to operate nearby which again indicates there's not much variance in terms of the activity occurring."

Under the proposal, a segment of the quarry floor would be established for hard waste recycling including bricks and concrete sourced externally from projects and demolition, which would be crushed and blended for further use as road base.

It would also be used for the stockpiling of raw materials, crushing and screening equipment and space for vehicle loading and movement.

No fixed infrastructure or buildings would be established on-site.

The proposed hours of operation would be from 7am-6pm Monday to Friday, with no weekend activity.

Toy library demand surges

COMMUNITY

Warrnambool

DEMAND for Warrnambool's toy library has surged with families looking to spend less on children's toys during the cost of living crisis.

With half of the $220 million Australians spend on toys each year ending up in landfill within 12 months, its members are conscious of their environmental footprint.

The group received a Warrnambool City Council grant of $5000 to purchase high-quality sustainable toys made from wood and recycled plastics. Committee member Jymia Payne said it had more than 1000 toys, 135 active members and it was only getting busier. "Toy libraries, like ours, play an important role in the community by reducing the number of toys ending up in landfill, as well as offering affordable access to a wide range of toys," she said.

Ms Payne said parents were mindful of their consumption and wanted to provide engaging, educational and age-appropriate toys and activities, many of which were transitory or costly items with a short lifespan.

Committee member Stephanie Tuisuva made a conscious effort to not buy any new toys for their third child Isoa, 2, due to budget, environmental and space reasons. "I come and get toys for all of our kids," she said. "It's been fantastic. It means I can refresh their toys every fortnight whatever developmental stage they're up to."

Ms Tuisuva said its gold membership - $100 annually - was its most popular.

Visit the group's Facebook page or email warrnambooltoylibrary@gmail.com for information.

– MADELEINE MCNEIL



Warrnambool Toy Library's Jymia Payne says its numbers are increasing as families look for affordable and sustainable solutions. Picture by Anthony Brady



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Sessions:

Warrnambool
Archie Graham Community Centre
Monday 29th May
6 - 8pm

Port Fairy
Star of the West Hotel
Tuesday 30th May
6 - 8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com T: 07 3182 7122

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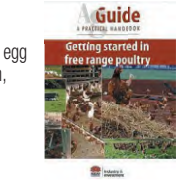
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Brian Hancock opens the bidding on this property in Nelson Street, which eventually sold for $755,000.

Homes sell, 'market cools'

REAL ESTATE

BY **KATRINA LOVELL**

Warrnambool

A CENTRAL Warrnambool home that has been in the same family for 70 years sold at auction on Saturday.

The three-bedroom property in Nelson street sold for $755,000 to a local family.

More than 30 people watched the auction, which kicked off with a vendor's bid of $700,000.

It only drew one bid of $725,000. After discussions with the owner, it was placed on market with another vendor's bid of $750,000 before a single bid of $755,000 sealed the deal.

Auctioneer Brian Hancock, of Brian O'Halloran and Co real estate, said there were signs of a correction in the market or of a slow down.

"The owner is happy and the buyers are happy too," he said. "It was good fair price on both sides."

It was among three Warrnambool properties that sold at auction at the weekend.

Three bidders battled it out for a two-storey, three-bedroom unit in King Street which sold for $445,000 - which was above the advertised price range of $390,000 to $429,000.

A cottage in need of renovation on half an acre in Moore Street was passed in on a vendor's bid of $500,000.

About 50 people had turned out for the auction of the property which has the potential for development or subdivision, but it failed to attract a single bid.

The listed price range for the property was $599,000 to $650,000.

A three-bedroom house in Breton Street in north Warrnambool sold for $460,000 under the auction hammer.

Bidding opened with an initial bid of $400,000 followed by a vendor bid of $420,000 before a final bid of $460,000.

Mr Hancock said changes to land tax announced by the state government this week which hits landlords and those who own a second property were not going to help the situation.

As part of measures to pay back debt the state government racked up to pay for its pandemic measures, a suite of changes to land tax rules that will begin on January 1, 2024 lowers the tax-free threshold for general land tax rates from $300,000 to $50,000.

Landholdings valued between $50,000 and $100,000 will attract a fixed $500 charge each year and those between $100,000 and $300,000 will incur a $975 charge.

Landholdings worth more than $300,000 will attract an additional charge of 0.1 per cent of every dollar above $300,000. "It's put a lot of fears into landlords and second property owners with this prevailing land tax," he said. "You've got to look at what bracket creep is going to do to it over a period of time - over a period of years.

"It's going to be interesting over the next six to 12 months what the knock on effect is going to be."



The prime parcel of land, located near Gateway Plaza in the city's east, is on the market for the first time.

Commercial land on market

ONE of the last commercial-zoned allotments in east Warrnambool is on the market.

The 1268-square-metre block is being sold by Ray White Warrnambool.

Agent Jason Thwaites said the parcel at 29 Gateway Road was expected to fetch between $550,000 and $600,000. "Its proximity to major retailers and exposure is ideal," Mr Thwaites said.

He said the listing was attracting strong interest.

"The property has been listed for a week and we have fielded a range of local and national interest," Mr Thwaites said.

"It could suit a range of uses for retail and service industries."

Mr Thwaites said there was a healthy appetite for commercial properties in the city. "There is an under-supply of commercial properties," he told *The Standard* earlier this year. "As the area grows, new businesses want to come to town and existing businesses are looking to upsize."

It is the first time the parcel, which is located next to Wannon Water, has been listed for sale.

– MONIQUE PATTERSON

ConocoPhillips

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100TH BIRTHDAY

ARTHUR NEVE

31/5/1923

Congratulations Dad, Pop & Big Pop on reaching your 100th - Colin & Jill, John & Margaret; grandchildren Danielle, Bianca, Andrew, Jane, Matthew & their extended families.

HAPPY 100th BIRTHDAY!



POP (Arthur Neve)
31st May 1923

Here is to an incredible century of memories and experiences! You have done more than most people could ever dream and are such an inspiration to your family and friends. I'm so grateful to have you in my life and I cherish every moment I spend with you. May your 100th Birthday be as fabulous as you are! Big hugs and love.
- From Danielle, xxoo.

♥♥

HAPPY 100th BIRTHDAY!



To Dad / Pop

Happy 100th Birthday! You've made it to a milestone that not many people reach and you deserve to be celebrated. You've accomplished so much in your life and you are an inspiration to us all. Wishing you all the best on this special day.
- Love Colin, Jill, Danielle, Bianca and Scott, xxoo.

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DEATH

PAULA BEAVIS

We are sad to share the news that Paula Beavis, wife of Ashley, passed away in hospital in Perth on 25th May with Ashley and her family by her side.
- From Beavis family.

BUTTERFIELD - Jacquie, passed away 26th May.
Beloved wife of Jack Sheridan.
A very dear friend and entertainer extra-ordinaire, Jacquie Darnell. You will be missed at our Friday Happy Hours.
With love.
- Rosemary Parker.

DYSON - Colin Frederick "Lindsay". Passed away peacefully on 25/05/2023 Aged 91 years. Loved Husband of Lola (dec). Loved Father and Father-in-Law of Daryl, Craig, Sue and Tracey. Loved Pa of all his Grandchildren.

MEWETT - Shirley.
Special memories of my dear friend for 60 years.
Rest in peace Shirley.
- Love Jean, xx.



FUNERAL

CHARLTON - The Funeral Service for the late VALERIE DAWN CHARLTON is to be held at ST STEPHEN'S ANGLICAN CHURCH, Julia Street, Portland on THURSDAY the 1st of JUNE commencing at 10AM. Privately cremated.

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DYSON - The Funeral Service for the late COLIN FREDERICK "LINDSAY" DYSON is to be held at the PORTLAND UNITING CHURCH, Percy Street, Portland on FRIDAY the 2nd JUNE commencing at 10.00AM.

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PUBLIC NOTICES

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Time: 6-8pm

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
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- Farmer (July edition), Sheepvention Preview
- Spectator (July 29) Sheepvention Supplement

DEAL #3 Advertise in
- Spectator (July 29) Sheepvention Supplement

Booking & editorial deadlines:
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Bill passes on role after 30 years

AFTER 30 years as Cobden CFA brigade captain Bill Nelson is preparing to pass on the mantle.

He said he is stepping down from the role at the end of the month, with Dale Robertson taking on the position.

Mr Nelson said he believed it was time for a change after 30 years.

"I'm just stepping down from the captain's role to let the next generation have a crack," he said.

"I feel like it's a good time, I just decided after 30 years it's time."

Mr Nelson's involvement with the Cobden bridgade spans 50 years.

"I joined to be part of the competition running team in 1973," he said.

"We're a happy team, we get along well together – that's the positive thing for me."

Mr Nelson said there had been many changes within CFA in his time as a volunteer.

"Communication is the biggest thing that's changed I think," he said.

"We all used to be alerted to a call out by the landline and the siren.

"We all have pagers now, that's been a big positive.

"The equipment is so much better too."

Mr Nelson thanked the brigade for its support over the three decades as captain.

"Thank you to the volunteers for their support over the years, it is appreciated," he said.

Mr Robertson said he was looking forward to taking on the role.

"We're a good team, it will just follow on from what Bill's done," he said.

"I'm looking forward to the new challenge."

Mr Robertson said his own involvement with the Cobden CFA began when he started in the junior competition team at 11 years-old and progressed from there.

"The old man is a member, that's what got me interested," he said.

"I've been a lieutenant the last 10 years."

Mr Robertson encouraged community members interested in joining the CFA to get in contact.

"Any people interested are welcome to come down to the station, we meet on the first Monday of the month at 7.30pm," he said.



Congratulations: Dale Robertson will be inducted as the new captain at the Cobden CFA unit after Bill Nelson announced his intention to step down from the role. 2023D

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Phones to start ringing

PHONES are ringing as the 2023 Community Satisfaction Survey finds out what residents think of Corangamite Shire Council.

An independent market research company started calling residents earlier this month.

In previous years, the survey has been carried out by interviewing 400 residents in a single time frame.

This year the same total number of interviews will be carried out, but with 100 in each of four separate periods:

- June 1 to July 2;
- August 17 to September 17;
- November 1 to December 3;
- Feb/March 2024.

Mayor Ruth Gstrein said National Field Services was calling randomly selected residents to conduct the annual community satisfaction survey.

"The survey has been designed to assess Council's performance across a range of measures," she said.

"Residents' opinions about council services will be gathered then compared against our performance in previous years.

"The responses will identify ways we can improve our service to our community.

"We appreciate participants taking the time to help us with their valuable feedback."

Cr Gstrein assured residents all responses and personal information were strictly confidential.

"Only the overall results are shared with Council," she said.

"This is a very important piece of work that is done every year and lets us know what we're getting right and where we need to improve."

To reassure householders the calls are legitimate, the researchers will:

- Always identify as National Field Services and introduce themselves by name;
- Never ask for people by name (calls are random and the researchers do not have actual names); and
- Always say how long we expect the survey to take.

Calls will come from a number with the prefix: (03) 9977. This may change over time but no calls will come from a mobile number.

Individual responses are confidential and only the overall results will be shared with council.

Results are expected by the middle of the year and will rate council in comparison to similar sized councils and the state average.

The state government requires all councils to participate in the annual Community Satisfaction Survey.

For more information, call Corangamite Shire Council on 5593 7100

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ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and will be hosting community information sessions in June.

Residents and all relevant persons are encouraged to come along to meet with the project team to learn more about the progress of the environmental impact and risk assessments and the typical control measures that have been identified to support ongoing consultation, to ask questions and provide feedback.

Sessions:

Peterborough
Monday 19 June 2023
12-2 pm
Peterborough Community Hall, Macs Street

Port Campbell
Monday 19 June 2023
6-8 pm
Arts Space, 50 Lord Street

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
T: 07 3182 7122

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King Island Courier

A Beacon for the Community

Vol. 38 No. 26 *Thursday, July 6, 2023* *$1.50*

Dolphin Mine dons hi-viz



COMMERCIAL production of concentrate has started at G6M's Dolphin Tungsten Mine and the first saleable 10-tonnes is ready for shipment this month.

The processing plant achieved 70 per cent runtime processing in excess of 10,000 tonnes of lower to medium grade ore at an average grade of 0.3% WO_3, which produced about 10 tonnes of saleable tungsten concentrate in June.

Preliminary site assays indicate the concentrate produced has achieved average grade of 55% WO_3 and maximum grade of 68% WO_3, the company reported in an ASX statement this week.

"We are thrilled to achieve commercial production within weeks of the first concentrate … our achievement of successfully processing more than 10,000 tonnes of ore in June and producing concentrate ready for sale is another significant milestone for the company and a credit to the hard work and dedication of our site team and contractors.

"We look forward to the first shipment of concentrate which is expected in a matter of weeks," Group 6 Metals managing director and CEO Keith McKnight said.

Islanders turn out for a sneak preview, pages 8&9

The King Island community donned their hard hats and hi-vis to go on tour and enjoy a barbecue at the G6M Dolphin Mine.

Let's get physio

ISLAND HEALTH CARE PETITION

INDEPENDENT Murchison MLC Ruth Forrest has sponsored an e-petition in the Upper Houe on behalf of King Islanders.

The petition called for increased physiotherapy services for King Island to reduce waiting times and to ensure King Islanders get access to physiotherapy in a timely manner particularly in the areas of chronic health care, acute injuries and post-operative patients requiring regular physiotherapy.

Continued page 3

PENSION AGE RISE PUNISHMENT – Page 5

Bomber crash recalled



King Island Cemetery on Tuesday 13 July 1943, around 4.30 pm, during the closing stages of Chaplain Deakin's funeral Service for the crew Beaufort Bomber A9-352. There was a good attendance by islanders including the island's defence members.



The Fargo hearse, owned by the Chitts family, photographed before proceeding with the four coffins, draped with the Australian flag, to the Cemetery on Tuesday 13 July 1943. The hut foundations indicate recent construction and the telephone pole at top right is a now a long gone reminder of the island's communication system.

Pictures: King Island RSL Sub Branch

KING ISLAND RSL SUB BRANCH

IT IS only a few days until two very special commemoration ceremonies that relate to the very strong heart of our island community, and to your RSL Sub branch. We need you on Tuesday 11 July.

The 80th Remembrance Ceremony of the crash of Beaufort Bomber A9-352 will commence at 11am in the King Island Cemetery. This commemorative event has created national interest and will include senior Airforce Officers and a RAAF fly over (subject to weather). We need you!

The descendants of Pilot Officers Bill Edwards, John Kildea and Harold Snell are honouring the island and travelling from the mainland for this commemoration. The relatives of Clarence Leesue, from South Australia, are unable to attend but will be represented by an RSL member. The Lancaster family will be speaking about relatives Buff Cheese and Jack Lancaster, and an RSL member will speak about Nancy Morrison.

The discussion with the families has resulted in two copyright photographs, from the Edwards family collection, that have not been seen since the 1940s. They depict the 1943 funeral, and show how islanders quickly responded to the tragedy.

Jim and Dick Chitts were cartage contractors and their truck became the makeshift hearse. Mr Athol Hill, who knew the brothers well, confirmed that it was their Fargo truck. The photo, showing the four coffins draped in Australian flags, we believe was taken at the King Island aerodrome.

The second photograph was taken at the cemetery during the final benediction by Chaplain Victor Deakin from the RAAF Base, East Sale. When first viewed something was wrong – the graves in the background were outside the boundary. When the image was flipped, all was well but it appeared that the RAAF Honour Guard was saluting with their left hands. In fact they were in the process of removing their hats, and this is probably what confused the photographic developer all those years ago.

The community is strongly encouraged to attend and should arrive at the John Street Currie cemetery by 10.50 am. You are welcome to bring a seat and a lay a wreath, just let Margaret Bennett know so you can be included in the Order of Service. In the case of poor weather an adjacent venue will be used for the main service and this will be announced on the day.

We ask is that you do not stand on any grave and have your phone on silent.

The RSL subbranch will have a second function in the Town Hall commencing at 7.30 pm. This is focussed on the World War 2 King Island Comforts Fund. The list of letter writers is extensive and includes King Islanders who enlisted in the Services, family members, islanders who made donations and service personnel who were not from here.

Ann Ghazarian and her team have spent countless hours cataloguing and transcribing over 600 documents. The following is a list of the majority of the writers. They are in alphabetical order, showing surname first. A number of writers have the same surname and they are listed together. This does not mean they are necessarily related.

Archie Loris and Lorna, Arkley-Smith John, Ayton John, Baker M, Barlow Ken, Barnes Eric, Jeff and Len, Barr Harold, Batten Lewis, Bertram Barbara and Tom, Birch Graham, Birrell Hayden, Blain Jack, Blight Mervyn, Bowling Bruce, Bramich Alfred, Barth Cecil, Mrs O, Broderick Norman, Brooks Claude, Tom and Victor, Brown Keith, Burkett Charles, Burns Frank, Cheese W.(Buff), Clemons Richard, Conley Albert, Connors Stanley, Cooper Freda and Ian, Cornelius Walter, Cox William, Curbishley Ted, Davies Desmond and N, Denby Jessie, Dobson Albert, Drake Harry, Enniss Dick, Farrell John, Philip and Tom, Fisher A and W, French Reg.

Goldsworthy Lindsay, Graham Jack and Jim, Groom Reg, Gunter Colin, Haines John, Harris Bernard, Hays Darcy and William, Heddle J, Robert and Walter, Heinrich Ray, Hill L (Mrs), Holmes Joseph, Hooley John, Hooper Richard, Ibbott Charles, Ims Ron, Jackson Alice, Allan, Ernest and Jim, Jaynes Robert, Johnstone Easton, Joyce Joseph, Keating Jack, Kee Gordon and Joyce, Khyatt Ray, Lacey Keith, Lancaster Jack and Peter, Last A and Harold, Littlejohn Frank, Lonongan H, Lott Dorothy, Fred and Harry, Lynch Kelvin and Les, Mallett James, Manson John, Marshall John, McArthur Robert, McHugh Linda and Max, Milgate Stan, Miller Jean and Sydney.

Milsom Frank, Nance and Ruby, Misson Bert, Monger Roulston, Moon George, Morrison Code, Paterson Donal and Dudley, Percy Royce, Phelps William, Phillips Max, Punshon Eric, Reading Leslie, Ross Len, Rowe Don, Russell Ern, Sadleir Joseph, Scott Mick, Shea Reg, Smith Earl and Raymond, Stansfield Les, Stillman Ron and Stella, Stuart Jock, Stubbs John, Sullivan Jack and Richard, Summers Eliz, Jack and Lil, Tatham George, Tattersall Murray, Thompson Mick, Thow Charlie, Towns Gordon. Viney Alf, Walsh Ambrose, Walters Victor, Watson Carrie, Whitty John, Wilshire John and Tom, Wilson Stan and Victor, Yeomans Monty, Youl Beryl and William.

Some Service files include a photograph of the veteran and these have been recently added to a person's dossier. If you have a photograph of a person named please let Margaret Bennett know – margiejbenn51@protonmail.com

The collection will remain on King Island and will take pride of place in the RSL Sub branch in a controlled atmosphere. The intention is to eventually have online access so all can view the collection.

Don't miss out, so attend the Community Presentation in the Town Hall at 7.30 pm on Tuesday 11 July.

All the records will be there for viewing only (due to conservation and preservation requirements) and there will be a unique 45 minute visual presentation, followed by a question session. Again, don't let the weather keep you away, come and learn how this small island truly united when times were really tough and batted way above the national average.

Hot drinks and snacks will be provided and we ask for a gold coin donation per family.

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A Beacon for the Community

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King Island Courier

Water costs rise a 'modest' 3.5%

TASWater increased water prices by 3.5 per cent from July 1.

The increase was approved by the Tasmanian Economic Regulator (TER) in May 2022.

"The independently assessed and approved four-year price and service plan gives Tasmanians certainty on their water and sewerage bill increases," General Manager Customer and Community, Matt Balfe, said in a statement.

"While price certainty allowed customers to prepare for the modest increase, supporting customers facing hardship had never been more important.

"The 3.5 per cent increase is well below inflation, seeing an average household's water and sewerage bill increase around $11 a quarter – prices in line with the national average.

"We know that parts of the community are doing it tough, so our customer support program is more important than ever.

"For those customers requiring support, it's as simple as calling us on 13 6992."

Mr Balfe explained that TasWater is facing rising costs associated with its operations and maintenance of 170 treatment plants and over 11,500 km of pipeline.

"Well managed water and sewerage underpin community well-being. TasWater is investing $1.4 billion in water and sewerage services over the next five years, delivering further customer and environmental benefits. TasWater's prices are regulated for a four-year period, with its last Price and Service Plan (PSP4) coming into effect on 1 July 2022.

As outlined in PSP4, the TER approved a price increase of 3.5% each year until 30 June 2026," the company said.

For more information on the program visit: www.taswater.com.au/CSP.

Island signs up for healthcare

From page 3

The petition requested the Tasmanian Health Service gain an understanding of the island's unmet needs; extend the number of days that physiotherapists are on the island to enable more appointments and consider a change to the current same day fly-in fly-out approach.

The Premier and Health Minister Jeremy Rockcliff acknowledged in his reply the unique challenges of King Islandand its remoteness.

While he pointed to the Government's healthcare priorities, the response avoided addressing the petition's specific King Island requests and spoke more broadly and descriptively about health and physiotherapy services across the North West.

"Recent changes to the Patient Travel Assistance Scheme aim to address these issues [access to allied health and preventive services which includes physiotherapy]," Mr Rockliff said.

The response to the petition included discussion around healthcare worker resourcing, healthcare scholarships, state budget health services funding and the release for public consultation of the Long Term Plan for Healthcare in Tasmania 2040.



There is a backlog of patients needing physiotherapy services on King Island.

Ms Forrest was disappointed in the response to the King Island resident petition.

"While the response is welcome it failed to address, or seek to resolve, the very real and current challenges faced by King Island residents in terms of timely access to locally provided physiotherapy," she said.

"The specific request in the petition to have physiotherapists visit extended to two days, rather than a fly-in fly-out one day service means residents of King Island have very limited access, and was completely ignored by the Government response.

"To suggest a person can fly off King Island with the support of PTAS for physiotherapy services is again welcome but may be somewhat self-defeating as the trip to and from mainland Tasmania may exacerbate their injury or surgical recovery, they are seeking the physiotherapy care for.

"I appreciate the work of UTAS in commencing training of local allied health workers but this does not assure us of more physiotherapists and certainly does nothing to address the current backlog of patients needing physiotherapy on King Island.

"I was disappointed with the response overall as it completely ignored the very simple and practical solution for the short-term demand provided by the community," Ms Forrest said.

The petitioners request and the government's full response can be read at ruthforrest.com.au/images/Petition_KI_Physiotherapy.pdf

Momentum prices unknown

IT'S unclear whether King Island residents will face power price rises similar to those set for mainland Tasmania.

Electricity prices in Tasmania are set to rise from July 1 by 9.51 percent following a ruling from the independent Economic Regulator. It's expected to add around $200 a year to the average electricity bill.

Momentum Energy, part of energy generator HydroTas, is King Island's retail electricity supplier. A request for information to Momentum Energy regarding the 2023/24 pricing and tariffs was not received before going to print.

Momentum's Bass Straight Islands prices, tariff and charges for King and Flinders islands are reviewed annually and any changes are generally reflected in billing after August 1.

The Tasmanian Economic Regulator (TER), Mr Joe Dimasi, approved mainland Tasmania's proposed 9.51 per cent increase in standing offer prices under regulated tariffs for Tasmanian residential and small business customers to apply from 1 July this year to 30 June 2024. Mr Dimasi said that Tasmanian bills are among the lowest in the nation.

Both the Australian and Tasmanian governments are offering $250 rebates for eligible households to help offset the increase and separate rebate of $650 is available for eligible small businesses.

Local community grants

THE King Island Council has announced the recipients of its Community Assistance 2023/2024program.

The council allocates funds through their Policy, Sponsorship – Financial and In-kind program which offers the opportunity for organisations within the King Island community to apply for funding under its Community Assistance Program. The Council Budget for the program is $30000.

A total of 10 applications were received, with the combined total cash sponsorship request of $15,466.00 and $6,800 in kind support.

The cash recipients were: Festival of King Island $2,500 (+ in kind); King Island Community Radio $2,500; King Island Football Association $2,500 (+ in kind); North Football Club $2,258; King Island Show Society $708 (+ in kind); King Island Netball Association $2,500; King Island Landcare Group $2,500

Total In-Kind recipients were: King Island Community Car Inc $2,500 (in kind - fuel); Festival of King Island $3,505.68 approx. (in kind); King Island Show Society $795 (in kind - portaloos); King Island Football Association Assistance to install cupboard.

The Council agreed to the King Island RSL Sub Branch project amendment for previous grant funds provided for the remaining amount of $946.53.

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PLUS MANY MORE SPECIALS IN STORE AND ON FACEBOOK

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IGAV19252_050723

Joc making music with angels

OBITUARY

TRACEY COLLYER

JOCELYN Bowden was many things to many people, a gardener, a farmer, a Nana, a crusader against injustice.

But to me she was a musician. I've been making music on King Island for two decades and I made most of that music with Joc.

I had been on the island just six days when Joc called me out of the blue.

"I hear you play clarinet? Do you want to join some bands". By the end of the week, I was in five of them.

As the Music Makers dwindled in members, we found new opportunities to regroup and play music.

From playing at Netherby Home, to Senior Citizen's dinners, to the Imperial 20, to Christmas street markets, Joc was always the one to find reasons to spread joy through music.

As Joc's feet began to fail her, (a side effect from the medication she was on for rheumatoid arthritis), she could no longer operate the kickers on a drum kit. This didn't stop Joc collecting an array of percussion instruments, handing them out for audience participation at every opportunity.

When Tim Woodburn, of 40 Degrees South fame, offered to teach a ukulele group, it went without saying that Joc and I would embrace this new way to make music together.

From humble beginnings in a cold, damp artist's space in town, we have become an all-inclusive group, encouraging anyone and everyone to pick up a uke, rattle something, or simply sing along.

We even had our 15 minutes of fame with the nationally broadcasted Ukecantbeserious song 'Stewy Get Gold'.

But it was always Joc that collected and encouraged new members to join. Because that's what Joc did. She found people and found ways to integrate them into our community. Once Joc found you, you became one of us.

No matter who you were, Joc found something valuable in you. People like her are the glue that hold small communities together. Joc was the very model of resilience and she epitimised the spirit of community engagement.

It was an honour to be included in her network of friendship and creativity. Vale Joc Bowden.

Jocelyn Bowden loved her music, the community and was always there.



Jocelyn Bowden loved her music, the community and was always there.

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Cemetery fees rise

THE King Island Council 2023-24 budget 5% increase included King Island Cemetery fees and charges.

The new fees and charges are inclusive of GST, where applicable and apply from July 1.

As part of the review the cemetery fee descriptions have been amended for sensitivity and clarity, in line with commonly used terminology and requests made to the council front office.

A burial on private land has been moved from the Council's Development Services fees page to Cemeteries and the fee has increased from $274 to $568 in line with the work and permits required.

The current cost to council to excavate and backfill a straight-forward cemetery plot site is about $660 incl GST.

From July 1 the burial fee - single is $944. A double depth burial fee is $1,466 for both a first and a second burial, however the latter excludes any costs to uncap a grave. These fees do not include the plot fee -$523, which can be prepaid as a reservation, per single or double plot.

After hours, weekend and public holiday burials will incur a $522 surcharge.

Burial of ashes in an existing grave or Columbarium wall interment fee per niche is $238. A fee of $100, which can be prepaid, has been added for Columbarium wall niche.

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Pension age rise a punishing end

AS of July 1, the qualifying age for the Age Pension increased to 67. National Seniors Australia rejects calls for raising the age to 70 on both fiscal and social policy grounds. NSA chief advocate IAN HENSCHKE writes....



National Senior Australia chief advocate Ian Henschke.

FOR decades, men could look forward to retiring at 65 and getting the pension.

For women, it was 60. Their eligibility was increased over 10 years between 1995 and 2004 until they too reached the same qualifying age.

In 2009 the Rudd government lifted it to 67 for men and women but it was to be phased in from 2015, with six month increases every two years, starting from July 1, 2017. Now we've arrived, after almost 30 years, at a pension age of 67.

Almost 10 years ago Treasurer Joe Hockey announced it would go to 70 by 2035. He asserted it was "highly probable a child born today would live to 150."

Really? His move followed on from a report from the Commission of Audit, which recommended the qualifying age be linked to life expectancy.

The thinking was because we are living longer than our parents and grandparents, we should remain in the workforce longer.

There was a huge backlash including a campaign led by National Seniors.

A popular slogan at the time was: "Only someone who's worked in an office their whole life would think you can work until you're 70."

In the run up to the 2019 election Scott Morrison dropped the age-70 target as Liberal policy.

His deputy Michael McCormack said it was "probably a step too far" adding "I think if you're a tradie, or a brickie, or a shearer in rural and regional Australia you don't want some suit in Canberra telling you you're going to have to work until you're 70," he said.

At National Seniors, we were pleased the government backed away from the unpopular idea and called the decision "a win for common sense".

A group of academics has revisited the statistics and released a report saying a further rise is warranted to ensure the country has a sufficient supply of workers into the future. Macquarie University Business School Professor Hanlin Shang and his co-authors say there should be three more pension-age increases over the next 27 years.

They suggest 68 by 2030, rising to 69 in 2036, and 70 by 2050. Professor Shang says Australia's low birth rate is one of the key factors.

"Less people in the working group and more in retirement will make the old age dependency ratio (OADR) higher," he said.

"What this means is there is less working people to support elderly people. And with more elderly people in the population, this will create a burden for the government pension system." Professor Shang and his team should read, or hopefully re read, "The Age Pension in the 21st Century" by 2018 Actuary of the Year Michael Rice.

He revealed the cost of the age pension as a per centage of GDP will fall, not rise in the decades to come.

There will be far fewer full pensioners, and far more part pensioners and self-funded retirees.

The "burden" simply won't be there. The pension was 2.9% of GDP when Peter Costello's 2002 Intergenerational Report predicted it would grow to 4.6% of GDP by 2042. But it was it was just 2.7% of GDP five years ago, and Rice Warner projected "expenditure to fall to 2.5% of GDP by 2038." It added "the downward trend will continue well into the future."

It's predicted to be just 2.1% of GDP by 2060. Why? Superannuation has been delivering, just as Paul Keating predicted.

His "magic of compound interest" has been adding to the retirement incomes of millions. We reject calls for raising the age to 70 on both fiscal and social policy grounds. Many people exit the workforce because of ill health. We should consider a Canadian style system where you can opt to get the pension earlier but get a bit less. We've also argued the best way to tackle declining participation is to provide incentives to those who choose to work longer.

Our Let Pensioners Work campaign calls for a reduction in the income test taper rates so you can keep more of your pension if you choose to continue working.

This is fairer than raising the pension age because it rewards people who want and need to work.

Pensioners who chose to work would benefit from extra income and their participation would also help the economy.

If you are on a pension, and you want to keep working it'll be a win for the economy, it'll be a win for the pensioners, and it will be a win for the government. A note to politicians, our latest poll of more than 2,000 people showed just 7% support the move to 70, 45% are fine with 67 and 46% want it back to 65.

An election winning policy would be to lower it back to 65 as they've just done in Canada.

Rural health strategy call

A NEW independent report commissioned by the National Rural Health Alliance says that each person in rural Australia is missing out on nearly $850 a year of healthcare access.

This equates to an annual rural health spending shortfall of $6.5 billion and is urgently calling for a National Rural Health Strategy to bring scattered rural health initiatives under one umbrella.

NRHA is made up of 48 national peak professional bodies which include the Royal Flying Doctor Service, Royal Australian College of GPs, health, education, student and primary care bodies and the Indigenous health sector. It determines key issues that affect health in rural and remote areas.

"This is money that could have allowed Australians living rurally to access health and medical services where they live," NRHA said in a statement.

The report looks at health spending per person and reflects the day-to-day realities for rural Australians who are unable to access equitable care.

"Over 7 million people, who make up nearly a third of Australia's population, experience a greater burden from illness and early death, in part due to inadequate funding for their health care. This is despite the significant contribution they make to Australia's economy," said the Alliance Chief Executive Susi Tegen.

"Resources and rural industries generate around 80 per cent of Australia's exports, excluding the extra contribution of rural-based services and manufacturing. The value of agriculture, fisheries and forestry exports is $76 billion, while commodities exports are worth $497 billion – a collective value to the nation of over $500 billion.

"More than 90 per cent of fresh food sold in Australia is produced rurally. In addition, nearly half of the nation's tourism income is from rural Australia and over half a million people are directly employed in rural tourism-related industries.

"Rural people experience a triple health disadvantage: poorer circumstances in terms of social determinants of health, a lack of service availability, and higher costs of access and delivery, all resulting in poor health outcomes.

"Although the government invests in workforce initiatives …to support rural health, these need to be augmented…they still do not sufficiently improve service availability and a patient's access to health care.

"Social determinants of health negatively impact rural people, who are sick for longer periods and end up in hospitals because of inadequate primary care access to doctors, nurses and other health workers.

"Rural communities need government to be more flexible…costs of access and delivery are higher, so the delivery of health care will be different and broader. It does not fit into the model available to urban people," Ms Tegen added.

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Pampas Pastry Puff 1kg Varieties — $6.99 EA — SAVE FROM $1.41

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Cocktail Franks — $9.99 KG — SAVE FROM $2.51

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KING ISLAND COUNCIL

NOTIFICATION OF MAKING RATES FOR 2023/2024

In accordance with Section 118 of the Local Government Act 1993 notice is hereby given that the Council made its rates and charges for the 2023/2024 financial year at the Council meeting held on Tuesday 20 June 2023. The following is a summary of the rates and charges for 2023/2024:

Definitions and Interpretations
In these resolutions:

- "AAV" means assessed annual value as defined in the Local Government Act 1993 (the Act) and adjusted under Sections 89 and 89A of the Act;
- "land" means a parcel of land within the King Island municipal area which is shown as being separately assessed in the valuation list prepared under the Valuation of Land Act 2001;
- Unless a contrary intention is clear, the words and expressions used in these Rates Resolutions have the same meaning as the words and expression used in the Act, or where applicable, the Fire Services Act 1979;
- The exemptions provided in Sections 87(1), 93(4) and 94(4) of the Act apply.

General Rate		Cents in $ of AAV	5.84257
		Minimum	$342.00
Fire Protection Rates	Rural	Cents in $ of AAV	0.26862
	Urban	Cents in $ of AAV	0.33954
	Both	Minimum	$48.00
Waste Management Service	All residential properties	General Waste Management Service Charge	$461.15
		Landfill Levy	$49.60

Ratepayers have the option to pay rates in full or by four instalments. Due dates are: 18 August 2023, 17 November 2023, 19 January 2024 and 15 March 2024.

A penalty of 10% of the unpaid rate of instalment is payable; and Daily interest charge, at the prescribed rate, is payable in respect of the unpaid rate or instalment to the date of payment.

Please refer to the King Island Council Rates & Charges Policy, which alongside a full copy of the resolution is available from the Council Office, George Street, King Island or on Council's website www.kingisland.tas.gov.au

Kate Mauric
General Manager

KING ISLAND COUNCIL

Two full teams p

KING ISLAND FOOTBALL ASSOCIATION

IT WAS good to see that both North and Currie were able to field a full side of 15 players each on Saturday without having to call on top ups from Grassy.

Loki Bell was back for Currie and Max Sainsbury dusted off his old boots to play his first game in quite a while. Glenn Aldridge played for North, also for the first time in quite a while.

Currie won the toss and elected to kick to the tennis court end and were quick to get the ball forward for a strong mark by Tom Graham, but his kicking let him down and the goal umpire only raised one flag. North rebounded from the kickout to see Keenan Fanning mark up forward and he did not miss.

From the bounce Currie worked the ball round to see Jak Youd drift forward, but he to missed what he should have got. North worked it forward again to see Luke Graham mark, played on and dribbled one through for their second. David Vellekoop lined up for a shot and missed but then got a 50 metre penalty for some reason and this time he did not miss.

Young Mathew Button got into a fair bit of the play and kicked a nice goal along the ground from the boundary.

Justin Summers scored a nice goal from the boundary when he grabbed the ball from a throw in and snapped it out of the pack to see it go through just before the siren to see North 32 points up at quarter time.

The second quarter saw Currie start well with a quick goal from Josh Bellchambers. Justin Summers got a free and handballed it off to his brother Jeramy who slotted through a quick reply.

Play was getting tight with both sides working well at times to get the ball forward but unable to convert. Youd copped a heavy knock which saw him leave the ground with the blood rule.

Max Sainsbury took the resulting free and then awarded a 50 meter penalty to kick an easy goal. Sainsbury was in the action again when Currie got the ball out of the center to him, and kicked a big goal from the 40 meter line to see them reduce the margin to 21 points at half time.

The third quarter saw teams once again going in hard for the ball with players getting frustrated at times with how the play was going. Vellekoop had a chance to get North their first goal of the quarter, but he had his points boots on and another goal went begging.

Tom Graham took a strong mark forward for Currie and kicked a nice goal. There was still a bit of heat in the game which saw Fanning get a free and then a 50 for an easy goal. Play out of the center went North's way and a tackle ended up in a bit of a brawl.

Jeramy Summers got a free and a 50 for an easy goal on the siren to see them 27 points up at three quarter time.

Currie started the last quarter well with some nice play to Joel Williams, who had moved forward, and he did not miss. Vellekoop replied for North when he took a pack mark in the square and found his goal kicking boots for an easy goal. North replied with another through Alex Goldsmith who kicked it off the ground and it went through for a major.

Justin Summers was giving North plenty of drive round the ground and from the center. He took a big run out of the center and through to Vellekoop, who was playing his best game this season and kicked his third. Bailey Rainbow was a real workhorse for North in their back line, while Dale Ellis was also giving North plenty of drive round the ground. Josh Bellchambers worked hard for Currie along with Dylan Beecroft and Jak Youd. Max Sainsbury was enjoying his game as he kicked his third for the game. Some clever short passing saw the ball end up with Youd, who was able to convert for Currie. Clint Stretton took a nice one handed mark and went back and slotted it through to see Currie end up going down to North by 21 points.



If Currie had been able to match North in the first quarter, the score line might have been a lot closer, however this was still an entertaining game - apart from the two reports. Next week North and Grassy do battle again. The last time they met things got a bit heated, so it will be interesting to see how both sides attack in this round.

ConocoPhillips

Community Information Session

ConocoPhillips Australia is currently developing an Environment Plan for the proposed Otway Exploration Drilling Program and will be hosting two community information sessions on King Island in July.

Residents and all relevant persons are encouraged to come along to a session of choice to learn more about the progress of the environmental impact and risk assessments and the typical control measures that have been identified to support ongoing consultation.

The content will focus on activities specific to King Island, with ample opportunity to ask questions and provide feedback.

Sessions:

Thursday 13 July 2023
11am-1 pm
King Island Town Hall

Thursday 13 July 2023
6-8 pm
King Island Town Hall

Light refreshments will be provided.

For more information about this event:

E: otway@conocophillips.com
T: 07 3182 7122

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lay a hard game



LEFT: Taylor Cook, Thomas Graham, Keenan Fanning, Josh Bellchambers and Jack Worrall race for the loose ball.



LEFT: Michael Lasky and Justin Summers going head to head

FINAL SCORES

King Island Football Association Scores 1-07-2023

Juniors
North ..... Grassy
2-1-13 3-1-19
2-2-14 8-5-53
4-4-28 12-8-80
6-5-41 16-10-106

North
Goals: Harrison Lincoln 2, G. Freeman 2, L. Reeman, C. Hamer
Best: T. Button, L. Reeman, Harrison Lincoln, H. Johnson, O. Martin, G. Freeman, C. Hamer

Grassy
Goals: T. Berkin 4, P. Cole 4, X. Berkin 2, Chase Osborne, R. Esquerra, Cruz Osborne, C. Stellmaker, C. Harding, R. Payne
Best: L. West, L. Bonner, R. Payne, C. Stellmaker, P. Cole,
Cruz Osborne, T. Berkin, M. Hudson. Coach Craig Constable said it was a great team effort.

Seniors
North ..... Currie
5-5-35 0-3-3
6-8-44 3-5-23
8-9-57 4-6-30
11-11-77 8-8-56

North
Goals: D. Vellekoop 3, K. Fanning 2, Jeramy Summers 2, L. Graham, M. Button, Justin Summers, A. Goldsmith
Best: Justin Summers, D. Vellekoop, B. Rainbow, D. Ellis, K. Fanning, R. Bedenoch
Currie
Goals: M. Sainsbury 3, J. Bellchambers, T. Graham, Joel Williams,
J. Youd, C. Stretton
Best: J. Bellchambers, D. Beecroft, J. Youd, T. Smith, J. Worral,
B. Doherty, R. Jones



The juniors, left to right; Cooper Harvey, Chase Osbourne, Max Poulsen, Rhys Esquerra, Hugh Lincoln, Chase Bowling making the break



Taylor Cook and Dylan Beecroft getting up close and personal.

G6M's Dolphin Mine goes hi-viz



Group 6 Metals general manager Chas Murcott was delighted with the island's support for the mine open day and barbecue.



The King Island community donned their hard hats and hi-vis to go on tour at the G6M Dolphin Mine.

LAST Sunday Group 6 Metals held their much-anticipated open day and tours.

It was a celebration with the community to showcase the operations, explain how it all works, and to mark the important milestone of becoming an operating mine.

After a week of rain and mud, bathed in sunshine, islanders came from far and wide.

"From the lookout in Grassy, you can see the mine and all the activity with the load and haul fleet, but you can't see what's happening over the hill," G6M general manager Chas Murcott said.

"Over the hill is the processing plant, which operates 24 hours a day, seven days a week. We deliberately did that to keep the noise and lights down for Grassy residents.

"We invited the island to come and have a look at the processing plant, which is in operation today," he said.

"More than 185 people booked out the four tours and then enjoyed a company provided community barbecue.

"The tour timeslots were fully booked and we had to turn some away. It's great to see this sort of response. All sorts of people wanted to come on tour – from the old miners who were involved with the previous operation through to little kiddies.

"Some wanted to see big trucks and some because they're interested and supportive of what we're doing," he said.

The company had displays and experts on hand to answer a wide variety of questions.

Various media has reported that King Island is starting a second mine at Bold Head, Mr Murcott said.

"Grassy is the Dolphin deposit – the mother lode – and that's the main deposit.

"Three kilometres north is Bold Head, so it's almost like the Dolphin deposit's been shoved three kilometres north.

"Historically, Bold Head was the first little underground mine and it's where they mined the very high-grade stuff and they left most of it behind.

"We've applied for a mining lease so we can do further exploration, and it'll be in conjunction with this processing plant.

"So, the plan for Dolphin is mining open pit for about six to seven years and then go underground at Dolphin and that's a lower throughput rate through the plant.

"That would dovetail nicely with Bold Head where there's a small pit, and then go back underground adding to what we get out from Dolphin underground.

"We've got six to seven years of mining with the Dolphin open pit before we'll do that.

"There's some drilling and a lot of planning to do, but we can certainly see the 14-year life we've got here at Dolphin getting extended with Bold Head.

"And then of course, we've done drilling around the perimeter of this. We've had some good hits of scheelite at the Investigator site as well. So, it's all about trying to extend the life of the operation and maximise the resource on King Island."

In the future, material from Bold Head, will be trucked to Grassy for processing.

"We've been talking to Whyalla Beef, and we've purchased some land from them," Mr Murcott said.

"The old Hall Road went from Grassy to Graham's Road, and we can truck the material to this processing plant," he said.

ROBBIE PAYNE was impressed and remembers the old mining operation.

"It's very impressive, it's operational for a start. It looks as though it's been put together quite well, and sustainable in the sense of everything that they've used," he tlold King Island TV.

"It's a much bigger and more modern operation than the previous mine.

"It's good for everyone on the island."

MARIE REED is a lifetime Grassy resident and worked for the old King Island Scheelite mine.

"I used to work in the mill years ago, doing the samples, and getting them ready to send through to the lab, to be tested," she said.

"That's a long time ago, probably in 1988. This mine is very different.

"It's a lot more advanced with newer technology."

Jarred Perryman said after touring the operations "It's a lot bigger than I expected. It's absolutely amazing.

"I was just expecting a crusher loaded in the back of a truck ... but no, this is an amazing process. It goes from what I guess is just dirt right through to what we see down here, "he said pointing to bags of tungsten.

TRISH MCKENZIE was another who remembers the old mine days.

"The tour was so interesting. It's all absolutely much bigger than I thought. I went underground twice with the old mine back in the seventies, and that was quite scary.

"The whole thing is more complicated than one would think. But technically quite simple.

"It starts off as big rocks. It goes through all this. It gets shaken into very small dust. And there's your final product. So very clever."

JAN VAN RUISWYK worked at the old scheelite mine when it was all underground, starting in mill maintenance and later as a fitter at Bold Head.

He travelled and on returning to the island he re-joined the Bold Head site until closure and then transferred to underground at Dolphin until it closed.

Jan has been involved with the mine reopening since the beginning as a filmmaker. He has been observing and documenting the restart.

"I have been very impressed how the mine has evolved over the last 18 months. They've had the setbacks, but I have watched it go from what was a sand dune to being an operational mine after so many years.

I'm really appreciative that G6M have let me film its progression," he said.

BILL DE WAARD started at the KIS mine in 1975 and finished in 1990, starting as an underground shift fitter, then a heavy vehicle shop foreman and finally the mine maintenance supervisor.

He didn't expect the mine to reopen, but he is pleased and believes it will bring island growth.

"It's going to bring people to the island and hopefully that will reduce prices.

"The more people that are here, the more consumption." But Bill says that even if he were younger, he wouldn't work for the mine, as he is enjoying the King Island lifestyle and 'living.' He was looking forward to the tour as a new experience, as even though he worked for the old mine, he never

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Freight Connections will commence receiving freight for King Island Wednesday 19/4/23 at the above depot in Wivenhoe.

NOTE: Initially, receival days for delivering freight into the depot will be Wednesdays and Thursdays, 8:30am - 3pm.

Freight Connections will pick up freight Monday - Friday (5 days a week) statewide.

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LEFT: Nearly 200 King Islanders toured the G6M processing plant to see the mine in operation and viewed displays and heard from experts to mark the beginning of production milestone

RIGHT: Jarred Perryman was surprised at the size of the operation.





Robbie Payne was impressed.



Trish McKenzie remembers the old days.



Lee Jefferies was among the hundreds at the open day.



Marie Reed worked at the old mine.



Jan van Ruiswyk has been documenting the growth.



Bill de Waard worked underground at the old mine.

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Beyond the gloom of war

King Island War Memorial Park in Meech Street Currie which houses a library and the King Island RSL Sub Branch and, insets, boards honour King Island's fallen in World War II.

TROY SMITH
KING ISLAND FOOTBALL ASSOCIATION

THE Pacific war had seen the Japanese beaten back onto home territory (but still fighting) and local attention turned to home affairs and in 1945 the possible resumption of the many sports that had faltered because of the war effort. Horse racing, cricket and tennis were all in abeyance during the latter war period. The King Island community was now asked to fill its Victory Loan quota, which was another government organised bond scheme to raise capital.

The local war service fund was still operating and supplying parcels to the services. The armed forces would take years to wind down and forces were now occupying territories, the first POWs would not return until later in the year, however island soldiers were returning home. These service men and women were honoured by many community functions at the town hall as they were delisted.

A war memorial was proposed and ideas for its design were presented to council, where the idea of a library building was received favourably. Against this backdrop the KIFA met at the Druids Hall on March 16 where the Currie, North & Grassy football clubs decided to get the great game up and going again as soon as possible.

The KIFA president was Mr L C Ross and Mr J V Dolin, the Secretary. Ern Morrison, Tyson and Charles Burkett were the CFC delegates, Owen Horton and Len Burnett for the GFC and Arthur Deanshaw and one of the Graves were the delegates for the NFC.

The KIFA had to apply to the Commissioner for Transport & Rationing to gain approval for the securing of the 12 footballs needed and the guernseys. They would also have to apply for permission to use a bus and fuel for transportation. Footballs were allocated and transportation approved by the government in time for the season to begin in May.

The Association adopted the rules of the VFA, and Coad Morrison and Len Murray were appointed central umpires. Mr W Anderson offered to provide a trophy for the Best and Fairest player for the season. The KIFA decided on only 4 rounds of football as they gingerly trod back into the establishment of some sort of sporting normality. Mr Ern Morrison was still the CFC president and as Council Overseer he organised the necessary repairs to the ground. Mr L Fenner offered to cut and erect the goal posts and the Currie football club organised a scratch match for the following Saturday. No results were found for this match.

The season opener was played on May 19, 1945, when Currie met Grassy at the Currie ground. The ground was deemed ideal for football and there was good spectator attendance, but the players were "…unfit due to a lack of training."

The first official post WW2 KIFA game resulted in Currie 12-11-83 d Grassy 7-10-52, with new umpire Len Murray in charge of the game. For Currie, Tyson booted 4 snags, Rig Johnstone 3, Phil Farrell 2, R Starling, R Butler and Des Barnes 1 each. Grassy had Bryan with 3, Ted Porter 2, Harvey and William Groom 1 each. Currie then walloped North by 131 points, kicking 21-14-140 to 1-3-9, with Rig Johnstone kicking 8 goals and being named best on ground.

The NFC were in very uncharacteristic poor form at this time getting another drubbing the next week at the hand of Grassy 14-31-115 d North 7-14-56. North saved somewhat by Grassy's record point scoring! Ted Porter was best on ground and kicked 6 goals for the green and golds. Des Barnes and Stan McHugh were granted clearances from the CFC to the NFC and an 'ugly man' competition was organised as an Association fund raiser. Imagine being nominated for that prestigious title! Grassy beat Currie by 10 points in the next game whilst Currie defeated an improving North side by 9 points, with Jimmy Graham picking up BOG honours. North then readjusted their compass and got a 33-point win over Grassy with Des Barnes, Keith Revil (NFC) and Ted Porter (GFC) being named the best players. Currie then won a nail biter by 1 point over Grassy in a low scoring game. Bill Morrison was likely BOG with Ted Porter again noted. North continued their resurgence with a 39-point win oner Currie with Keith Revil again being named as BOG and then North also got over Grassy by 32 points with Ted Porter deemed as the best man on the ground and K Revil was noted. Currie defeated Grassy in the next game by 10 points wrapping up the minor premiership with Rig Johnstone booting 6 goals, Jim Graham (CFC) and D Da Rui (GFC) the pick of the players. The NFC were undaunted though and overcame the Currie side (with only 15 men) in a very wet game by 22 points and according to the newspaper report, "North could draw level with Currie on wins and losses" with A Grave being the most conspicuous in this game for North.

Someone hadn't done their homework as this clearly wasn't the case as the next week Grassy 13-16-94 d North 8-10-58 in another wet match, leaving Currie officially on the top of the ladder with 20 points, Grassy 16 points and North 12 points. A Grave was again prominent, with Grassy's win being determined as a team effort.

The semifinal was played on the 13th of August in wet and windy conditions (normal) with North regaining their threatening late season form to beat Grassy in a spirited close game 10-16-76 to 9-13-67. North goals were kicked by George Summers 5, Jeff Summers 3, Mick & Geoff Scott and Grassy's by Ron Smith 3, W (Ted) Porter 3, F Purton, J Kummrow and Frank (Pop) Elliot. The best players were Jeff & George Summers, Geoff Scott, A Grave, and Des Barnes for North. GFC were best served by Reg Phillpott, Ted Porter, Ron Smith, F Purton, S Harris and William Groom.

On the 17th of August the war in the Pacific was officially over and it seems that on this joyous occasion, it was strangely business as usual on King Island. The next day, the Grand Final was played with no mention of any special event to mark the end of the war, although a V-P Day celebration was organised with a well-attended sports meeting and children were given a piece of fruit and bag of sweets.

The football season was far from done as the in form North side defeated Currie at Yambacoona in the Grand Final necessitating a challenge Grand Final to be played. NFC with 35 scoring shots 8-27-75 played a more systemic game than their rivals and easily defeated CFC 5-7-37. Best for the NFC were Keith Revil, Geoff Scott, A Williams, Des Barnes, Jack Coulter & S Wilson and goals came from, Keith Revil 4, Des Barnes & C Connelly. Currie had the best man on the ground in Jack Palmer. Jim Graham, L Fenner, Max Williams, Rig Johnstone and Ted Curbishley were also named for Currie, with goals coming from L Fenner 3, Ted Curbishley and Rig Johnstone.

Currie as minor premiers challenged and the rematch with North was held at the Currie Recreation Ground, this time with a strong westerly wind blowing. Currie were short 3 men for the opening part of this important game, but they got there midway through the first quarter. North led by 2 points at half time and by 9 points at lemons. Theoretically Currie could over run North with a 4-goal breeze in the last, but it was not to be. North bottled the ground up nicely and neither team could kick a goal in the final term. The press reported North's pace, their superior marking and the crowd apparently got great value for their money. Keith Revil was named best on the ground and was ably supported by Geoff & Mick Scott, A Williams, Willy Grave, Keith Lynch, Jack Coulter and James Cooper. Jack Palmer was noted as "outstanding for Currie until getting injured in the last quarter" and was well assisted by Phil & Tom Farrell, Arthur Marshall, Jack Simmons, Rig Johnstone and L Fenner. North had started the season slowly but had come home like a winter westerly to take out another premiership.

The KIFA organised a Grand Ball and season trophy presentation, however the results could not be found. Thus, the ugly man has faded into obscurity!

We do know that Edward (Ted) Porter (GFC) won the Association Best & Fairest award; Rig Johnstone's career was just starting, and he was the leading goal kicker with 19 goals for the season and Keith Revil was best on ground in the Challenge Grand Final.

Mine teams, the Mill played the Cut in their annual fundraiser at Grassy for the Cottage Hospital match where the Mill 10-22-82 d the Cut 6-8-56. £8 was raised from the gate. No junior games were played.

King Island Courier
A Beacon for the Community

Golf

Cold takes a heavy toll

BUGGY

THE JBS Monthly Mug was played on Saturday. The first day of the financial year was sunny but a rather chilly southerly breeze saw 16 players attack the links golf course.

The mowing teams had very limited time on the course this week due to regular showers. Here's hoping a few dry days to keep the course in good trim.

The winner which was a stroke event saw Tim Barnes hit a 76 nett 75. A solid effort.

Runner up Roger Clemons 77 nett.

Nearest the Pin 3/12 Brendan Strickland

18th Adam Hely

Around the traps

A couple of players failed to finish because it was too cold. These two players were 20 years younger than most of the field. Weak as water.

We have a new player who originates from Japan Taki has taken up golf and plays most days after working night shifts

.He loves the game so welcome to King Island and golf.

Good to see Greg Barratt 79 nett and Alan Aylett 80 nett back on the course. Pity their footy teams didn't get a win at the weekend.

Shot of the day – two actually, both on the 18th. Adam Hely hit a beauty onto the back half of the 18th green – only one to actually get on the green.

The last two players yelled out that they could beat that.

The buggy of Adam was left was left in front of the green – Tim Barnes' hit ended up well short but bounced into the buggy and stayed there.

Lance Anderson tried and ended up 20m into the bushes near the ladies first tee.



Getting ready to play the 18th are Adam Hely, Rab Denby and newcomer from Japan, Taki.

ON THE COURT

KING ISLAND
NETBALL ASSOCIATION
Netball Results -
July 1, 2023

Under 12s
Topaz (9) def Rubies
Best Players
Rubies - J Sims & V Viaen
Topaz - G Smith & H S Towns
Best on Court - L West

Under 16s
Netherby (36) def Neva (30)
Best Players Netherby - K Smith & M Flood
Neva - S Bell & L West

27th June 2023
Seniors
North (38) Match Drawn Robins (38)
Best Players
North - E Nicols & P Williams
Robins - K Jacobson & G Hendricks
Salty's (55) def Grassy (46)
Best Players Salty's - H Lewis & A Jones
Grassy - K Rhodes & D Forrest

King Island Courier
A Beacon for the Community

CLASSIFIEDS

KING ISLAND HOSPITAL AUXILIARY

Notice of Annual General Meeting
(to be followed by a General Meeting)

11am on Wednesday 19 July 2023

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Fiction brings history to life

Shipwreck inspiration

AWARD winning author Michelle Cahill was a recent artis-in-residence at the King Island Arts and Cultural Centre. During her residency she was able to expand her research around the Brahmin shipwreck on the island's west coast in 1854, which is the inspiration and backdrop for her latest novel. Cahill has been announced as the University of Tasmania Hedberg Writer-in-Residence, commencing in Hobart in August and has been long listed for the Australian Literature Society Gold Medal 2023. She writes for us ...



The recent writer-in-residence at the King Island Arts and Cultural Centre Michelle Cahill.

IT IS bliss for a visual artist or a writer to have space, time and the perfect surroundings to create.

Residencies are important because they validate creative labour. Telling stories in visual art, and through books matters, because art is a contribution, a way of remembering and celebrating that enriches our lives as communities.

A writer's occupation is mostly not visible, though it's physically and psychologically challenging, requiring intensity, commitment to the craft, and patience. Being artist-in-resident at the Currie Lighthouse, was an immersive experience of sea and skies and their subtle changes, of birdlife, people, animals. I could bring natural phenomena to my writing, without the usual chores and routine that crowds our daily lives.

As a writer, I am interested in islands, their histories, and fragile ecosystems as our climate warms from carbon emissions, and sea levels rise. As an immigrant, sea journeys, migration and travel have featured often in my writing.

Last year, I came upon the maritime footnote of one shipwreck, the Brahmin, when I was researching the footprint of lascars in Australasian waters.

'Lascar' is a Portuguese word that was adapted from the original Hindi word, 'lashkar' referring to Indian seamen, and it dates to the Portuguese colonial presence in the Indian Ocean from 1548. It became used by the East India Company along with other interchangeable words to describe a lower status work force, a cheap alternative to British seamen.

By the nineteenth century the term 'lascars' included other Asian seamen, often called 'Malays', and sometimes African seamen.

They were recruited as teams by ghat serangs, or labour brokers, and on board the ships they were managed by a ship 'serang'.

Lascars were often young men, vulnerable and exploited as they were paid little more than one third of their European counterparts.

The Brahmin was a three-mast ship of 616 tonnes built in Greenock in 1842, it was used for trade between England to India and often China. In May 1854 it was caught in a three-day gale after leaving the Cape of Good Hope.

The captain could not take accurate navigational bearings and the ship went off course, breaking up after striking a reef south of Whistler Point on the western coast of King Island.

It was only 700 metres from shore. Seventeen crew and passengers including the captain drowned as the boats were put down.

Nineteen lascars, a Malay woman and three British seaman survived for five months on the island with the help of two Tasmanian Aboriginal women who helped them survive, trapping wallaby and fishing.

The lascars were found when the Waterwitch ship headed from Melbourne for Mauritius wrecked further south along the west coast of King Island, on September 17, 1854. The crew of the Waterwitch came upon the lascars. The two Tasmanian women, Mary and Maria had lived for 20 years on King Island, with the sealer John Scott. He had drowned in 1843 after helping the captain of another ship, The Rebecca.

These events are an early example of multi-ethnicity and cooperation. Being of Indian heritage, this is a really intriguing and meaningful story for me.

History is a narrative that is made official by authority and power, and certainly there are filters determining who and what enters the archives; what stories are allowed to be told about the nation, and by whom. What I like about fiction is that it can take all forms. More subtle and evocative than history, fiction can be playful or experimental. It can be provocative in how it interprets the past to reform cultural histories. However, it's very important not to impose my voice over other stories.

To adapt my skills to write with respect, understanding the brutal colonial trauma of the past. This story first emerges from early news reports appearing in several newspapers and shipping gazettes. An aspect of the story is the gaps and the inaccuracies owing to memory and cultural differences, and quite possibly to language barriers. I've been reading other documents from the time such as letters, expedition reports before and after the wreck, and the diary of John Scott, the sealer.

Somewhere in my writing and reading subconscious there are echoes and vestiges of literary texts that are about shipwrecks, from The Tempest to James Bradley's Wrack, or Jock Serong's novel, Preservation. Shipwreck is powerful as a metaphor for new life.

I'd like the novel to be consistent with historical records and maritime archaeology, and after all it is a story about King Island, its natural beauty.

Being here on the island allowed me to observe weather, sky and seas, and imagine what it was like for the lascars to be living here for five months during winter.

A huge encouragement has been receiving the Hedberg Writer-in-Residence Fellowship at the University of Tasmania. The residency and prize money will help support me during the long, slow months it takes to write the first draft and then to revise it to a finished novel with the help of a team.

I'm sure the competition was tough, so it indicates that there is much national interest in King Island's history. A section of my novel will also be set in Hobart, so I'll be able to soak in the climate and harbour while there and access library archives. I'm looking forward to working alongside a distinguished and progressive Creative Writing Faculty at the University of Tasmania.

History comes alive on King Island. I'm thankful to Christian Robertson, a natural historian who generously shared his knowledge of the Quarantine Bay site, and the survivor's camp, south of Whistler Point between Eel Creek and Duck Bay, where the Brahmin was shipwrecked. My thanks as well to the King Island Historical Society and the King Island Council for generously supporting my writing.



August 2023

NIT

NATIONAL INDIGENOUS TIMES

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Rainbow Dreamz

Mali Isabel is painting a pathway

LIFESTYLE STARTS PAGE 9

LAW MOVE AFFECTS MORE KIDS

QLD GOES AGAINST RIGHTS ACT ON DETENTION

DECHLAN BRENNAN

The Queensland Government has introduced legislation that is incompatible with human rights, for the second time this year, with the changes expected to disproportionately impact Indigenous children.

The legislation — implemented to allow children to be imprisoned in police watchhouses designed for adults — was introduced by the State's Police Minister Mark Ryan last Wednesday.

It will require a suspension of the State's Human Rights Act.

Change the Record national director, Gunggari advocate Maggie Munn, said the decision to put through amendments to an unrelated Bill was "outrageous and deliberately harmful".

"This is now the second time Queensland has suspended its Human Rights Act to criminalise and punish children in this State. Incarcerating children whether in prisons or watch houses is harmful, the Government knows this and yet continues to enforce these conditions," they told National Indigenous Times.

"To have a legal instrument like a human rights act in place means there should be protections, but if governments can decide to suspend those protections, it's the most vulnerable people who suffer."

In the Bill's notes, Mr Ryan said the change was necessary to guarantee that "immediate capacity issues" in the State's

CONTINUED PAGE 5



Queensland Police Minister Mark Ryan introduced the Bill amendments on kids in watchhouses.

A

CALLAN MORSE

Prime Minister Anthony Albanese plans to announce the date of the Voice to Parliament referendum on Wednesday.

Set to be made at an event in Adelaide, the announcement will be held in the same State the Yes campaign launched in earlier this year, suggesting the Government believes South Australia looms as a key battleground.

Australia's only other referendum specifically relating to First Nations Australians, the successful 1967 referendum which asked for Indigenous people to be counted as part of the population and empowered the Commonwealth to make laws for them, was also launched in South Australia.

Previously suggesting the referendum will be held in October or November, speculation has arisen the vote will be held on October 14 based on Mr Albanese's travel commitments in the coming months.

"Very soon, our nation will have a once-in-a-generation chance to recognise Aboriginal and Torres Strait Islander people in our constitution — and make a positive difference to their lives with a voice," Mr Albanese said last week.

"I will be campaigning for constitutional recognition. Because if not now, when?"

An October 14 referendum date would allow for a six-week campaign before Australians decide whether to enshrine an Indigenous Voice in Australia's constitution.

Preceding referendum date, the Australian Electoral Commission will deliver nearly 13 million Voice referendum pamphlets to Australian households and other residences.

Distribution of the 20-page document, which details both the Yes and No case, has begun and coincides with the AEC's Your Answer Matters advertising campaign, designed to educate voters ahead of referendum day.

"This is one of the nation's, and the AEC's largest printing

CONTINUED PAGE 5

Bail Act lacks clarity: VALS



DECHLAN BRENNAN

Indigenous and legal groups have commended the Victorian Government for introducing bail reform legislation but warn that it does not go far enough.

Attorney-General Jaclyn Symes introduced legislation into Parliament on August 15 in a bid to reduce unnecessary remand for people accused of low-level offending.

Under the reforms, low-level offenders would find it easier to receive bail and people who committed crimes unlikely to result in a custodial sentence would not be remanded in jail while awaiting sentencing.

"These offences were introduced in 2013 and have been shown to disproportionately impact women, children and Aboriginal people with no clear deterrent benefit or improvement to community safety," the Victorian Government said.

Bail reforms would also redefine "unacceptable risk" so a court wouldn't refuse bail over a risk of minor reoffending.

However, various legal groups have argued that while scrapping certain provisions is a step in the right direction, the reforms do not go far enough.

The Victorian Aboriginal Legal Service said it was "concerning" the Government was proposing only a slight modification of the reverse onus provision, given it is incompatible with the Victorian Charter of Human Rights and Responsibilities Act.

"We are also concerned that the Victorian Government's Bill will make the Bail Act more complicated, rather than making it simple and clear so that it can function more effectively," the VALS statement said.

VALS chief executive, Yorta Yorta and Narrandjeri woman Nerita Waight, said the changes were a small step in the right direction.

"This is a first small step towards ending the damage that Victoria's bail laws have done over the last five years particularly," Ms Waight said.

"There have been three bail Bills before this in the last decade and the Government has admitted that there were mistakes in all of them. They should accept that they probably haven't got this one right either and set a timeline for reviewing the Bill in the legislation."

Referring to Veronica Nelson, whose death in custody in 2020 was deemed preventable by the Coroner and led to calls for an urgent review of the bail act, Ms Waight said Ms Nelson's family had played a significant part in the reforms.

"Veronica is the reason the Government is changing the bail laws. All the Parliament should centre her story when they debate the Bill and be respectful of her family," she said.

"Veronica's family have been clear on asking for changes to the bail laws and I hope the Parliament will ensure the Bill reflects the family's wishes.

"There are some good changes thanks to the advocacy of Veronica's family, especially in relation to removing bail offences, making it easier for children to get bail, and changes to reduce the over-incarceration of Aboriginal people."

The Bill delays implementation of reforms by six months, which the Human Rights Law Centre says will see thousands of people continue to be funnelled into Victoria's prisons.

The family of Ms Nelson have previously called on the Victorian Government to implement "urgent, wholesale changes" to the bail laws in the next three months and for these reforms to be known as Poccum's (Veronica Nelson's childhood nickname) Law.

Amala Ramarathinam, acting manager lawyer at the Human Rights Law Centre, said the Andrews Government had acknowledged the failures of the bail laws, but was still failing to take all the action required.

The Law Institute of Victoria's president, Tania Wolff, said more work on the reforms was required.

The Victorian Government has been contacted for comment.

A

DECHLAN BRENNAN

Social media giant Meta has been criticised for its response to people making racist comments on its platform.

Meta, which owns Facebook and Instagram, received complaints about racist commentary on the platform from the First Peoples' Assembly of Victoria in March.

The First Nations body met a Meta representative; but the comments have not abated.

Assembly co-chair and proud



Gunditjmara man Rueben Berg said the announcement the Federal Liberal Party would oppose the Voice to Parliament coincided with a surge in abuse.

"Since Peter Dutton announced that his party would campaign for a No vote, we've seen a dramatic rise in racist abuse and hatred directed at First Peoples, both online and in everyday life," Mr Berg said. "The No case is really emboldening the trolls and bigots. Our Assembly Facebook page went from getting a handful of racist comments a week to our staff having to report and block hundreds of people every week.

"So, we started our petition calling on Facebook owner Meta to do better in order to help protect the mental health and wellbeing of First Peoples during the referendum."

The Assembly said since meeting Meta, many racist comments have been reported.

Comments such as "feral Abos" and "black k..ts" were deemed to have not breached Facebook's community standards and no action was taken.

A Meta spokesperson told National Indigenous Times that "no one should have to experience racist abuse anywhere".

"We are sorry to hear that the First Nations Assembly of Victoria is still receiving racist comments on their accounts," they said. "When they raised a complaint with us earlier in the year, we investigated it thoroughly and took action. It was our understanding that we had responded to and addressed their concerns. We will be following up with them to understand what more we can do to support them."

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Supply Nation CERTIFIED

Relevant Person Consultation:

ConocoPhillips

ConocoPhillips Australia Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

SCAN HERE

For more information:
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conocophillips.com.au

CMM29889CP_NIT

Federal Court grants Native Title in Chillagoe

Historic day for Wakaman People









JESS WHALER

The Wakaman People of Far North Queensland were granted Native Title rights by the Federal Court of Australia this month, via a determination providing the right to access and care for Country extending over 14,861sqkm of land in Chillagoe.

After a more than 20-year fight for land rights, Justice Berna Collier presented recognition to the Wakaman People during a ceremonial on-Country sitting on Wakaman Country on August 18.

The Federal Court accepted and acknowledged the Wakaman People's proven, unbroken connection to more than 715,000ha of their traditional homelands.

Despite the devastating history of being removed from their land and restricted from practising culture during the aggressive colonisation period, the Wakaman People have maintained a strong connection to their country.

State member for Cook Cynthia Lui noted that "Aboriginal people have inhabited this area of Queensland for over 25,000 years".

"It's been a long road for the Wakaman People to have their claims recognised and I hope the determination gives them a sense of peace," she said.

"Being able to maintain their traditional lands and ensure the cultural practices, skills and stories are passed on to the next generation is a wonderful thing."

Queensland Minister for Resources Scott Stewart said the recognition of native title is "a fundamental step in changing the relationship between the Queensland Government and our First Nations communities".

"We are fortunate in Queensland to be home to two of the longest, continuing cultures in history, in the Aboriginal cultures and Torres Strait Islander cultures," he said.

Represented by the North Queensland Land Council, the applicants of the claim were Wakaman People — Mr John Alvoen, Mr William Thomas, Ms Robyn Hooley, Ms Raelene Madigan and Ms Carol Payne.

Robyn Hooley said the determination "means everything".

"It's been a long process. The sacrifice my family made and their contribution to getting recognition to country, it makes me feel very proud that we finally achieved a good outcome," she said.

Wakaman man William (Billy) Thomas said: "We have been going back to country and teaching my children, nephews and grandchildren about country, about what's on the river and land."

"We teach them about hunting and fishing, showing country and sacred sites, like my mother did with me. We can continue doing this, that's why it means a lot to me," he said.

"The Tate River is special to me, as that's where my mother was born."

Maintaining their traditional lands ensures the Wakaman People can continue to pass these cultural practices, skills and stories on to the younger generations.

The North Queensland Land Council said the decision was welcomed and congratulated the Wakaman People on this momentous occasion.

AEC rolls out campaign to inform public about referendum

CALLAN MORSE

The Australian Electoral Commission has started the main phase of its referendum education campaign with the launch of Your Answer Matters.

Reminding voters that their answer matters in the lead up to the Voice to Parliament referendum, the campaign will have a dedicated website and will be shown on TV, online and in the press with the aim of assisting Australians to get "vote ready".

Your Answer Matters will provide a range of information resources as well as translated and accessible material. Australian Electoral Commissioner Tom Rogers said the campaign is deliberately starting before the referendum voting date is announced.

"It's been 24 years since we last had a referendum," Mr Rogers said.

"Approximately 6.4 million enrolled Australians weren't of voting age when we had our most recent referendum in 1999 — for a lot of people the role of a referendum won't be familiar.

"This campaign ramps up the public education we've been doing all year, educating Australians about the importance of referendums and how to cast a formal vote."

With record growth in general, Indigenous and youth enrolment rates, the campaign will continue encouraging voters to update their enrolment details or enrol to vote.

Memories spur language fight



Patsy Bedford, and inset left, Obby Bedford. Pictures: Rhiannon Clarke

JARRED CROSS

A half-century old memory still brings tears to the eyes of Bunuba Elder Patsy Bedford.

At 15, in the night, she was driven from Derby to Halls Creek, crossing the Kimberley and the river at her birthplace in Fitzroy Crossing.

She said the Department of Native Welfare made the journey in the dark "so that I wouldn't see my country and my siblings".

Her first years were spent by the river with her people and surrounding tribes. By five, her family were moved west to Ellendale Station and later to Derby.

At nine, "because of the colour of my skin", the department removed her from her parents to a hostel for schooling with teachers who "had no real interest in teaching us" and without the opportunity to visit her family.

Aunty Patsy said up until that time she was out in her true classroom "learning about survival on the land, learning about bush medicine, bush tucker and about country".

"I never spoke English until I was about eight," she told National Indigenous Times.

"At the hostel we weren't allowed to speak our language."

Her siblings were later made State wards and taken to the mission in Fitzroy Crossing.

Soon after, the journey to Halls Creek with the Department followed, being told a job waited for her.

It was there she met her future husband, had her children, was reconnected with her brother, and made occasional visits to Fitzroy and to see her Bunuba family before permanently returning home.



Now in her 70s, some of the details of her early years are foggy – and, like many Elders across the country, she's never had a birth certificate.

The difficulties which come without this kind of documentation are varied. People in her community are made to go through onerous processes — often needing a Justice of the Peace, which Patsy has become.

Patsy knows she was born with her name Ngalu and to her skin group Nyanjili. Multiple anthropology reports she has since recovered recorded her "as a half-caste child" under multiple first names.

"I don't know how I got Patsy. I will never do research to find out where Patsy came into this whole picture," she said.

She said memories of her earlier years will never leave her. They're "still raw and still hurt".

"That's my history. And I'm back in Fitzroy. I chair the Kimberley Language Resource Centre, and I fight for languages," Aunty Patsy said.

She is also a board member of Language Policy Partnership, a group made up of Coalition of Peak leaders.

Her granddaughter Obby Bedford has joined her in the pursuit of seeing generations grow up with a tradition inseparable from culture.

There are five language groups around Fitzroy; Bunuba, Gooniyandi, Wangkatjungka, Walmajarri and Nyikina.

Ms Bedford told the National Indigenous Times there was a time when she was young where her grandmother only spoke to her in Bunuba.

She spent her school and university years living in Melbourne, where she lost big pieces of this language and was at times mocked for using it.

Now 25, the move back home to Fitzroy Crossing was done to be reconnected with "language and culture".

"If we don't act now, then we're going to lose language. We're going to lose fluent language. I came back . . . so that I could learn it for myself from people who were still speaking it fluently, as it was their first language, so that I can pass it down as well," Ms Bedford said.

Aunty Patsy still sees funding and power to decide where resources go as a hurdle.

"The Government expects you to bring in a qualified linguist," Patsy said. "That's a big insult to people like myself and other community linguists right across the Kimberley who read and write the language."



Amendment to Bill allows kids held in watchhouse

FROM PAGE 1

prison system could be rectified.

"It is not intended to make acceptable the long-term use of watchhouse or corrective services facilities for young people."

The amendments come after the Queensland Supreme Court on August 18 ordered the urgent transfer of three children who were detained in police watchhouses, after the State Government conceded it had no lawful basis to detain them.

The Bill was initially introduced to amend reporting obligations for sex offenders and includes decriminalising public drunkenness, preventing police from surveillance of sex workers, and reforming police disciplinary processes.

Queensland Greens MP Michael Berkman called the decision an "absolute dog act".

"I've just seen one of the most disgraceful acts from Qld Labor since I was elected," he tweeted last Wednesday. "At 3.30pm, they moved 57 pages of amendments to an unrelated Bill w(ith) 30 mins for debate. They suspend the Human Rights Act to allow children to be kept in watch houses & adult prisons."

Queensland has the highest youth jail population in the country. In June, data showed of the 169 children charged under recently introduced offences, 112 were Indigenous. Debbie Kilroy, chief executive of Sisters Inside, told Guardian Australia the decision means the community "will also be harmed".

"It's time to reimagine communities with funding taken away from police and prisons so we can develop our own modes of safety and security," she said.

This is the second time the Labor Government has had to breach its human rights charter in order to pass legislation.

Earlier this year, it passed legislation that made breach of bail for children a criminal offence, which Mr Ryan spruiked as the "toughest in the country".

At the time, Queensland's human rights commissioner Scott McDougall stated "the measures introduced are predicated on a flawed perception that recidivist children will respond positively to punitive measures.

"I am unaware of any evidence that increased maximum penalties of imprisonment will deter a child from engaging in risk-taking behaviour," Mr McDougall said.

In June, Youth Advocacy Centre chief executive Katherine Hayes it was seeing children plead guilty to avoid spending time in detention.

"We have seen children plead guilty to charges because they are less likely to receive a sentence. If they are on remand, they are highly likely to be held in detention — often for months," she said, noting young people are kept in detention for crimes unlikely to carry a custodial sentence.

Martu Native title ruling is welcomed

GIOVANNI TORRE

The Martu people of the Western Desert, WA, took another step last Thursday in their long battle for Native title over their Traditional lands.

Martu celebrated as the Federal Court in Perth made its declaration on the Martu #3 Native title claim.

Martu applicant Kennedy Finlay and Jamukurnu-Yapalikurnu Aboriginal Corporation (JYAC) representatives were in the Federal Court to witness the determination.

The Martu #3 claim picks up a number of small to medium blocks along the western boundary of Martu ngurra (country).

The WA Government accepted the Martu people are the right people for that claim area and agreed to a consent determination of Native title.

The Wanajarra and Yina (Elders) Council and meetings of Martu common law holders have talked about getting all of Martu ngurra into the determination for many years.

Martu focus is now turning to Karlamilyi National Park — the largest national park in WA and the subject of a protracted negotiation with the State Government.

Mr Finlay said: "We are very happy today that governments and the court have agreed this land belongs to Martu."

"Our ancestors cared for this land, and then gave us the responsibility.

"We will use our native title rights to care for country and keep our culture strong."

JYAC chairperson Simon Frank said Western Desert lands were important for all Martu families.

"We have our culture and spirits in that ngurra," he said.

"Martu want to use the land properly — we will protect ngurra that must be kept safe and we will do mining and other business where that's agreed.

"The country is important to us for the culture, for the environment, and for economic opportunities. This has been our ngurra since before time."



Terrance Jack, Olivia Wilson, named applicant Kennedy Finlay and JYAC legal Rewi Lyall. Picture: JYAC

Jamukurnu-Yapalikurnu Aboriginal Corporation chief executive Tony McRae said Martu exclusive possession native title rights put Martu "in a strong position to control access to their land".

"JYAC is the trustee (land council) for Martu rights and we ensure any activities on country are done under binding agreements. This gives Martu control over country and gives land users the certainty they want to do business," he said.

"The JYAC board has strong instructions from Martu to now focus on getting Karlamilyi back in Martu hands. Martu have waited more than 46 years to get this country back.

"Premier Charles Court declared that sacred part of Martu ngurra a national park without any consultation and Martu have been fighting to get it back ever since. It is a great injustice that must not be allowed to just drift along. Justice delayed is justice denied."

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FROM PAGE 1

and distribution jobs so it'll take time for all deliveries to occur — delivery is getting under way shortly and will be completed by mid-late September," AEC commissioner Tom Rogers said.

As referendum day nears, the Voice debate dominated the recent Conservative Political Action Conference (CPAC) Australia event, which sparked a backlash after guest speakers made derogatory comments about Indigenous culture and praised assimilation.

The conference, chaired by No campaigner Nyunggai Warren Mundine, hosted a range of anti-Voice speakers, including Senator Jacinta Nampijinpa Price, former prime minister Tony Abbott, Advance Director Matthew Sheahan and former Liberal MP Bronwyn Bishop.

During the two-day event, Recognise a Better Way committee member Gary Johns urged assimilation of Aboriginal communities, claiming some in Indigenous communities lived in a "stupor", and recommended they "learn English" if they wanted a voice.

Earlier, self-described "hoax speaker and corporate impostor" Rodney Marks, as character "Dr Chaim Tsibos", addressed the event for 25 minutes, beginning by mocking the Acknowledgement of Country.

"I'd like to acknowledge the traditional rent-seekers, past, present and emerging," he said, before smearing Traditional Owners as "violent black men".

"I hope there are some real feminists in the audience who appreciate the part-truth of that joke," he said, before describing Indigenous leader Bennelong as a "woman-basher".

Megan Davis and Aunty Pat Anderson AO of the Uluru Dialogue issued a statement in response in which they urged the No campaign to stop "racist jokes and misinformation".

"Sadly, this sort of abuse is not uncommon on social media, weaponised by trolls and sham accounts that the No campaign does little to nothing to discourage or condemn," the statement said.

"Our young people around the country will be seeing supposed jokes on their social media feeds portraying Indigenous Australians as 'rent-seekers', 'violent' and 'woman-bashers'."

Call to UN over WA mess

DAVID PRESTIPINO

The United Nations Committee on the Elimination of Racial Discrimination has been urged to take a stance on Western Australia's bungled attempt to reform Aboriginal cultural heritage protection.

A letter sent to UNCERD chair Varene Shepherd this month by Environmental Defenders Office members Slim Parker, Kado Muir, Dr Anne Poelina, Clayton Lewis and Hannah McGlade raised the group's serious concerns about WA's cultural heritage law reform process and requested the international organisation make a formal decision on the matter.

The WA Government admitted it "took things too far" as it announced earlier this month it would revert to the 1972 laws covering Aboriginal cultural heritage in WA, which were in force when Rio Tinto destroyed sacred rock shelters at Juukan Gorge in 2020.

Premier Roger Cook said tweaks to the 50-year-old Act would prevent another catastrophe like the mining titan's and apologised for the stress, confusion and division the new laws had created.



But Dr McGlade, a Curtin University school of law associate professor and expert member of the UN Permanent Forum on Indigenous Issues, said the group was extremely concerned at the lack of Aboriginal consultation before the Act was repealed.

"It's very disappointing the WA Government under Premier Cook's leadership has once again shown failure to respect Indigenous peoples' right to cultural heritage under the frantic legislative reforms passed recently," Dr McGlade said.

The Permanent Forum is an advisory body to the UN's Economic and Social Council and has the mandate to discuss Indigenous issues related to economic and social development, culture, the environment, education, health and human rights.

Dr McGlade, pictured, a Noongar human rights lawyer and academic who has published on many aspects of First Nations legal issues, said the latest change to legislation in WA did not constitute effective remedy.

"The Bill gives Aboriginal Affairs Minister Tony Buti further rights to intervene and 'call in' appeals from the State Administrative Tribunal, thereby allowing the Premier to determine the matter and removing the right to be heard by the tribunal," part of the letter to the UN said.

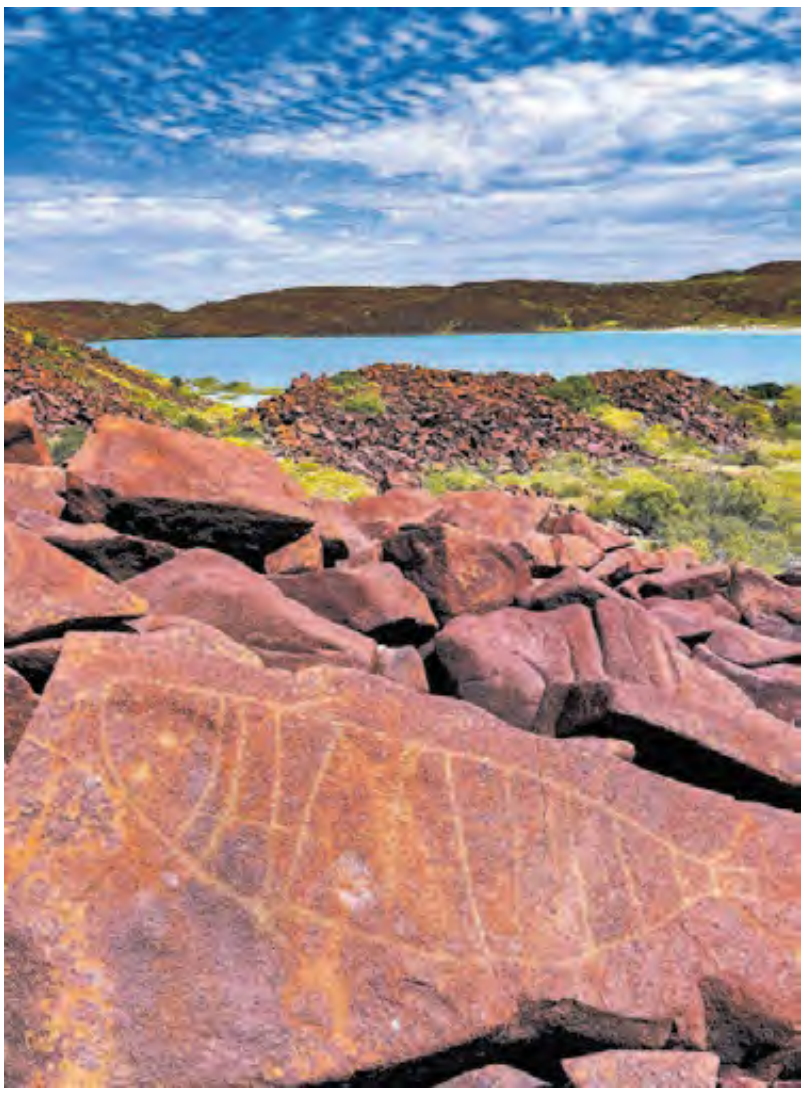
"We also note the SAT has no expertise in Aboriginal cultural heritage and fails to even include Aboriginal members in the tribunal composition, therefore this is also problematic and unacceptable."

The EDO is not the only organisation concerned at the lack of consultation with First Nations organisations, with prominent bodies such as the Kimberley Land Council and the Puutu Kunti Kurrama and Pinikura Aboriginal Corporation, whose sacred caves Rio Tinto destroyed, also claiming they were not part of discussions the Cook Government had with industry and stakeholders, including miners and farmers, before repealing the Act last week.

PKKP land and heritage manager Jordan Ralph said reverting to the culturally inappropriate 1972 legislation was among the worst outcomes for Aboriginal cultural heritage protection and has demanded Dr Buti clarify a range of issues.

"First Nations people are being treated as second-class citizens in their own Country," Dr Ralph said.

The letter to the UN outlined the EDO's position that Australia's approach to cultural heritage protection should be pursued at a national level by the Albanese Government.



Murujuga is a culturally significant site in WA's North West. Picture: A. Stevens. Supplied by Murujuga Aboriginal Corporation.



Video shows teen with disability knocked down by officer



Probe into violent arrest

CALLAN MORSE

A NSW police officer involved in the violent arrest of an Indigenous teenager earlier this month has been placed on restricted duties.

The 18-year-old, who lives with a disability, was arrested in the mid-north coast town of Taree on Tuesday, August 15.

The officer was put on restricted duties after NSW Police launched an internal investigation, sparked by videos of the arrest on social media, described as "difficult to watch" by NSW Police Minister Yasmin Catley.

One of the videos appears to show the plain-clothes officer perform a leg sweep manoeuvre, knocking the teenager to the ground.

A second video shows the pair fall to the ground, before the teenager appears to have a seizure. The officer then pulls the teenager upright before he is handcuffed.

The teenager was later charged with being in possession of suspected stolen goods, and was refused bail in Taree local court. He is set to return to court next month.

The teenager's aunt told Guardian Australia her nephew said he thought he was going to die after the arrest. "He said, 'I thought I was dying in the cell last night'. He said 'I couldn't move'. No one deserves to be treated like that," she said.

The teenager's aunt said the wellbeing of her nephew, who has foetal alcohol spectrum disorder and attention deficit hyperactivity disorder, was not taken into consideration during the arrest.

"There were other ways they could have dealt with him. He wasn't resisting arrest or anything," she said.

"They nearly broke this little boy's arm. This little fella was having seizures and they didn't even have the courtesy to ring an ambulance."

She said her nephew hit his head during the arrest, resulting in a cut on his head.

Greens NSW MP and spokesperson for justice Sue Higginson renewed calls for a parliamentary inquiry into NSW Police, labelling the the teen's treatment "shocking".

"A vulnerable person was experiencing a medical episode and the police responded with violence instead of calling an ambulance," she said.

"This is completely unacceptable and shows us once again that we do have a police problem in this State.

"NSW Police have announced an internal investigation which goes nowhere near what is needed to deal with the systemic issues that allow this to happen."

Ms Catley confirmed the officer was on restricted duties while an investigation was under way. "I acknowledge the video that's circulating is difficult to watch. That's why this investigation will consider the police response and arrest. I cannot comment further while this takes place," the minister said.

NSW Manning-Great Lakes Police District said it would investigate the "response and arrest . . . by a police officer".

The incident has drawn parallels to a previous case involving a NSW police officer, who was found guilty of assaulting a 16-year-old Indigenous boy in 2020 after performing a similar leg sweep manoeuvre.

Ms Higginson said NSW Police were experiencing a "substantive deficit" in their ability to respond to vulnerable people, such as First Nations Australians, calling for further action and an inquiry to address the "alarming number of violent incidents involving NSW Police and vulnerable people".

"We know we have good people in the NSW Police force, but it's not enough to leave this important work up to them. The Government must act."

Thorpe says cancel Voice vote

JESS WHALER

Independent senator Lidia Thorpe called for the Voice to Parliament referendum to be called off in her address to the National Press Club in Canberra this month.

The Djab Wurrung, Gunnai and Gunditjmara woman said the Voice proposal does not go far enough, and urged all Australians to look through the lens of First Nations Peoples.

The senator also spoke on the Frontier Wars, noting: "It was a sport to shoot blacks, a sport to shoot blacks, my people", and adding that the wars have never ended.

"Same war, different weapons, the same domination of First Peoples for access to our land and resources," she said.

"Our people are still rounded up and locked into cages at the highest rates in the entire world."

She paid tribute to the strong line of Aboriginal female activists and ancestors from which she came.

Ms Thorpe called for Treaty, for legislation in line with the United Nations Declaration on the Rights of Indigenous People (UNDRIP), and for the referendum to be called off. "Adhering to the UNDRIP would do vastly more for our people than any voice," she said.

"We're talking about almost 250 years of invasion, disease, murder, theft, destruction, poisoning waterholes, poisoning trees, 250 years almost.

"(It's) 2023 and all they have to offer is a powerless little advisory body with parliamentary supremacy over it at all times."

Ms Thorpe said First Nations people deserve more than what is being offered, which she referred to as "false hope".

"That's another insult to our intelligence. That's an insult to our ancestors. And all of our people who passed in every prison, in every institution," Ms Thorpe said.

"It's an insult, because it's not good enough, after 200 years, that we just get offered a powerless advisory. It's not good enough," she said.

Ms Thorpe invited the Australian people to stand with First Nations people, to stand up for what matters.

"I want to see Federal leadership on the conversation. I think that the King has to be at the table," she said.

Ms Thorpe noted First Nations' connection to and care for country.

"We are the oldest continuing living culture on the planet. Surely that's something to be proud of," she said.

"We have lived through ice ages, countless fires, droughts and floods. We know how to care for country, but we are not allowed to do so."

Prime Minister Anthony Albanese later told a press conference that a Yes vote would "advance reconciliation".

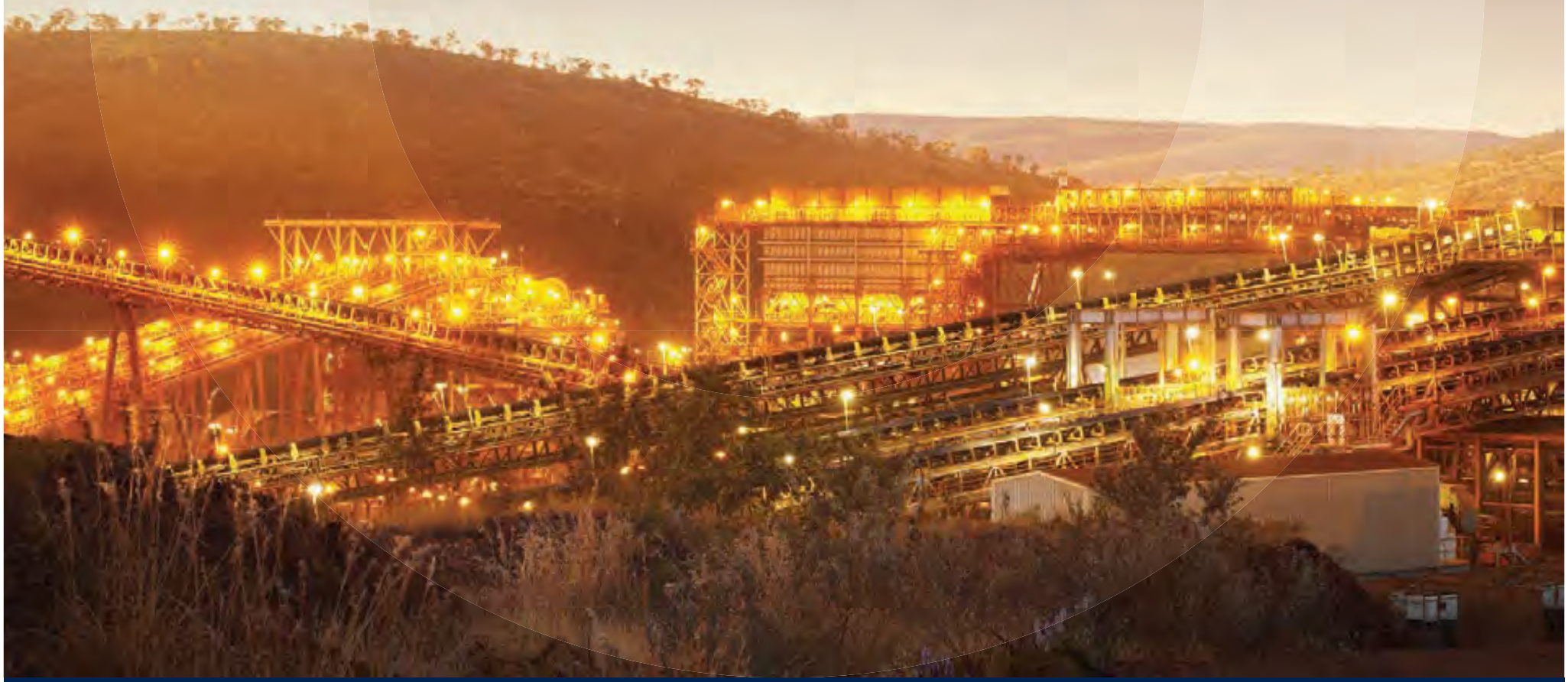
"And that is doable from my perspective. Everyone will come to their own decision. From my perspective I fail to see how other issues will be advanced if a No vote is recorded," he said.



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STYLEUP

FASHION, BEAUTY & LIFESTYLE



Painting a pathway

With Mali Isabel
Pages 12-13

Picture: Weronika Mamot

ALSO INSIDE
DAAF talent and stories **Page 12**
Kamara triumphs in Brisbane **Page 14**

IN PARTNERSHIP WITH MINERAL RESOURCES

E

FROM THE EDITOR

It has been a colourful month for our Style Up team, fitting given this is certainly a colourful edition.

The team attended the Darwin Aboriginal Arts Fair where Country Road denim was worn and much talent seen.

This included the Country to Couture runway, National Indigenous Fashion awards and the overall Darwin Arts Fair where dancers performed and stories were showcased.

The music awards were also held. Our fashion journalist attended the Brisbane Fashion Festival and we sadly said our goodbyes to our social media intern who filled in by holding down the fort in the online world during our director's absence.

It has been another month when we have grown and adapted. I look forward to the coming weeks when I will be attending fashion weeks around the world and providing you with more talent and inspiration.





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PHOEBE BLOGG

After making headlines with its recent Country to Couture runway presentation — which featured watercolour-splashed and dyed clothing — Iltja Ntjarra Art Centre is injecting elements of fun and experimentation back into the fashion industry.

Using a talented team of local Indigenous artists has had the not-for-profit art centre fuse fashion with cultural relevance, artistic expression and bold experimentation.

"Iltja/hands Ntjarra/many, implies the coming together of different Western Aranda family groups," project manager Koren Wheatley said.

"Iltja Ntjarra/Many Hands is the home of the Hermannsburg School of Art, a transformational Central Australian art movement instigated by Albert Namatjira. "Here at the art centre, the Pareroultja, Malbunka, Inkamala, Rununtja, Coulthard, Namatjira, Wheeler and Ebatarinja families work side by side to create powerful interpretations of their custodial country. Many hands and many families coming together to represent culture and country," Wheatley said.

With Albert Namatjira's legacy at the core of everything the centre's artists create, it only seemed natural that continuing his legacy would see the centre's artists experiment with watercolour.

"As the craft of watercolour, especially landscape, is incredibly challenging and at times overwhelming, this project was an opportunity to engage younger emerging artists by encouraging them to explore their interest in textile design as a creative medium.

"The new generation of watercolour artists are innovative, explorative and are guiding the Hermannsburg School of Art movement in their own direction by speaking to what influences their lives in this current social environment and life as they experience it," Wheatley said.

Iltja Njtarra's senior artists and mentors Dellina Inkamala and Vanessa Inkamala, along with emerging Iltja Ntjarra artists, Dianne Inkamala, Delray Inkamala and Mandy Malbunka worked in collaboration with APM Employment and Disability services participants, Rhonda Jones, Teresa Wilson, Lucinda Forrest, Amanda Long and Leah Johnson.

The collection itself was led by Wheatley in the capacity of designer, with the help of seamstress Nghia Pham.

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PHOEBE BLOGG

Artists get the chance to profit in d namic setting

SHAHNA SMITH



Entering the vibrant scene at the Darwin Convention Centre, attendees were immediately embraced by a dynamic display of Indigenous culture. The air buzzed with an infectious blend of excitement and reverence, setting the tone for an unforgettable experience.

Navigating the diverse array of booths, a ray of colours and textures greeted visitors courtesy of more than 70 talented Indigenous artists. The artwork, ranging from captivating paintings depicting Dreamtime narratives to meticulously crafted homewares and rugs, held an irresistible allure. From a small $4000 budget in its first year to having up to 10 employees now, Style Up spoke to DAAF's Tikesa Docherty-Cole about the exponential growth.

"It's very special," she said. "It has come a long way. We had seven new art centres apply to be part of DAAF showing that as we grow, there are new art centres popping up that we can continue to support."

What truly distinguished DAAF was the opportunity to engage with the artists.

The fair's commitment to allowing 100 per cent of sales to the artists fostered an ethical and empowering trade environment.

Live performances elevated the ambience, infusing traditional dance and music with vitality.

Indigenous creatives weave traditional with contemporary

PHOEBE BLOGG

After months of anticipation and excitement, the National Indigenous Fashion Awards have finally crowned their winners.

Taking place at Darwin's Deckchair Cinema on August 9, this year's NIFA awards attracted a sellout crowd.

Breaking records with more than 60 nominees, this year's awards celebrated and supported the industry's top-performing Indigenous creatives.

Proudly presented by Darwin Aboriginal Art Fair and Indigenous Fashion Projects, this year's awards event also partnered with the Northern Territory Government to showcase creative excellence across six categories.

Rowena Morgan of Nagula Jarndu took out the textile design award, Yarrenyty Arltere Artists' Rhonda Sharpe went home with the wearable art award and Wiradjuri Gangulu and Yorta woman Lillardia Briggs-Houston was crowned with the fashion designer award.



Gapuwiyak Culture & Arts artists won the traditional adornment award, Gapuwiyak Culture & Arts X's Aly de Groot walked away with the community collaboration award and Ikuntji Artists won the business achievement award.

"The work of this year's winners all carry such a beautiful weaving together of traditional and contemporary practice imbued with deep connection, pride and love of country and community," said Indigenous Fashion Projects manager Michelle Maynard.

"I think they really represent the heart of our people."

The winners will each receive a range of tailored funding, mentorships and other opportunities available through Indigenous Fashion Projects and presenting partners.

Judges at the awards included Yatu Widders Hunt, Lisa Waup, Nimmi Premaratne and Perina Drummond.

C

SHAHNA SMITH

Nestled in the heart of South Australia, Mali Isabel is painting waves in the world of contemporary art with her vibrant creations. Her artwork is a testament to her deep-rooted cultural pride, her values of peace and equity, and her unyielding positivity.

A proud Arabana-Kokatha woman from Port Augusta, Isabel's upbringing in Adelaide was shaped by her multicultural surroundings.

"I have always felt people assumed I would be embarrassed or ashamed of my culture, and I often left them confused when they realised I embraced my heritage with unwavering pride," she says.

Frequently the only Aboriginal child in her community, Isabel chose to break stereotypes and shatter assumptions.

Her artistic journey began early in life as she explored various outlets for her creativity.

"When I pick up a paint brush, it's like the world and time no longer exist and I can forget the worries in the world," she said.

Graduating with a degree in primary education, majoring in visual arts, Isabel initially intended to pursue teaching.

But her passion for art took precedence. In a leap of faith, she dedicated a year to honouring her craft. Ultimately it led to the establishment of her successful business, Mali Isabel Art. "At the start of 2021, I secured a coveted studio residency at Carclew and spent the majority of my time developing my practice and artistic style," she says.

A hallmark of Isabel's art is her exceptional use of colour, which is not only visually striking but also carries deep significance.

"Each hue and shade captures the essence of how I am feeling at a particular moment in time," she says.

Her use of rainbow colours serves as a symbol of her commitment to achieving equality for all and breaking traditional moulds in Aboriginal art in a positive way.

Drawing inspiration from nature, memories, music and human emotions, Isabel's art seamlessly blends reality and fantasy. "I want to evoke a sense of wonder and awe, reminding others that magic exists in both the grand and subtle moments of life," she says.



Aura Objects — Panton chair by Verner Panton in glacier blue $660; Lexi — Cruz dress in turquoise $499; Luminous Assembly — Maya pumps $189; This Wee Piggy for Leonard St — Blossom earrings $35

Her approach bridges the gap between tradition and contemporary expression.

"It shows the richness and versatility that our heritage offers, especially for other artists like myself who have been raised in the modern world."

The pinnacle of Isabel's journey so far is her role as the poster artist for the 2022 Adelaide Fringe Festival. She is the first Aboriginal person to receive this honour in the festival's 62-year history. And 95 per cent of artworks from her solo exhibition, Rainbow Dreamz, sold.

"This was a huge milestone for me, because it meant the risk I took on for my art was truly worth it all," she says.

Her artwork has also graced the pages of British Vogue.

For aspiring artists, Isabel's journey serves as a beacon of inspiration. She advises embracing opportunities, remaining persistent in the face of challenges, unleashing one's uniqueness, prioritising self-discovery, and above all pursuing personal happiness.

Isabel exemplifies the transformative power of art, the celebration of identity and the impact of positive representation.

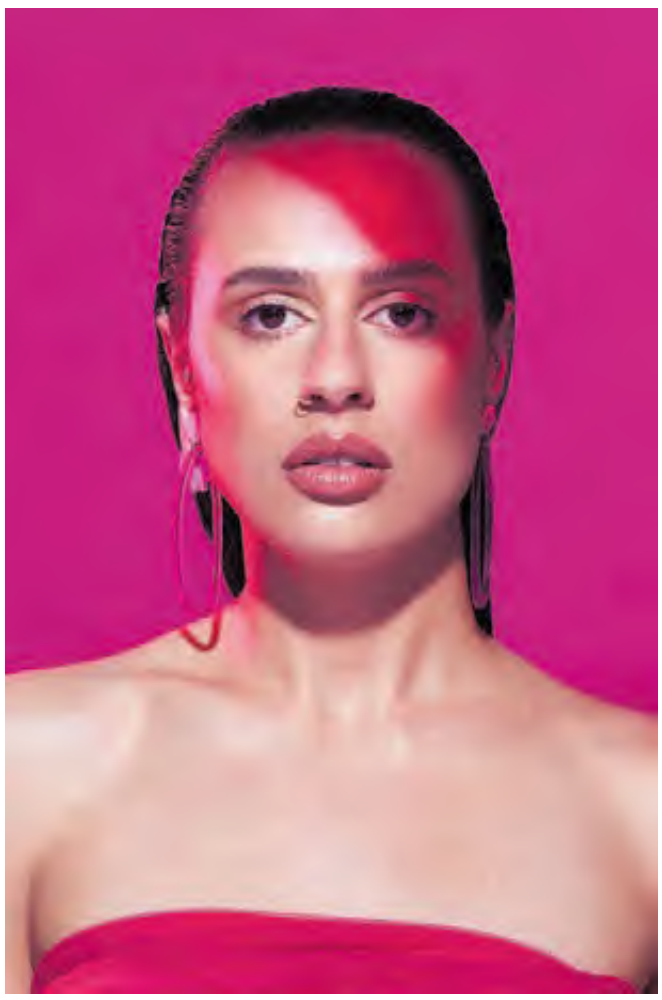
"I aim to build a community where individuals can immerse themselves in a world that celebrates the beauty of life and encourages connection and compassion," she said.

Her journey is about the magic that happens when passion, purpose and positivity collide in a symphony of colours and inspiration.

Photographer: Weronika Mamot **Creative Director/Make-up:** Shahna Smith
Stylist: Emma Riemersma/SA Life Publications **Artist/Talent:** Mali Isabel
Hair: Janelle Zara







LEFT: Country Road — Linen YD blazer $399; Significant Other — Eryn shorts $220; Lexi — Top from the Lorena set in mojito $499; Luminous Assembly — Maya pumps $189; YO-DAN — Industrial glass necklace POA; Lavender jelly flower earrings $65

TOP: Couture Love Madness — Thai silk bubble dress POA; This Wee Piggy — Sea pebbles earrings $35; Luminous assembly — Lola mid heel strappy sandal $179

ABOVE: YO-DAN — Glass long link clear earrings $150; Glass long link baby pink earrings $180







Pictures: Jonathan Green

Kamara stuns with new range

PHOEBE BLOGG

Since launching on to the fashion scene, First Nations-owned and founded swimwear Kamara, has had fashion enthusiasts, consumers and critics on the edge of their seats — and this week's Brisbane Fashion Festival presentation was no different.

Presenting its new collection Universe, Kamara returned to the runway where the brand began. For founders and business partners, Naomi Collings and Kirsty Parnel (Parnel is taking a step back from the brand) seeing their sun-friendly garments walk the runway was yet another rewarding moment.

"We're thrilled to be back at Brisbane fashion month and to have been selected for the Hancock Prospecting Next Gen Group show," creative director Collings said. "It's an honour to return to the Queensland runway, especially since we showcased our very first collection here in 2017."

Having launched soon after Collings received a shock melanoma diagnosis, Kamara was designed to be an apparel business with advocacy at its core. Creating gorgeous, sun-conscious swimwear and paying homage to their Indigenous roots, is what has made Kamara stand out.

Collings created the innovative swimwear line — made using rich, protective fabrics — with the hopes it would both sell and start conversations. Continuing to celebrate their diverse cultural background, the collection features a collaboration print with Yaggerah artist, Jenine Godwin-Thompson. And it has a one-piece, named Onyx, made completely of recycled material. "Onyx is made with ECONYL-regenerated nylon from the healthy seas initiative — elegant, fine, soft, and breathable fabrication. It offers muscular compression, comfort, and UV protection (UPF50+) while resisting chlorine, sun creams, and oils," Collings said.



Building stronger futures through positive partnerships.

We are committed to helping young Aboriginal people reach their potential through our Indigenous scholarship and career development program, Hanrine Futures. The program currently has 18 participants from primary to tertiary age. Each participant is supported through school and university or vocational education with mentors and additional learning opportunities, and into the workplace with internships, work experience and employment.

Visit the website to learn more about Roy Hill's community partnerships.

royhill.com.au

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Roy Hill Community Foundation

ROY HILL



Russell James & Patricia Mason.

Elders proud to share the ke to life

SHAHNA SMITH

As a Kariyarra Elder, Patricia Mason is entrusted with passing down tens of thousands of years of knowledge to the next generation.

But Ms Mason says she also shoulders responsibility to share this "key to life" — knowledge of significant sites, language, wisdom and culture — with non-Aboriginal people.

Which is why her family invited renowned photographer Russell James on to Kariyarra country, which encompasses lands around the town of Port Hedland in north-west WA.

The images captured on his visits, which include a birthing place that was used by Kariyarra women, form part of a new exhibition that seeks to shine a light on Elders from across Western Australia.

Ms Mason is one of more than a dozen Elders and Aboriginal leaders whose portraits feature in The Elders: Legacy of Leadership at the Perth headquarters of Mineral Resources.

At the unveiling, Ms Mason said she hoped the photographs furthered understanding of the deep connection to Country.

"Truth needs to be told that there are places that we feel very sincerely about. We have to show people that they do exist, because without them we wouldn't be here today — we wouldn't have survived," she said.

Russell James regards working on the exhibition as one of the greatest privileges of his career. Other Elders and leaders featured include Noongar man and leading Aboriginal performer Dr Richard Walley, Kaprun Elder Brian Champion, Noongar woman Emeritus Professor Colleen Hayward and Noongar Elder Professor Len Collard.



Budjerah on song for top artist's award

NEVE BRISSENDEN

Coodjinburra musician Budjerah has been crowned artist of the year at the National Indigenous Music Awards.

The 21-year-old singer-songwriter from Fingal Head, in northern NSW, has spent the past year touring with Ed Sheeran and released his hit-single Therapy in February. His list of Australian accolades will now grow after winning the young artist of the year at the 2021 Indigenous Awards, being crowned the best breakthrough artist at the 2021 ARIA Awards and taking out the ARIA for best soul/R&B release for his album Conversations last year.

Budjerah was also nominated for song of the year and film clip of the year, although both those categories were won by emerging talent King Stingray.

The band, from north-east Arnhem Land in the Northern Territory, released the single Let's Go in May 2022 and their debut self-titled album in August last year. This is the band's second year winning song of the year after taking out the category last year with their single Milkumana.

Gamilaraay musician Thelma Plum was also recognised, winning album of the year with her EP Meanjin, written during COVID-19 lockdowns.

The ARIA Award winner has been shortlisted for the Indigenous Awards 10 times but has not won since 2015.

The community clip of the year was awarded to Arnhem Land group Wildfire Manwurrk for Mararradj.

The group also won the Archie Roach Foundation Award. The Indigenous Language Award went to Ngulmiya, an Arnhem Land songman and ceremony leader, for his self-titled single.

Musical trailblazers Yothu Yindi were inducted into the Hall of Fame.

INDIGENOUS-INSPIRED MASSAGE PROVES A POPULAR CHOICE

PHOEBE BLOGG



Midden at the Opera House is a dream come true for Olive

PHOEBE BLOGG

While it's not uncommon for celebrity chefs to break away from the spotlight to launch their own venture, celebrated chef and proud Bundjalung man Mark Olive — otherwise known as The Black Olive — did so not with the intention of profit, but passion.

Thus came the launch of Olive's Indigenous-inspired restaurant, Midden by Mark Olive. Located in Sydney's stunning Opera House, Midden is where culture and craft meet culinary creativity.



Fusing his Indigenous Australian heritage, with seasonal produce and local delicacies, Olive, pictured, has ensured Midden is a reflection of both his culture and favourite cuisine.

"Opening Midden by Mark Olive at the Sydney Opera House on Tubowgule, Gadigal country is a dream come true," he said.

Since opening on July 4, Midden has welcomed foodies, socialites and celebrities into the restaurant.

He has designed Midden's menu to touch on his culture and trendy tastebuds. It ranges from eucalyptus whipped butter and quandong paste, to smoked kangaroo and bush honey. "It's very adventurous and truly Australian," Olive said. "Our diners can expect a variety of Indigenous produce like crocodile, kangaroo, emu and wallaby shanks."

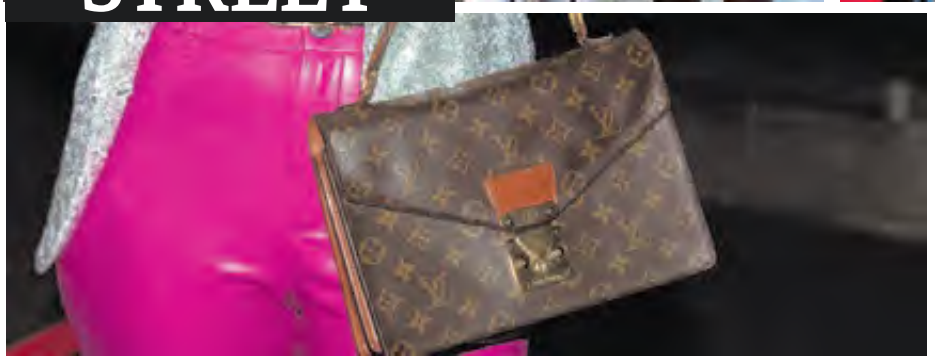
Aside from his appearances on Masterchef Australia, Olive is admired for his work in the SBS hit series, The Outback Chef. Assisting Olive is executive chef and friend, Damien Worthington, who brings a wealth of experience working at some of Sydney's top restaurants.







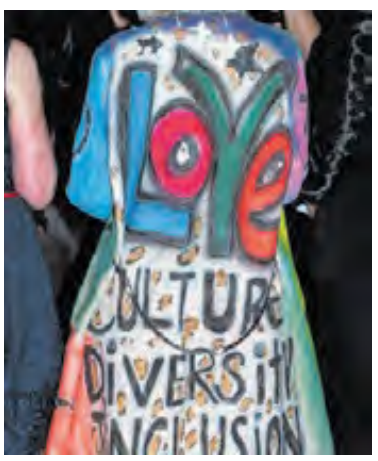
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Woodside is supporting the Yes campaign for an Indigenous Voice to Parliament.

We believe having a formal pathway for First Nations people to share their views on policies that matter to them can only result in better outcomes.

A Yes vote would be a historic step forward in the reconciliation of our nation and an opportunity to unite all Australians.

Read more about Woodside's reconciliation journey at https://www.woodside.com/sustainability/indigenous-peoples

Image: 'Jenaalup Bidi' (Place of Footprints), signature piece for Woodside's 2021-2025 Reconciliation Action Plan

Woodside Energy

Force of language fuelling the Red Power legacy



Tashina Banks Rama outside the heritage centre at Red Cloud Indian School. Picture: Giovanni Torre

GIOVANNI TORRE

Red Cloud Indian School (Mapiya Luta Owayawa) was named for the venerated Oglala Lakota Chief, who led his people from 1865 to 1909 in a struggle to defend their culture, land, language and way of life.

More than a century after his death, the school's executive vice-president Tashina Banks Rama advocates, promotes and upholds Lakota values, and engages the community in ways that continue to transform the multi-faith organisation.

The daughter of American Indian Movement co-founder Dennis Banks, Ms Rama has served the community school, located on sovereign Oglala Lakota land in South Dakota for 14 years and as executive vice-president for three years.

Once a church-run residential school, Red Cloud is now managed by the Oglala Lakota community and is no longer residential.

Ms Rama told National Indigenous Times language revitalisation is "critically important" to the community's wellbeing.

"It's the core of who we are. Our language is the lens in which we are able to view the world. In our belief, we believe that we're all related and that in order to have harmony and balance in our lives, it's important that we respect all living things.

"Our language communicates that in ways that English cannot. So, to speak the language really is to be able to identify as a Lakota and as a being that is part of this circle of the sacred group that we live in," she said.

"This school today is staffed 70 per cent by Lakota people. It's 99 per cent Lakota students.

"There are some non-native students who go to school here, but the majority of our students are Lakota and I feel very proud about that."

Ms Rama noted the importance of teaching the history of her people after many decades of misrepresentation and marginalisation.

"I can tell you this as a person who grew up in the American school system, I never learnt about Native people (in school) in the way that I learnt about them at home. (In) history books of the United States, we're invisible, or if we are in the history books, we are in past tense, right, there are the Indian Wars or you know, Indians were conquered . . . the 'people who used to be here'?" she said.

"So who we are today is nothing like what is written in the history books. In fact, today we're a vibrant, thriving community . . . (and) leading the way, in our language revitalisation programs.

"And we have professors, we have faculty, you know, from K through 12. More importantly, we have the most PhDs we've ever had teaching in universities across the United States. It's very important because we're here . . . And it's important that my children feel proud in who they are, and that we are continuing to instil that pride in the next generation. So, seven generations from now, our children are speaking the language, they know where they come from, they know the history of our people and our creation stories, and why it's important to live the way we do with our traditions."

Ms Rama's father, Dennis Banks, was one of the founders of the American Indian Movement, which embraced a strategy of direct action in response to many decades of human rights abuses by police and treaty-breaking by the US government, and because of the dire conditions on reservations.

"The American Indian Movement was a movement of men and women who were fighting to be recognised. They were fighting against police brutality that was taking place at the time in Minneapolis. The beginning of AIM was 1968 . . . the environment of Minneapolis was really harsh for Native people," she said.

"Police brutality was at its worst in the late Sixties against Native people. And that was when people like my father, Dennis Banks, Clyde Bellecourt, Vernon Bellecourt, and other leaders came together and formed the American Indian Movement.

"It started out as a community-organised group that were trying to protect each other, and look out for one another. And then it just grew very quickly from there."

Ms Rama said the legacy of AIM and the stand it took for justice can be seen in the Native people empowering themselves through education.

"My bachelor degree is a business degree, but my minor is Native American studies. And the fact that there was a Native American Studies Department at a public university has a lot to do with the American Indian Movement. American Indian studies departments popped up all over the United States and public universities because of the work of the American Indian Movement.

"The legacy (of AIM) gave agency to a lot of people who are working in those spaces, here comes this movement, right, this Red Power movement. And so, people were using their agency, and they're feeling empowered by this community group that was starting to rise in ranks and starting to be really viewed as a legitimate organisation that was making change."

Ms Rama said there is an ongoing struggle for recognition and to end racism.

"As Native people there's a sense of we just are not here, that we just are invisible and we don't exist, or if we exist, we are caricatures, and we're just not a real culture or we're not a real people that still live in lands and practice ceremonies and have a language and practice traditions that have been happening for thousands of years," she said.

"In this State (South Dakota), particularly, you feel the racial tension is very strong, it's very alive. That's something we try to combat with our work and language and culture here so that our kids feel as confident as they can be when they walk into a gas station, or a grocery store that's off the reservation, where they're viewed, as you know, the 'other', when in reality, this is our homelands, you know, the Black Hills, we have been praying there for thousands of years. That's the home of our sacred sites, and our creation story.

"Native people have to do the best that we can to make sure that we're being recognised, we have to advocate for ourselves, because there's nobody else out there advocating on our behalf."

Ms Rama noted that the "land-back" movement is "huge" in the US, Canada and around the world.

"The Red Power movement is really very much alive today and getting stronger."

> "Our language is the lens in which we are able to view the world . . . Our language communicates that in ways that English cannot. So, to speak the language really is to be able to identify as a Lakota and as a being that is part of this circle of the sacred group that we live in.

DV and health challenges for tribal leaders

GIOVANNI TORRE

For 45 years the White Buffalo Calf Women's Society has served vulnerable women and children in South Dakota.

The society is in south central South Dakota and was the first organisation of its kind in the US; a Native American-run service providing shelter and support to victims of domestic violence, sexual assault, dating violence, and stalking.

Prairie Rose Chapin, a Rosebud Sioux woman, is the executive director of the society and spoke to National Indigenous Times during the 18th Annual Government-to-Government Violence Against Women Tribal Consultation in Tulsa, Oklahoma this month, involving federal authorities consulting with tribal organisations and leaders, as mandated under Federal US law.

"White Buffalo Calf Women's Society ... was created and funded by Lakota grandmothers who saw there was a need to address violence against women, children and elders, and support those that are afflicted by domestic violence and family violence," she said.

"We ... provide an array of services to women that are affected by domestic violence, stalking, sexual assault, human trafficking ... We do young people's programs, youth programs, as well as the teen dating. We also go into the schools and do programs for young ladies and younger girls. So, they're starting to learn about how to keep themselves safe and how to help others that are in need or need safety."

The society's shelter, founded in 1978, now includes a 36-bed facility which tribal leaders hope to expand.

"As much as a we are celebratory (for the upcoming 45th anniversary of the society) it is almost with much sadness that we have to convey that we're still incurring family violence in our communities," Ms Chapin said. "We do help other tribal nations, we help those in need ... We're going to help everybody."

Ms Chapin noted an executive order was issued by the White House in 2004 "for the United States government to have meaningful consultations with the tribes, so the United States government is able to create and develop objective plans to help the tribal nations regarding violence in our communities and mostly regarding with women".

Ms Chapin said the "trust responsibility" relationships between the US government and the sovereign tribal nations are at the heart of the treaties.

"That's why these tribal consultations are so meaningful, because they listen to the tribes and are trying to help address the issues within the tribal communities," she said.

Ms Chapin noted there were almost 600 federally recognised tribal nations in the US with distinct needs.

"That lets you know how many tribal leaders have sent designees, representatives — as well as tribal leaders themselves — that are here (at the August consultation conference in Tulsa) to convey the information that is so dire in our communities," she said.

"The Department of Interior has oversight of what's going on between the United States government and our Tribal nations ... (Federal authorities) also provide funding to the Department of Interior to be filtered down to tribal nations under what they call Public Law 93 638 contracting.

> "That's why these tribal consultations are so meaningful, because they listen to the tribes and are trying to help address the issues within the tribal communities.
>
> **Prairie Rose Chapin**

"They provide the funding, we execute the contract ... however, we're going to need more funding for more policy, procedure, training opportunities. Because the people are in dire need here, as well as any other Indian nations.

"We have the same issues, but different nations (are) unique. Now we have missing murdered indigenous women. We have missing murdered indigenous relatives. We have domestic violence, family violence, we have cops that are shooting and cops that are killing. And they all revolve around back to training, training, training. It's not enough... we have to teach our culture to change."

Ms Chapin said it is was a public responsibility as well as an individual responsibility to teach the community's children to "be right and to be productive members of society".



Prairie Rose Chapin at the conference in Tulsa. Picture: Giovanni Torre

"Teach them cultural-specific ideals, ideology, historical information, so we can move forward."

She noted the social, health and economic damage alcohol and other drugs have done.

"Too often the drugs and alcohol have infiltrated our reservation from the beginning of time as a trading source (and) we still have poor economies on Indian reservations," she said.

"Even now, today's inflation affects what we have received on reservations. Some reservations don't even have a store. You know, in order for us to even go to somewhere with the food chain like McDonald's, or to Walmart, is more than 100 miles away from most reservations. And it's the same with health care."

Ms Chapin said isolation and inadequate services put lives at risk during times of crisis, both natural and man-made.

"We don't handle law enforcement, so with many crimes, especially violent crimes... it can take days to get that response. And some people die during while waiting for that response," she said. "We had an array of snow storms this past winter, where it was very life threatening ... six to eight feet of snow, and law enforcement or emergency services not able to respond. Tribal governments and the (US) government have to meet in the middle somewhere. It was the US government that created these Indian reservations. There's a lot of treaty rights that were set aside by the US government."

Ms Chapin said there was still a lot of work to be done to address the challenges and injustices tribal nations face.

"They gave us land pieces that sometimes have nothing. Some tribal nations have no water and there's still none, they go to town to fill buckets for water, or canisters for water, just for basic needs."

Together with reconciliation at our heart

Woolworths Group's commitment to reconciliation is stronger than ever.

That's why as Australia's largest retail group we are partnering with UTS to help realise the dream of a new First Nations residential college; the first of its kind in Australia. And it's why we aim to contribute positively to all the communities in which we serve across the country.

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Learn more about our partnership here.

Maree Graham (UTS), Cassandra Tratt & Clint Johnson (Woolworths Group)



D



A Tidal Moon dive team on a recent mooring and hull inspection for a local net fisherman. Picture: Tidal Moon

Diving into history for lucrative trade

DAVID PRESTIPINO

A First Nations business operating on WA's Coral Coast is resurrecting a centuries-old trade route between Indigenous Australians and Asia.

Denham-based Tidal Moon is a nod to the origins of Australian commerce, which began with the trade of sea cucumbers from Indigenous people from the Kimberley and Arnhem Land regions to Macassan seafarers from what is now Indonesia.

Tidal Moon managing director and Mulgana traditional owner Michael Wear said his goal was to preserve and enhance Indigenous heritage while creating a business that would remain viable for decades, and forge a path for more First Nations organisations to enter the lucrative commercial fishing industry. Tidal Moon gained access to the sea cucumber fishery in Shark Bay in 2017, improving the lives and skills of traditional custodians, but is now fighting for a commercial licence so it can continue its good work.

"We want to be in the mainstream industry and have the ability to set up a business that's not reliant on grants or funding but stands on its own as a First Nations-owned company," he said.

While Tidal Moon's focus is sea cucumber fishing, it also has exciting partnerships with the likes of the CSIRO, APEC and the Harry Perkins Institute of Medical Research, helping the latter determine the health benefits of sea cucumbers, particularly in cancer treatments.

The sea cucumber harvesting business, which was kickstarted in 2019 with a $92,000 investment from the Indigenous Land and Sea Council, has also established one of the world's largest seagrass restoration projects through BHP's Blue Carbon initiative, targeting a portion of the estimated 100,000ha of damaged sea grass meadows in Shark Bay.

Tidal Moon has trained and employed more than 10 Malgana traditional custodians in dive operations, delivering certified training in marine industry operations through partnerships with TAFE WA Maritime Centre and the Swan Maritime Institute.

Divers record all their interactions in nature, with Mr Wear planning to create a "living library" in conjunction with the CSIRO of Indigenous observations with the environment. Export opportunities are also in demand, with sea cucumbers considered a delicacy in Asia and also popular across Europe, prized for their culinary and medicinal properties.

Tidal Moon's potential lucrative export contract with a Singapore company was recently skittled when its five-year fishing licence obtained through a minister's exemption expired in July.

Mr Wear said the WA Government had placed roadblocks to Tidal Moon's growth on a local front, leaving the company floating as it fights for a commercial licence to enable further development.

He said all sea cucumber commercial fishing licences in WA were currently owned by Tasmanian Seafoods.

NINA HENDY

Indigitek aims to boost the number of Indigenous people entering the tech industry, improving diversity and alleviating talent shortages in the sector.

Aboriginal and Torres Strait Islander people make up close to zero per cent of the tech industry, yet its importance as an employer is set to surge.

Indigitek, a not-for-profit group, has joined forces with course provider General Assembly, which specialises in cultivating diverse tech talent, and built a scholarship program designed to train Aboriginal and Torres Strait Islander candidates for tech startup Cash App, a money transfer app.

The scholarship program has been designed to create a chance for interested candidates to supercharge their careers in engineering. It's made up of a three-month software engineering immersive course, then a six-month internship.



The first successful candidate to land full-time work with Cash App is Joshua Towney, pictured, who started the journey 18 months ago, and admits he sometimes has to pinch himself to make sure he's not dreaming.

His wife had been encouraging him to look into coding for a decade but he was reluctant to dedicate years to being a struggling student. "The silver bullet of it only being a short course won me over in the end," he said.

He was one of about 15 students in the course. Born and raised in Dubbo, he's part of the Wiradjuri Country. "The initiative was subsidised by the Indigitek and Cash App partnership, so all costs for the course were covered," Mr Towney said.

Learning there were only about 200 Indigenous developers Australia-wide drove home the challenge in getting more Aboriginal and Torres Strait Islanders into the industry, he added.

Mr Towney said it has been his toughest endeavour to date, but he wouldn't trade the experience for anything.

BRENDAN FOSTER

Supply Nation's new chief executive Kate Russell says the rise in First Nations businesses in the past 10 years has been phenomenal but fledging Indigenous companies still face significant barriers.

The proud Awabakal woman, pictured, who recently replaced interim chief executive Michelle Deshong, said despite only being in the top job a few weeks she is keen to tackle the age-old issue of access to capital for Aboriginal and Torres Strait Islander people.



"Our entrepreneurs continue to face significant barriers to establishing a successful business, including difficulty in attracting low-cost finance, building a customer base, winning contracts or establishing links with reliable suppliers," she said. "I see helping our mob overcome these barriers as a fundamental and ongoing challenge of my role.

"One thing that has become apparent to me over the last few weeks is that we need to be supporting the diversity of our suppliers — from a mum and dad operating out of a garage, to a bi-coastal organisation with its own philanthropic fund."

A board director of the NSW Aboriginal Land Council, Ms Russell said First Nations businesses still don't get some of the recognition they deserve in contributing to the economy.

It's estimated they pour about $5 billion a year into the nation's coffers. "I think recognition of how our businesses contribute to the national economy is growing," Ms Russell said. "This success is in spite of the unique set of challenges that Aboriginal and Torres Strait Islander people face — including historical and institutionalised inequities, limited access to the market and complex social stratification."

Ms Russell said the Federal Government's Indigenous Procurement Policy had enabled a tremendous growth in the First Nations business sector, but the policy could be improved.

GOVERNMENT OF WESTERN AUSTRALIA

NOTICE TO GRANT MINING TENEMENTS

NATIVE TITLE ACT 1993 (CTH) SECTION 29

The State of Western Australia HEREBY GIVES NOTICE that the Minister for Mines and Petroleum, C/- Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004 may grant the following tenement applications under the *Mining Act 1978*:

Tenement Type	No.	Applicant	Area*	Locality	Centroid	Shire
Exploration Licence	15/1955	MONGER EXPLORATION PTY LTD	14BL	18.4km E'ly of Kambalda	Lat: 31° 11' S Long: 121° 51' E	COOLGARDIE SHIRE, KALGOORLIE-BOULDER CITY
Exploration Licence	16/633	AMERY HOLDINGS PTY LTD	3BL	35.7km W'ly of Ora Banda	Lat: 30° 19' S Long: 120° 41' E	COOLGARDIE SHIRE
Exploration Licence	28/3267	CARAWINE RESOURCES LIMITED	9BL	157.6km N'ly of Balladonia	Lat: 31° 2' S Long: 123° 48' E	KALGOORLIE-BOULDER CITY
Exploration Licence	28/3347	REGENER8 RESOURCES NL	200BL	176.5km SE'ly of Edjudina	Lat: 30° 48' S Long: 123° 46' E	KALGOORLIE-BOULDER CITY
Exploration Licence	28/3348	REGENER8 RESOURCES NL	63BL	164.9km SE'ly of Edjudina	Lat: 30° 53' S Long: 123° 31' E	KALGOORLIE-BOULDER CITY
Exploration Licence	31/1363	M3 MINING (EDJUDINA) PTY LTD	1BL	16.4km W'ly of Edjudina	Lat: 29° 46' S Long: 122° 11' E	MENZIES SHIRE
Exploration Licence	31/1365	M3 MINING (EDJUDINA) PTY LTD	2BL	16.3km W'ly of Edjudina	Lat: 29° 51' S Long: 122° 11' E	MENZIES SHIRE
Exploration Licence	31/1366	M3 MINING (EDJUDINA) PTY LTD	1BL	15.7km SW'ly of Edjudina	Lat: 29° 52' S Long: 122° 12' E	MENZIES SHIRE
Exploration Licence	31/1367	M3 MINING (EDJUDINA) PTY LTD	1BL	9.7km W'ly of Edjudina	Lat: 29° 47' S Long: 122° 15' E	MENZIES SHIRE
Exploration Licence	36/1068	METAL HAWK LIMITED	21BL	30.8km S'ly of Leinster	Lat: 28° 11' S Long: 120° 41' E	LEONORA SHIRE
Exploration Licence	46/1477	TMB NULLAGINE PTY LTD	32BL	36.8km SE'ly of Nullagine	Lat: 22° 2' S Long: 120° 25' E	EAST PILBARA SHIRE
Exploration Licence	46/1503	TMB NULLAGINE PTY LTD	9BL	46.9km E'ly of Nullagine	Lat: 21° 54' S Long: 120° 33' E	EAST PILBARA SHIRE
Exploration Licence	46/1504	TMB NULLAGINE PTY LTD	20BL	46.1km E'ly of Nullagine	Lat: 21° 59' S Long: 120° 32' E	EAST PILBARA SHIRE
Exploration Licence	46/1505	TMB NULLAGINE PTY LTD	3BL	55km E'ly of Nullagine	Lat: 21° 55' S Long: 120° 38' E	EAST PILBARA SHIRE
Exploration Licence	51/2167	MINING EQUITIES PTY LTD	32BL	47.5km SE'ly of Peak Hill	Lat: 25° 55' S Long: 119° 4' E	MEEKATHARRA SHIRE
Exploration Licence	51/2170	MINING EQUITIES PTY LTD	11BL	42.9km SE'ly of Peak Hill	Lat: 25° 49' S Long: 119° 5' E	MEEKATHARRA SHIRE
Exploration Licence	70/6447	RIO TINTO EXPLORATION PTY LIMITED	169BL	62.4km N'ly of Mukinbudin	Lat: 30° 21' S Long: 118° 8' E	MOUNT MARSHALL SHIRE, MUKINBUDIN SHIRE
Exploration Licence	70/6462	CODRUS MINERALS LIMITED	1BL	32.7km N'ly of Mukinbudin	Lat: 30° 37' S Long: 118° 8' E	MUKINBUDIN SHIRE
Exploration Licence	70/6463	CAULDRON ENERGY LIMITED	82BL	23.3km SE'ly of Dalwallinu	Lat: 30° 23' S Long: 116° 51' E	DALWALLINU SHIRE
Exploration Licence	70/6469	CAULDRON ENERGY LIMITED	74BL	59.7km NE'ly of Wongan Hills	Lat: 30° 33' S Long: 117° 12' E	KOORDA SHIRE, WONGAN-BALLIDU SHIRE
Exploration Licence	70/6472	CODRUS MINERALS LIMITED	54BL	43.7km N'ly of Mukinbudin	Lat: 30° 32' S Long: 118° 4' E	MOUNT MARSHALL SHIRE, MUKINBUDIN SHIRE
Exploration Licence	70/6473	SR EXPLORATION PTY LTD	24BL	78.3km NW'ly of Mukinbudin	Lat: 30° 18' S Long: 117° 48' E	MOUNT MARSHALL SHIRE
Exploration Licence	70/6474	SR EXPLORATION PTY LTD	35BL	83km NW'ly of Mukinbudin	Lat: 30° 24' S Long: 117° 34' E	KOORDA SHIRE, MOUNT MARSHALL SHIRE
Exploration Licence	77/2958	DYNAMIC METALS LIMITED	26BL	9.4km W'ly of Southern Cross	Lat: 31° 15' S Long: 119° 14' E	YILGARN SHIRE
Exploration Licence	77/3099	MORNING STAR MINING PTY LTD	2BL	111.3km N'ly of Southern Cross	Lat: 30° 13' S Long: 119° 23' E	YILGARN SHIRE
Exploration Licence	77/3100	MORNING STAR MINING PTY LTD	1BL	109.6km N'ly of Southern Cross	Lat: 30° 14' S Long: 119° 24' E	YILGARN SHIRE
Exploration Licence	77/3104	NIMY PTY LTD	35BL	96.1km NE'ly of Mukinbudin	Lat: 30° 9' S Long: 118° 42' E	YILGARN SHIRE
Exploration Licence	77/3105	DESTINY LITHIUM PTY LTD	18BL	51.7km S'ly of Marvel Loch	Lat: 31° 56' S Long: 119° 28' E	YILGARN SHIRE
Exploration Licence	77/3112	CULLEN EXPLORATION PTY LIMITED	7BL	21.5km SE'ly of Mukinbudin	Lat: 31° 4' S Long: 118° 19' E	MUKINBUDIN SHIRE, NUNGARIN SHIRE
Exploration Licence	77/3113	AURUMIN JOHNSON RANGE PTY LTD	1BL	148.1km W'ly of Menzies	Lat: 29° 42' S Long: 119° 30' E	MENZIES SHIRE
Prospecting Licence	24/5600-S	SMITH, William John	8.59HA	5.9km NW'ly of Broad Arrow	Lat: 30° 23' S Long: 121° 17' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	25/2743	ARDEA EXPLORATION PTY LTD	31.04HA	32.4km E'ly of Kalgoorlie	Lat: 30° 48' S Long: 121° 48' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	25/2763-S	DEBEEN, Simon John	9.65HA	36.7km NE'ly of Kambalda	Lat: 30° 55' S Long: 121° 52' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4698	NORTON GOLD FIELDS PTY LTD	15.18HA	9.6km SW'ly of Kalgoorlie	Lat: 30° 49' S Long: 121° 24' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4700	GOLDTIMERS PROSPECTING PTY LTD	20.13HA	8.8km S'ly of Kalgoorlie	Lat: 30° 49' S Long: 121° 27' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4701	WARD, Victoria Louise	3.36HA	9km SW'ly of Kalgoorlie	Lat: 30° 49' S Long: 121° 25' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4702	NORTON GOLD FIELDS PTY LTD	17.79HA	12.6km SW'ly of Kalgoorlie	Lat: 30° 50' S Long: 121° 23' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	28/1404	ALTER, Roger Scott	119.99HA	78.2km S'ly of Edjudina	Lat: 30° 30' S Long: 122° 15' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	30/1164-S & 30/1165-S	ARGUS, Stephen George	20.00HA	43.6km W'ly of Menzies	Lat: 29° 38' S Long: 120° 35' E	MENZIES SHIRE
Prospecting Licence	39/6424	SIMMONS, Wayne Anthony	8.01HA	60.9km E'ly of Leonora	Lat: 28° 59' S Long: 121° 56' E	LAVERTON SHIRE, LEONORA SHIRE
Prospecting Licence	40/1575	DIXON, Craig Leslie	9.90HA	45.1km S'ly of Leonora	Lat: 29° 16' S Long: 121° 27' E	MENZIES SHIRE

Nature of the act: Grant of prospecting licences which authorises the applicant to prospect for minerals for a term of 4 years from date of grant. Grant of Special Prospecting Licences, which authorises the applicant to prospect for minerals for a term up to 4 years from the date of grant. Grant of exploration licences, which authorises the applicant to explore for minerals for a term of 5 years from the date of grant.

Notification day: 23 August 2023

Native title parties: Under section 30 of the *Native Title Act 1993* (Cth), persons have until 3 months after the notification day to take certain steps to become native title parties in relation to applications. The 3 month period closes on **23 November 2023**. Any person who is, or becomes a native title party, is entitled to the negotiation and/or procedural rights provided in Part 2 Division 3 Subdivision P of *Native Title Act 1993* (Cth). Enquiries in relation to filing a native title determination application to become a native title party should be directed to the Federal Court of Australia, 1 Victoria Avenue, Perth WA 6000, telephone (08) 9268 7100.

Expedited procedure: The State of Western Australia considers that these acts are acts attracting the expedited procedure. Each licence may be granted unless, within the period of 4 months after the notification day (**i.e. 23 December 2023**), a native title party lodges an objection with the National Native Title Tribunal against the inclusion of the statement that the State considers the grant of the licence is an act attracting the expedited procedure. Enquiries in relation to lodging an objection should be directed to the National Native Title Tribunal, Level 5, 1 Victoria Avenue, Perth, or GPO Box 9973, Perth, WA 6848, telephone (08) 9425 1000.

For further information about the act (including extracts of plans showing the boundaries of the applications), contact the Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004, or telephone (08) 9222 3518. ***Please note – Not all Intention to Grant notifications are published in the National Indigenous Times. For more information please contact the Department above.***

* - 1 Graticular Block = 2.8 km²

GOVERNMENT OF WESTERN AUSTRALIA

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Tenement Type	No.	Applicant	Area	Locality	Centroid	Shire
Mining Lease	15/1897	OPHIR MINING RESOURCES PTY LTD	130.23HA	22.9km SW'ly of Kambalda	Lat: 31° 19' S Long: 121° 28' E	COOLGARDIE SHIRE
Mining Lease	15/1898	ROBUSTELLINI, Anthony	3.50HA	94.4km NE'ly of Southern Cross	Lat: 30° 44' S Long: 120° 8' E	COOLGARDIE SHIRE
Mining Lease	15/1904-G	FRANCIS, Raymond John	7.34HA	25.1km SW'ly of Kambalda	Lat: 31° 22' S Long: 121° 29' E	COOLGARDIE SHIRE
Mining Lease	24/1007	ARCHER, Glenn Douglas	129.90HA	7.9km SE'ly of Ora Banda	Lat: 30° 25' S Long: 121° 6' E	KALGOORLIE-BOULDER CITY
Mining Lease	29/444	MT IDA GOLD PTY LTD	572.21HA	88.2km NW'ly of Menzies	Lat: 29° 4' S Long: 120° 27' E	MENZIES SHIRE
Mining Lease	39/1155	E-COLLATE PTY LTD	153.44HA	60.3km E'ly of Leonora	Lat: 29° 0' S Long: 121° 56' E	LEONORA SHIRE

Nature of the act: Grant of mining leases, which authorises the applicant to mine for minerals for a term of 21 years from notification of grant and a right of renewal for 21 years.

Notification day: 23 August 2023

Native title parties: Under section 30 of the *Native Title Act 1993* (Cth), persons have until 3 months after the notification day to take certain steps to become native title parties in relation to applications. The 3 month period closes on **23 November 2023**. Any person who is, or becomes a native title party, is entitled to the negotiation and/or procedural rights provided in Part 2 Division 3 Subdivision P of *Native Title Act 1993* (Cth). Enquiries in relation to filing a native title determination application to become a native title party should be directed to the Federal Court of Australia, 1 Victoria Avenue, Perth WA 6000, telephone (08) 9268 7100. The mining tenements may be granted if, by the end of the period of 4 months after the notification day (**i.e. 23 December 2023**), there is no native title party under section 30 of the *Native Title Act 1993* (Cth) in relation to the area of the mining tenements.

For further information about the act (including extracts of plans showing the boundaries of the applications), contact the Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004, or telephone (08) 9222 3518. ***Please note – Not all Intention to Grant notifications are published in the National Indigenous Times. For more information please contact the Department above.***

DMIRSJUN23_8341

NIAA called out on lack of fraud checks

DAVID PRESTIPINO

An alarming lack of audit controls has been exposed at Australia's leading Indigenous funding organisation.

A new report by the Australian National Audit Office has found the National Indigenous Australians Agency, the Commonwealth body responsible for policy development, implementation and service delivery for First Nations people, is failing to properly detect and manage fraud.

The agency, which has more than 1300 employees across Australia, had its budget in 2022-23 increased to $4.5 billion, to provide funding for programs through the Federal Government's Indigenous Advancement Strategy.

In 2021–22, the NIAA funded spent $1.03 billion on more than 1000 external providers to deliver IAS activities and services, yet it failed to initiate a single fraud investigation.

ANAO analysis of Federal Government entities in June 2022 found the average number of external fraud investigations in medium agencies was 25 and in large agencies 12. Its report said the NIAA was not meeting legislated requirements for "risk and fraud management" in its role co-ordinating service delivery and policies for First Nations people.

The inadequacies in its fraud management were enough for the Federal Minister for Indigenous Australians Linda Burney to instruct the NIAA to implement further anti-fraud measures, in addition to seven recommendations from the ANAO in its report.

"I am very disappointed and concerned by the ANAO's findings," Ms Burney told the National Indigenous Times.

The NIAA was designed to improve Indigenous communities through the delivery of services but the report found it lacked proper oversight and compliance mechanisms to ensure funds were directed appropriately. One area of concern for the ANAO was the NIAA's management of fraud and non-compliance risks with service providers. "Its frameworks for managing provider fraud and non-compliance are not fully fit-for-purpose," the report said.

Ms Burney said the systems put in place by the previous Federal government were "clearly deficient". "Strong governance and accountability are critical to ensuring delivery of high quality services and better outcomes for Aboriginal and Torres Strait Islander communities," she said.

"The NIAA has already agreed to all the recommendations by the Auditor-General, and is in the process of implementing them."

Ms Burney said she had also instructed the NIAA to: establish an integrity group to elevate fraud prevention and detection; introduce a program of pro-active random compliance checks that is best-practice; start additional training for staff on fraud prevention and detection; and ensure staff are taking preventive and proactive steps to prevent and detect fraud

In a letter to Auditor-General Grant Hehir in May addressing the ANAO's report, NIAA chief executive Jody Broun said the agency would implement all seven recommendations and meet its obligations under Commonwealth legislation.

"The opportunities for improvement identified in the audit report, in conjunction with the work already under way to enhance practices and processes, support the agency's continuous improvement of its management of risk, provider fraud and non-compliance," she wrote.

An ANAO review of five investigation closure reports by the NIAA found there was no or insufficient evidence of fraud. The ANAO noted of the five reports that three were not approved and one was not dated. Of the four that were dated, three were not endorsed by case officers and three did not have information on lessons learnt.



Picture: Darren England

Qantas flies the flag for Yes

DAVID PRESTIPINO

Qantas will fly the flag for the Yes team on twin fronts in our skies, decorating three of its planes and funding the travel of campaign members.

The commercial arrangement has raised some eyebrows, including those of Adam Giles, former chief minister of the Northern Territory who now runs mining magnate Gina Rinehart's agricultural empire, Hancock Agriculture and S. Kidman & Co.

Qantas chief executive Alan Joyce said branding three of its planes with the Yes23 campaign logo was part of the airline's commitment to reconciliation.

The company's support of an Indigenous voice being enshrined in the Constitution is aligned with leading Australian conglomerates such as Woolworths, Wesfarmers, Rio Tinto and BHP, but providing travel for the Yes23 Campaign and Uluru Dialogue teams invited controversy, given public backlash over its high airfares and cancelled flights.

Mr Joyce said Qantas was covering their costs "so they can engage with regional and remote Australians".

"We're supporting the Yes23 campaign because we believe a formal Voice to Government will help close the gap for First Nations people in important areas like health, education and employment," he said at the official launch at Sydney Airport, alongside Prime Minister Anthony Albanese and other prominent First Nations leaders, including football great Adam Goodes and advocate Noel Pearson.



Mr Albanese praised Qantas for its long-standing commitment to reconciliation and throwing its weight the Yes campaign. "Qantas has a long history of doing its bit to carry the nation, to lift all of us a little bit higher, both literally and figuratively,," he said.

But Mr Giles, an Indigenous man, said big business should not take sides or spend millions supporting the campaign.

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ZAK KIRKUP

The rise of Native American tribes as major economic players has been transformative, marked by innovation and diversification.

Once reliant on casinos, now an $A61.5 billion industry, tribes have expanded into health and other sectors. This shift from casino gaming is all about self-determination and sovereignty.

The Native American experience in diversifying their economic base provides a blueprint for Aboriginal communities in Australia. The principles of self-determination, sovereignty and cultural preservation resonate deeply with both communities.

Shawn Terry, secretary of health for the Muscogee Creek Nation, speaks of a radical shift in health care, yielding an "entire economic development win". Larry Wright Jr, executive director of the National Congress of American Indians, highlighted how health care is a major economic driver.

The story of casino-based gaming in Native American economies is well-known, with the Indian Gaming Regulatory Act in 1988 considered the biggest single economic driver for tribal nations. The shift into the healthcare sector, for example, has been strategic, building financial resilience.

The Native American journey towards economic self-sufficiency offers valuable lessons for Aboriginal Australia in terms of community engagement, governance structures and innovative business practices. Collaborative efforts between the two communities could foster shared learning and growth.

Mr Terry told the National Indigenous Times it's about more than profits: "If our babies are dying quicker, then we're not going to survive as a people. Health care has to be at the centre of that."

The Native American tribes' success in transforming traditional services into economic drivers can inspire Aboriginal communities. In embracing cultural strengths and aligning them with modern business strategies, Aboriginal Australia can create a new narrative of economic empowerment.

The parallels between Native American and Aboriginal Australian experiences offer an opportunity for cross-cultural exchange. By studying the Native American model of economic diversification, Aboriginal communities can develop strategies that reflect their cultural values and regional needs, for a more inclusive and sustainable economic landscape.

This progression from gaming-based economies to a diversified portfolio reflects a sophisticated understanding of economic development and cultural preservation. It embodies the tribes' commitment to self-sufficiency, autonomy and the protection of their people, offering critical insights for Aboriginal communities in Australia.

Santos



Greg McKellar, Wongkumara Elder & Cultural Heritage Manager

"I'M PROUD OF MY COUNTRY AND THE PROTECTION OF OUR CULTURAL HERITAGE SITES."

"Being able to work on country is a privilege. Santos and Wongkumara people working together in the Lake Eyre Basin enables us to go out to country to see things physically, to see the things that my grandmother told me about."

FOR MORE INFORMATION

Scan the QR code or visit **www.santos.com**

Walk the talk for AFL star



Anthony Albanese will meet with former AFL star Michael Long after the Long Walk. Picture: AAP

DAVID PRESTIPINO

This year's 20th Long Walk will bear extra significance for Indigenous AFL trailblazer Michael Long as he strives to unite the nation behind the Voice to Parliament.

The Essendon great will again walk the 650km journey from Melbourne to Canberra, as he first did 20 years ago when setting off to speak with then-prime minister John Howard after the Aboriginal and Torres Strait Islander Commission (ATSIC) was abolished.

This year's event aligns the Voice referendum campaign and is expected to take the Australian Football hall-of-famer 30 to 40 days.

The 53-year-old is re-creating the first journey, stopping in regional communities along the way to discuss how the upcoming referendum could band the country together before reaching Parliament House for meetings with Prime Minister Anthony Albanese and Opposition Leader Peter Dutton.

In its 20 years The Long Walk has transformed into an annual charity event, where people join Long in the trek from Melbourne's Birrarung Marr to the MCG before the annual Essendon-Richmond Dreamtime game during AFL Indigenous Round.

Long said football had played a crucial role in improving the lives of Indigenous people in Australia, and the two-time premiership player believed the Voice can help change lives and bring Australians together for good.

"What I have learnt from footy, I have seen things transformed. I've seen sport change lives," he said.

"One of the greatest advocates is (former Collingwood player) Damian Monkhorst, he has become a great advocate for change."

During a 1995 match between Collingwood and Essendon, Monkhorst used racist language during a tussle with Long.

Long spoke candidly about the referendum and the opportunities it posed, inviting all Australians to join him along the journey to Canberra. The first leg began at Melbourne Town Hall on Sunday finishing later at the Bombers' Windy Hill home ground in Essendon.

"I want all Australians to come walk with me," Long said.

"I want all the sporting codes — Australian Rules, soccer, netball, basketball, rugby, swimming, tennis — to come walk with me. I want corporate Australia to come walk with me.

"I want community groups to come walk with me, and I want Aboriginal organisations to come walk with me."

More information on The Long Walk and its legs and destinations is available at thelongwalk.com.au.

SCARBOROUGH OFFSHORE FACILITY AND TRUNKLINE OPERATIONS ENVIRONMENT PLAN

For more than 35 years, Woodside has been developing LNG projects in Australia. Today, we aim to thrive through the global energy transition with a low cost, lower carbon, profitable, resilient and diversified portfolio.

We are committed to consulting and ensuring feedback from relevant persons is considered and used to inform the development of an Environment Plan for the Scarborough Offshore Facility and Trunkline Operations.

Our activities

Woodside plans to install a Floating Production Unit (FPU) and complete subsequent hook-up and commissioning activities, before start-up and operations for the Scarborough project. Gas from the FPU will be transferred through the gas export trunkline to the Pluto LNG Plant. Other activities include surveys to monitor the reservoir, as well as inspection, maintenance, monitoring and repair activities.

Located around 374 km off the coast of Dampier in Western Australia, work is planned to start in the second half of 2025. We are seeking input from relevant persons whose functions, interests or activities may be affected by the proposed operations.

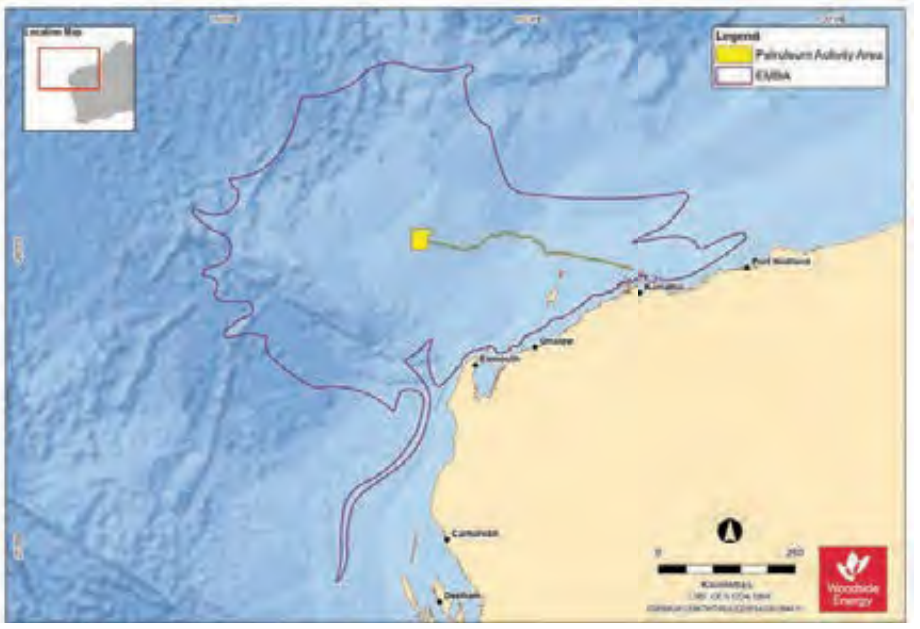
The environment that may be affected (EMBA)

The EMBA is the largest area where activities could potentially have a direct or indirect impact. The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for this EP, is determined by a highly unlikely release of marine diesel to the environment as a result of loss of damage to the production facility or vessel collision.

The EMBA represents the merged area of many possible paths a hydrocarbon release could travel depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the whole EMBA will not be affected at one time.

We want to hear from you

If you are an individual, organisation or community group and believe your functions, interests or activities may be affected by the proposed activity, we would like to hear from you by Monday, **11 September 2023** to identify as a relevant person.



Want to know more or provide input?

A feedback form and more information can be found at: **www.woodside.com/sustainability/consultation-activities**. You can also subscribe via our website to receive future information on upcoming activities.

E: Feedback@woodside.com
Toll free: 1800 442 977
woodside.com

Woodside Energy

SPORT

Mason sprints toward future



Tuqiri Mason recently clocked a 100m time of 10.92s while barefoot on grass.

JOSEPH GUENZLER

Proud Gangalu athlete Tuqiri Mason is making a name for himself in the world of athletics at only 15 years of age.

Mason recently etched his name in the record books of NSW Hastings Secondary College after shattering a two-decade standing record in the 100m spring in the open and under-16- divisions.

Despite his nerves and running barefoot with no starting blocks or specific training, Mason clocked a staggering 10.92sec, passing Adam Miller's record set 20 years ago.

Miller, who became a notable Australian sprinter with a 100m PB of 10.17sec, showcased his skills on international stages including the 2004 Olympics, 2006 Commonwealth Games and 2007 IAAF World Championships.

Though Mason's favourite event is long jump, he is grateful for what he has been able to achieve so far with such little help.

"It feels incredible to have broken the record, I'm proud and grateful for this achievement," Mason told National Indigenous Times.

"My favourite event is long jump just because I get really nervous for my running events."

During the Lower North Coast Districts competition hosted in Coffs Harbour, Mason displayed his diverse athletic prowess by clinching first place in the 100m, 200m, and long jump events.

This feat has propelled him into the next phase of competition, a testament to his natural talent and skill which he hopes to take to the highest level.

"I'm only 15 going on 16 and would love to represent my culture and country and would like to see myself in the Olympics," he said.

"I have had lots of community support which encourages me to better myself."

Despite his high ceiling for potential, financial constraints loom as a hurdle in Tuqiri's path.

With a time frame of just one month, his family is seeking support to ensure he can compete in next month's NSWCHSSA (NSW Combined High Schools Sports Association) — Secondary Athletics — Championships.

His mum Candice is proud of her son's achievements and a firm believer in his potential in athletics. "His personality is family grounded and he's a pretty chilled relaxed young boy," she told National Indigenous Times.

"If he put his mind on his athletics he can go along way.

"I remember when he was in Year 3, he had to race against the Year 6 and 7 boys and he beat them. That's how I knew he had potential."

Mason will be competing from September 5-8, coinciding with his 16th birthday on September 7.

As he embarks on this next chapter of his athletic journey, a GoFundMe account has been established to help with registration fees, uniforms, accommodation and fuel.

JARRED CROSS

A trio of young Indigenous stars have been named in the AFL Players Association's 22under22 class for 2023.

The fan-voted contest presented Demons livewire Kysaiah Pickett with his third selection, and handed debuts to St Kilda bolter Nasiah Wanganeen-Milera and former No.1 draft pick and Bulldog Jamarra Ugle-Hagan.

The trio slot in the forward pocket, back pocket and centre-half-forward respectively.

Kozzie continues his electric start to AFL footy, leading the fourth-placed Dees' goal kicking this season.

The 22-year-old signed a four-year deal to remain at the club in May, already boasting a premiership in 2021.


Jamarra Ugle-Hagan, Kysaiah Pickett and Nasiah Wanganeen-Milera.

After establishing himself among the competition's most exciting prospects, St Kilda's Wanganeen-Milera has grown into his role as a damaging half-back. His exploits are beginning to compare with his uncle and 1993 Brownlow medallist Gavin Wanganeen, and he has shaped as a major influence in St Kilda's tilt at a deep September.

The 20-year-old hasn't dipped below 20 disposals since round nine for an average of 24 touches a game in 2023, and has three times eclipsed 30 — including career-high 33 disposal efforts against Melbourne and Hawthorn, adding a goal in the latter.

His previous best was 22 touches in round 12 of his debut season last year.

As well as finding the footy, the smooth-operating South Australian averages six marks and two tackles.

There's a sense of vindication for Western Bulldogs forward Ugle-Hagan in a breakout year.

The 21-year-old has gone a long way to proving whispers of doubt around his credentials wrong with 34 majors in 2023.

Ugle-Hagan was the second-most popular selection in the side, named in 88 per cent of all fan votes for their 22. Like most key position players, Ugle-Hagan has taken time to develop into a genuine weapon in his club's forward line.

Marra has matched personal best of five goals in a game, first kicked against Melbourne last year, twice in 2023, and inspired with the feat a week after enduring racial attacks from the stands earlier in the season.

The tall has threatened to become one of the game's biggest headaches for opposition defences, with only inaccuracy in front of goal — 34.35 so far in 2023 -— holding him back.

Carlton's Jesse Motlop missed out on selection after being named in the 22under22 squad of 40 earlier this month.

Community consultation on the draft replacement of the Intersecting Streams Water Sharing Plan

The NSW Government has developed the draft replacement water sharing plan for the Intersecting Streams Unregulated River Water Sources 2024.

The draft plan and supporting documentation are available for viewing on the Department of Planning and Environment website from 4 September to 13 October 2023.

Join us at one of the information sessions listed below to learn more about:

- the draft replacement plan
- how to make a submission.

Information sessions

Date/Time	Location	Event time
14 September 2023	Live webinar	5pm – 6.30pm
19 September 2023	Face to face meeting Lightning Ridge Bowling Club, 29 Morilla Street, Lightning Ridge NSW 2834	10am – 12.00pm

During the public exhibition period DPE staff will also be available for 30 minute booked phone interviews.

To find out more information, including how to make a submission please visit:
water.nsw.gov.au/intersecting-steams-water-sharing-plan
or email intersectingstreams.wsp@dpie.nsw.gov.au

Submissions close at 11.59 pm on Friday 13 October 2023.

LP1022

Parramatta Road, Camperdown NSW Aboriginal Cultural Heritage Assessment – Community Consultation Stage 1

Urbis has been commissioned by the University of Sydney's University Infrastructure Unit (the Proponent) to conduct an Aboriginal Cultural Heritage Assessment (ACHA) for their site on Parramatta Road, Camperdown NSW (Lot 1/DP 1171804). This ACHA has been prepared to support a State Significant Development Application, which seeks approval for the development of a multi-disciplinary General Teaching Space at the site. The proponent can be contacted directly via:

Julie Parsons
Community Engagement Manager
julie.parsons@sydney.edu.au
Services Building G12, 22 Codrington Street, Darlington, 2006

In accordance with Section 4.1.3 of the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010) and Clause 80C of the NSW National Parks and Wildlife Regulation 2009, the Proponent is seeking the registration of Aboriginal persons or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) that may be present in the subject area.

The purpose of community consultation with Aboriginal people is to assist the Proponent in the preparation of the ACHA and the assessment of the cultural heritage significance of the subject area.

Please register your interest in writing to the contact details provided below by 21st September 2023.

Ginger-Rose Harrington

Consultant
Urbis Pty Ltd gharrington@urbis.com.au
Level 8, 123 Pitt Street, Sydney, 2000.

Please be advised that the Proponent is required to forward the names of Aboriginal persons and groups who register an interest to The Aboriginal Cultural Heritage Regulation Branch- Heritage NSW
- Department of Premier and Cabinet and the Metropolitan Local Aboriginal Land Council; unless the person or group specifies that they do not want their details released.

ConocoPhillips

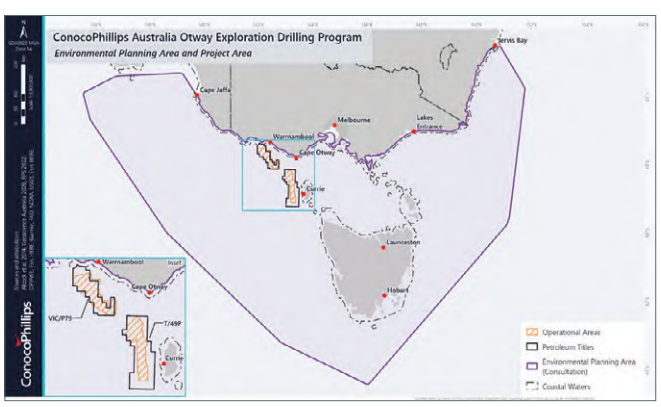
Relevant Person Consultation:

ConocoPhillips Australia Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

SCAN HERE

CMM29892CP_KOR

Notice under Section 29 of the *Native Title Act 1993* Exploration Licence Number EL9590 (Act 1992)

This notice is given in accordance with the requirements of section 29 of the *Native Title Act 1993* (Commonwealth).

Description of the nature of the act
Pursuant to the *Native Title (Right to Negotiate (Exclusion) — NSW Land) Determination No. 1 of 1996* (Cth), Exploration Licence 9590 includes a condition to the effect that the holder must not prospect on any land or waters covered by the licence in relation to which native title exists without the prior written consent of the Minister administering the *Mining Act 1992* (the 'Native Title Condition').

The Minister administering the *Mining Act 1992* intends to give consent to prospecting on land subject to native title in the licence in accordance with the *Native Title (Right to Negotiate (Inclusion) — NSW Land)* Approval No. 1 of 1996 (Cth).

Should consent be granted, the licence holder may apply to renew or transfer the licence prior to it expiring (including partial renewals or partial transfers).

Note: If the consent is granted, it will apply to any renewal, re grant or re-making (including partial renewals or partial transfers) or extension of the term of the licence, which may be valid pursuant to section 24MD(1) of the *Native Title Act 1993* (Cth) without a further notification under section 29.

Holder's details
Westrock Minerals Pty Ltd (ACN 625 790 187) is the holder of Exploration Licence 9590 for Group 1 minerals.

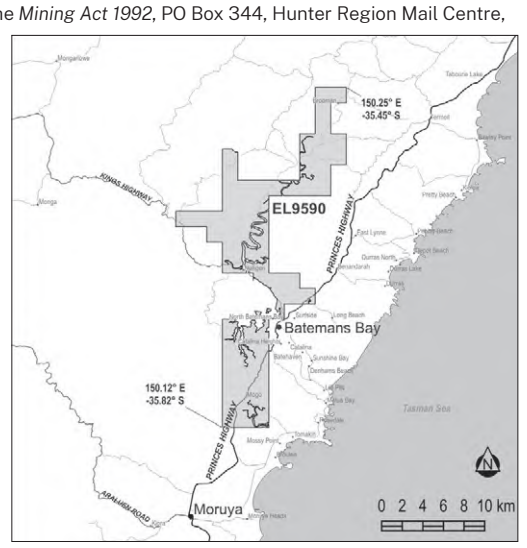
The licence contains a condition that the holder must not prospect on any land or waters on which native title exists without the prior consent of the Minister administering the *Mining Act 1992*. The licence holder has sought the Minister's consent to conduct prospecting activities in the entire licence area.

Description of area that may be affected
The entire area of Exploration Licence 9590 which covers about 69 units and is situated approximately 32 kilometres north of Moruya, in the State of NSW.

Name and postal address of person by whom the act would be done
The Minister administering the *Mining Act 1992*, PO Box 344, Hunter Region Mail Centre, NSW 2310.

How further information about the act can be obtained
Further information may be obtained from; Assessments and Systems, Regional NSW on (02) 4063 6600 or titles@regional.nsw.gov.au.

Notification Day
For the purposes of section 29(4) of the *Native Title Act 1993* the notification day is 21 September 2023 Under section 30 of the *Native Title Act 1993* persons have until 3 months after the notification day to take certain steps to become native title parties in relation to this notice.



SB10566

ConocoPhillips

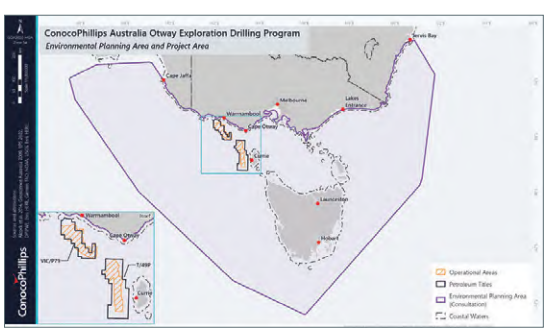
Relevant Person Consultation:

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We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

SCAN HERE

CMM29892CP_KOR

Australian Government
Australian Heritage Council

Environment Protection and Biodiversity Conservation Act 1999

PROPOSED AMENDMENTS TO A NATIONAL HERITAGE LISTING: WAVE HILL WALK OFF ROUTE

CALL FOR PUBLIC COMMENT

The Australian Heritage Council is proposing amendments to the **Wave Hill Walk Off Route** National Heritage listing to correct factual errors in the listing. The National Heritage List recognises places that are of outstanding significance to the nation for their natural, Indigenous and/or historic heritage values.

The Australian Heritage Council, on community advice, proposes to change the date of the Walk Off from the **22nd of August 1966 to the 23rd of August 1966**. Further to this, parts of the Buchanan and Buntine highways that relate to the Walk Off Route have been renamed. The Council proposes amendments to the listing to correlate the historical route to contemporary maps. The Council's initial assessment concludes that all of these proposed amendments do not alter the National Heritage listed values of the place.

Comments are invited on these proposed amendments to the Wave Hill Walk Off Route listing. Further information is available by contacting the Australian Heritage Council at **heritage@dcceew.gov.au**. The Wave Hill Walk Off National Heritage listing can be accessed via the Australian Heritage Database, **http://www.environment.gov.au/cgi-bin/ahdb/search.pl**.

Contact us

Please provide any written comments by **5:00 PM AEST** on **2 November 2023**.

Australian Heritage Council
GPO Box 3090
CANBERRA ACT 2601

Or by email to: **heritage@dcceew.gov.au**

All comments will be provided to the Minister for the Environment for consideration when making her decision on whether or not the proposed amendments alter the heritage values of the National Heritage Listing.

23435D_4230

Lifeline **13 11 14**

NGUJIMA-YIN FLOATING PRODUCTION STORAGE AND OFFLOADING FACILITY OPERATIONS AND PYRENEES FACILITY OPERATIONS ENVIRONMENT PLANS

For more than 35 years, Woodside has been developing and operating LNG and oil projects in Australia. Our focus is the safety, reliability, efficiency and environmental performance of our operations and activities.

Woodside consults so that feedback from relevant persons is considered and used to inform the revision of two operations Environment Plans for the Ngujima-Yin Floating Production Storage and Offloading Facility Operations and Pyrenees Facility Operations.

Our activities

Woodside plans to continue producing crude oil at the Pyrenees and Ngujima-Yin Floating Production Storage and Offloading (FPSO) facilities and is submitting a five-year revision to the operational Environment Plans. The Environment Plans for the Pyrenees FPSO and Ngujima-Yin FPSO facilities will cover operations including offloading and associated activities, inspection, maintenance, monitoring, and repair of the FPSOs and subsea infrastructure, disconnection and sail-away of the FPSO facilities when required, and production from two proposed additional wells from the Ngujima-Yin FPSO.

The Pyrenees FPSO is located about 45 km northwest of Exmouth, Western Australia. Production began in 2010 and is scheduled to end in 2035. The Ngujima-Yin FPSO is about 50 km, northwest of Exmouth, Western Australia. Production began in 2008 and is scheduled to end in 2028.

We are seeking input from relevant persons whose functions, interests or activities may be affected by continued operations.

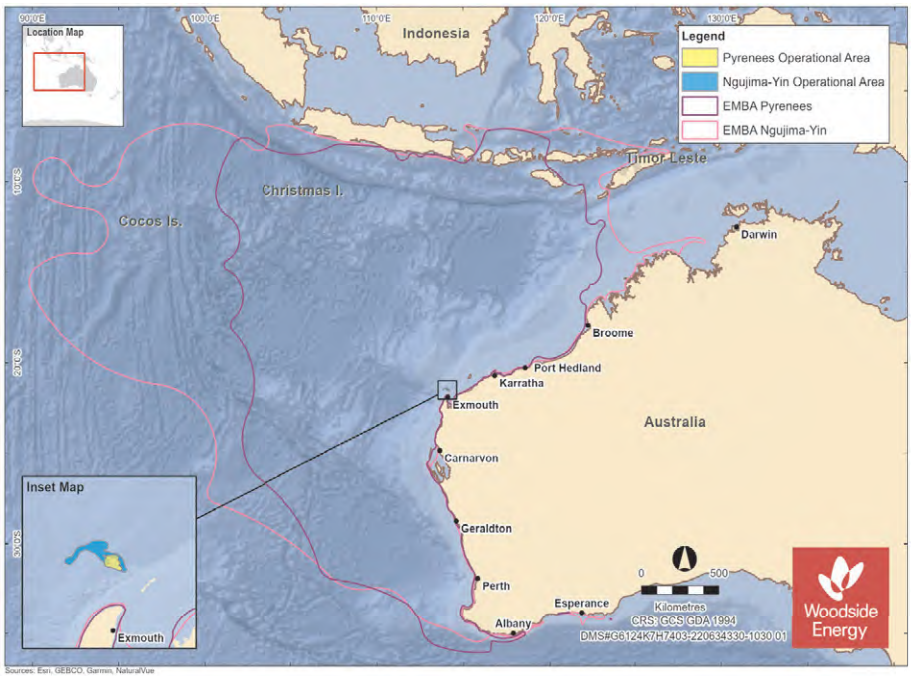
The environment that may be affected (EMBA)

The EMBA is the largest area where activities could potentially have a direct or indirect impact. The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for these two Environmental Plans, is determined by modelling a highly unlikely release of hydrocarbons from loss of well control or a vessel collision with the FPSO with enough force to breach the hull.

The EMBA represents the merged area of many possible modelled paths that a highly unlikely hydrocarbon release could travel if left unmitigated and depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the whole EMBA will not be affected.

We want to hear from you

If you are an individual, organisation or community group and believe your functions, interests or activities may be impacted by our activities, we would like to hear from you by **Friday, 27 October 2023** to identify you as a relevant person.



Want to know more or provide input?

A feedback form and more information can be found at:
www.woodside.com/sustainability/consultation-activities.

You can also subscribe via our website to receive future information on upcoming activities.

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Toll free: 1800 442 977
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Introductions

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62yo funloving romantic	**67yo** dte fun tradesman
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BACHELOR OF THE WEEK
Successful Professional educated tall fit outgoing 50s single never married no children, confident adventurous well travelled who enjoys the finer things in life with a wide variety of interests. Desires marriage & children in the near future with a bright active honest genuine loving likeminded woman, of any nationality. To meet simply call Sincere Introductions Est 1976 on 08 84104888 or come into 100a Currie St Adelaide OPEN 11am to 5pm Mon to Sat

Notices

Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30596CP

Environment Protection Authority

LICENCE CONDITION RELAXATIONS

Notice is hereby given pursuant to Section 46 of the Environment Protection Act 1993, of the proposal to vary licence 50757 held by the CU-RIVER PORT AUSTRALIA PTY LTD for their site located at the former Port Augusta power station site, Power Station Road, PORT AUGUSTA.

In simple terms, this proposed variation involves the alteration of a licence condition that requires the licensee to provide the EPA with a financial assurance of $2.4m. This is to ensure funds are available to meet closure obligations associated with the site in the event the licensee is not able to fulfil them. The condition was initially added to the licence in May 2019. In order to reflect progress made with site rehabilitation since 2019 and the associated reduction in the remaining costs required, the amount of financial assurance required is proposed to be reduced to $1.075m.

Written public comment is invited and must be received by **5.00 p.m. on 6th December 2023.**

Submissions for relaxations may be emailed to epalicensing@sa.gov.au or posted to:
Regions & Licensing Services, EPA
GPO Box 2607
Adelaide SA 5001.

EPA South Australia

W20545

CITY OF Playford

Adoption of Community Land Management Plans (CLMPs)

NOTICE is hereby given that at the City of Playford Ordinary Council meeting held on 26 September 2023 Council resolved to adopt the updated CLMPs, pursuant to section 198(4) of *the Local Government Act 1999*.

buy search sell .com.au

CITY OF TEA TREE GULLY
Naturally Better

Removal of vehicle notice

Take note that in accordance with Section 237 of the Local Government Act 1999, the following vehicle has been removed from the place stated in this notice:

Make/Model	Registration	Removed from	Date Removed	Time Removed
Hyundai Sedan	WZC002	Milne Road, Modbury Heights	27 October 2023	3.26pm

Council has been unable to locate the registered owner of this vehicle. If you are the registered owner of this vehicle, contact the City of Tea Tree Gully on 8397 7313.

If the registered owner of the vehicle does not take possession of the vehicle and all expenses related to the removal, custody and maintenance of the vehicle and of publishing this notice are not paid within one month of the date of this notice, Council will take steps to sell or dispose of the vehicle in accordance with Section 237 of the Local Government Act 1999.

For more information, please contact us on 08 8397 7444 or visit www.teatreegully.sa.gov.au

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Local Government

AGM & Annual Report 2022-2023

Members of the community are invited to make submissions regarding the Draft Annual Report 2022-2023.

Submissions are for discussion at the Annual General Meeting to be held on Tuesday 12 December 2023 at 4.50pm at the West Coast Council, 11 Sticht Street Queenstown. Submissions should be in writing to the General Manager, PO Box 63 Queenstown Tas 7467, or sent via email to communityconsultation@westcoast.tas.gov.au and received no later than close of business Thursday 7 December 2023.

The draft Annual Report is available to view at Council's Agencies and website www.westcoast.tas.gov.au

Enquires should be directed to Council's Executive Officer at ea@westcoast.tas.gov.au or by calling (03) 6471 4721.

David Midson
GENERAL MANAGER

TA5875657

WESTCOAST.TAS.GOV.AU

Local Government

Ordinary Meeting of Council

An Ordinary Meeting of Council will be held at the West Coast Council Chambers, 11 Sticht Street Queenstown on Tuesday 28 November 2023, commencing at 5.00pm.

Meeting attendance is via registration and is subject to Council's Covid-19 safety procedures.

The public may view the meeting Live by visiting www.westcoast.tas.gov.au and following the prompts.

Questions without notice can be submitted to Council via the General Manager, 7 days prior to the day of the meeting.

Public questions and attendance registration, should be submitted to ea@westcoast.tas.gov.au or post to PO Box 63 Queenstown 7467.

The Agenda will be available on Council's website from Thursday 23 November 2023.

David Midson
GENERAL MANAGER

TA5875654

WESTCOAST.TAS.GOV.AU

Local Government

BURNIE CITY COUNCIL

NOTICE OF APPLICATION FOR LAND USE PERMIT
(Section 57(3) Land Use Planning and Approvals Act 1993)

Application for use and development of land has been received:-

Application No:	DA 2023/103
Site:	2-10 Massy-Greene Drive SOUTH BURNIE - CT 165351/7
Proposal:	Convert exiting billboard sign into an Illuminated sign
Discretionary Matters:	Reliant on performance criteria for grant of permit – Clause C1.6.1 (P1.2), C1.6.2 (P1) & C1.6.3 (P1)

The application may be viewed at the Burnie City Council Offices, 80 Wilson Street, Burnie between 8.30am - 5.00pm Monday to Friday inclusive or on Council's website at – www.burnie.tas.gov.au/permits

Any person may make representation relating to an application in writing addressed to the General Manager, Burnie City Council, PO Box 973, Burnie 7320 or burnie@burnie.tas.gov.au by no later than 5.00pm on 6 December 2023

Dated: 22 November 2023

Simon Overland
GENERAL MANAGER

TA5877804

www.burnie.tas.gov.au

BURNIE CITY COUNCIL

CENTRAL COAST COUNCIL

19 King Edward Street
Ulverstone Tasmania 7315

Tel. 03 6429 8900
admin@centralcoast.tas.gov.au
www.centralcoast.tas.gov.au

NOTICE OF THE ANNUAL GENERAL MEETING OF THE COUNCIL

Notice is given that the Annual General Meeting (AGM) of the Central Coast Council will be held in the Council Chamber at the Administration Centre, 19 King Edward Street, Ulverstone on 11 December 2023. The meeting will commence at 7pm.

The Council's Annual Report 2022–2023 is now available from the Council's website under the Council > Publications tab or from the Council's Administration Centre, 19 King Edward Street, Ulverstone or the Service Centre, 78 Main Road, Penguin.

Written submissions in respect of the Annual Report 2022–2023 are invited and should be lodged with the Executive Services Officer by 4pm on Tuesday 5 December 2023.

Submissions can be lodged electronically to admin@centralcoast.tas.gov.au or posted to PO Box 220, Ulverstone TAS 7315.

Submissions and responses are included in the agenda for discussion at the meeting. A light supper will be provided.

RSVPs are essential and can be made by email to mellissa.eastley@centralcoast.tas.gov.au or by calling tel. 6429 8900 by 4.30pm on Thursday 30 November 2023.

Date of notification: 22 November 2023.

BARRY OMUNDSON
General Manager

Public Notices

CRADLE COAST AUTHORITY
Stronger Councils, Stronger Region

Notice of Annual General Meeting

The Annual General Meeting of Cradle Coast Authority will be held on **Tuesday, 12th of December 2023 at 9.30am** at Cradle Coast Authority, 1-3 Spring Street, Burnie.

The business of the meeting is to present the Annual Report.

Any queries please contact Cradle Coast Authority via email admin@cradlecoast.com or phone 6433 8400.

The Hon Sid Sidebottom
Chairman

TA5877840

ADMINISTRATION AND PROBATE ACT 1935

Notice to Creditors

Donald Lawrence Viney, late of Umina Park Nursing Home, Burnie in Tasmania, Deceased; Creditors, next of kin and others having claims in respect of the estate of the deceased, who died on 19 June 2023, are required by the Personal Representatives, Alan Graeme Smith and Noel Edward Bottle, to send particulars of such claim to the Personal Representatives C/- Rod Glover Legal Lawyers & Conveyancers, PO Box 42, Wynyard in Tasmania by 22 December 2023, after which date the Personal Representatives may distribute the assets having regard only to the claims of which the Personal Representatives then have notice.

Dated this 22nd day of November 2023

ROD GLOVER LEGAL

Practitioners for the Personal Representatives

Public Notices

TASCAT

In the General Division - Resource & Planning Stream

A hearing has been listed for the following matter/s:

No & Details	Date of Hearing
P2023/19 30 Arthur Street, Shearwater	Tues 28 - Wed 29 November 2023 10.00 am

Any person, who complies with the statutory requirements, may apply to be made a party to the proceedings forthwith, in writing to GPO Box 1311, Hobart 7001 or email resourceplanning@tascat.tas.gov.au.

Please read information on the Tribunal's website at www.tascat.tas.gov.au regarding attending Tribunal hearings and COVID-19 safety requirements.

Tribunal offices: 38 Barrack Street, Hobart
Postal Address: GPO Box 1311, Hobart
Email: resourceplanning@tascat.tas.gov.au



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KENTISH COUNCIL

APPLICATIONS FOR PLANNING PERMIT

The following applications have been received under Section 57 of the *Land Use Planning & Approvals Act 1993*:

Application No.:	K-DA060/2023
Site:	27 Williams Road, Wilmot
Proposal:	Visitor Accommodation – proposed Caravan Park Sites (x12) with underground power.
Application No.:	K-DA069/2023
Site:	Lot 1 Smith Road, Roland (CT231813/1)
Proposal:	Residential – proposed Dwelling.

The applications and associated materials will be available for inspection at the Council office during normal office hours or at www.kentish.tas.gov.au for a period of 14 days from the date of publication of this notice (not including 1 December 2023). In accordance with Section 57(5) of the *Land Use Planning & Approvals Act 1993* any person may make representation in relation to the proposals by letter addressed to the General Manager or email addressed to council@kentish.tas.gov.au by close of business 7 December 2023.

Dated at Sheffield this 22 November 2023.
Gerald Monson
GENERAL MANAGER

KENTISH

TA5877884



Public Notices



Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30603CP

‘Solar garden’ helps city dwellers buy plots

Nick O’Malley

When the idea to create a “solar garden”, in which local or city residents could buy “plots” in a regional solar farm, began to evolve, its advocates had no idea they would end up being delayed by a punishing federal tax, pandemic and foreign war.

Nonetheless, this month the final panels were bolted into place at the Grong Grong Solar Farm, which is to host the Haystacks Community Solar Garden, and by year’s end it is hoped the first “solar gardeners” will begin to receive the benefits of the clean energy it produces.

The model is simple. Supporters can either buy shares in the broader community solar farm, or they can purchase “plots” in the garden. All 175 plots have been sold, for $4200 each. Their owners will receive a discount of $505 a year on their electricity bills for the next decade, while the family that owns the land on which the solar farm has been built is benefiting from the lease.

“It’s a little bit of income-proofing for us,” said Gemma Purcell, who with her husband, Reiner Meir, grows cereals and runs cattle and sheep on the farm not far from Narrandera, in the NSW Riverina.

The income stream will be welcome, she says, particularly if dry weather sets in, but she was drawn to the idea because she wanted to contribute to a climate change solution. Using her land to help create a medium-scale solar farm that would give access to the benefits of solar to renters and apartment owners in cities made sense.



Kristy Walters and Jonathan Prendergast at HCB Solar in Grong Grong. Photo: Patrick Ronald

She recalls telling another of the project’s proponents, Kristy Walters, director of the Community Power Agency, “we grow the cereal and grains that make your breakfast and we grow your meat, we may as well grow your energy too.”

Conversations that began in 2016 evolved into making plans between Purcell, the Community Power Agency and an energy retailer. By the time they had found a solar developer, Komo Energy, and were ready, the COVID-19 pandemic had brutalised supply chains, causing delays and driving up costs. As the situation eased, the Russian invasion of Ukraine shook up the energy market, eventually knocking out the electricity retailer the farm had begun discussions with. The enterprise suffered another blow when they discovered a tax regulation change introduced under the Abbott government imposed a heavy impost on not-for-profit renewable energy outfits.

Walters says many of the garden’s subscribers are as interested in supporting renewable energy as they are in cost savings. One purchaser, she says, bought three plots for families who lost their homes in the Lismore floods. The gift will ease their bills.

Others have been bought by parents of children starting their lives in city apartments without space for solar panels.

While Australia has the highest per capita uptake of rooftop solar, about 30 per cent are “locked out” because they rent, live in an apartment, or have an unsuitable roof. A solar garden provides a way to access those benefits, says Walters.

The relatively small scale of the development – about 1.5 megawatts of power generated on a parcel of land about the size of a Bunnings store with its car park, according to Purcell – means it can connect to existing power lines without needing expensive infrastructure, says Walters. It will generate enough electricity for about 700 homes.

BUSINESS Page 24

Warning as deadly heatwaves loom

Natassia Chrysanthos
Angus Thompson

Heatwaves are silent killers that lead to more deaths each year than other natural disasters and Australians need to be prepared for them, Emergency Management Minister Murray Watt has said before before what is forecast to be the country’s hottest and driest weather since the Black Summer.

Melbourne, Sydney and Canberra have all endured heatwaves this month and the Bureau of Meteorology last week declared an El Nino event and a positive Indian Ocean Dipole.

Watt said that would bring a more difficult summer, in terms of hot weather risk, than the country had experienced since the Black Summer of 2019-20.

“And while there’s been a lot of focus on bushfires, and understandably so, one of the other risks that we face this year is heatwaves, which of course are the silent killer of Australians,” he said yesterday. “Actually, we lose more people to heatwaves every year than we do from other forms of natural disasters.”

As the federal government convened its first major summit of 2023 for emergency services, different governments and the private sector to get ready for the summer, Watt said the elderly and disabled were at greatest risk. “Some people will be better positioned than others, depending on whether they have air-conditioning in their homes,” he said.

> *‘Look after your neighbours, in particular the elderly.’*
>
> Joe Buffone, Emergency Management Australia

“But we’re also working with local governments around public libraries, swimming pools, public facilities that people can use to get relief in those heatwave conditions.”

Brianna Casey, chief executive of Foodbank, said she was particularly concerned about the impact on cash-strapped clients who “just don’t have the resilience that we need right now”.

“We’ve already got people seeking food relief bringing in empty containers of water for us to actually freeze on their behalf in lieu of freezers because they can’t afford the running costs of keeping fridges and freezers on,” she said.

Joe Buffone, director-general of Emergency Management Australia, said the agency had been learning from North America and Europe.

“But there is a national framework that makes sure there’s consistency and warning. We’re also working with the energy sector and with health sectors to make sure that they are acutely aware of the potential impacts of heat,” he said.

“The big focus is around people making sure that they have the information to protect themselves and have support. Look after your neighbours, in particular the elderly, and those that have [mobility issues].”

The Bureau of Meteorology’s heatwave warning service provides alerts via its mobile app four days in advance. The alert also provides health messages tailored to particular areas or at-risk communities.

Relevant Person Consultation:

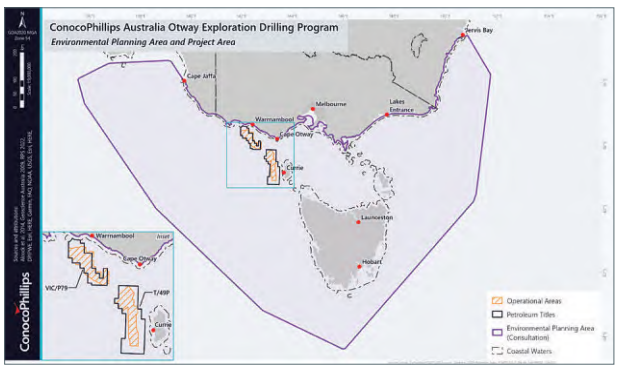
ConocoPhillips

ConocoPhillips Australia Otway Exploration Drilling Program

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ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

SCAN HERE

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

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CMM29888CP_AGE

Joyce in firefight as an inquiry turns into an inquisition

ANALYSIS

Clancy Yeates



□antas boss Alan Joyce received applause from sharemarket types when he delivered his final profit as chief executive last week, but the divisive CEO received a far frostier reception at a parliamentary hearing yesterday.

The inquiry was about the cost of living, and Joyce had been summoned last week to make his first appearance before the Senate in 14 years. But Joyce endured a fierce grilling, with the questioning significantly more venomous than the standard fare most CEOs often endure.

The inquiry turned into a full-blown interrogation of Joyce over issues spanning from aviation regulation, to whether □antas had granted the prime minister's son a membership of the exclusive Chairman's Lounge, to □antas' reputation with the public.

The aggressive questioning revolved around the litany of complaints surrounding the airline.

Labor senator Tony Sheldon, a former head of the Transport Workers' Union and long-time critic of Joyce, was particularly forceful. He fired questions at Joyce over issues including the airline's handling of unused credits for flights that were cancelled in COVID□□ antas' industrial arrangements with staff□and the damage to its corporate reputation from cancellations.

He put it to Joyce that the company was the "most discredited" in Australia and wanted to know if this had been raised by the □antas board.

Joyce dug in, defending the airline and at one point telling Sheldon□"The facts that you're raising are wrong. And senator, I know you're getting a bit worked up, but please … give us the privilege of just not interrupting every few minutes."

Late in proceedings, which were extended for half an hour, committee chair Liberal senator Jane Hume intervened to tell Sheldon he was using a "slightly aggressive tone".

Joyce acknowledged □antas had opposed a request by □atar Airways to sharply increase how many flights it flew to Australia, though he would not reveal what he had said to ministers about this.

The government recently rejected the □atar Airways request, and Joyce backed the decision on the grounds of protecting the national interest.

Senators appeared particularly keen to explore the □atar rejection, no doubt partly because of comments from Assistant Treasurer Stephen Jones, who yesterday was quoted as saying the record $2.5 billion profit from □antas last week was a "good news story".

Late yesterday, Jones' office was directing media questions about these comments to Transport Minister Catherine King.

Jones' comments didn't do Joyce any favour at the inquiry and while he argued it was common for governments to make decisions such as this, it is a tough message for him and the Albanese government to sell.

Qantas boss defiant over Qatar call

Amelia McGuire

□antas boss Alan Joyce has again defended the government's choice to reject an application by □atar Airways for more flights to Australia, hours after assistant treasurer Stephen Jones said it was in the national interest to protect □antas from foreign carriers.

Joyce received a fierce two-hour grilling from the Senate select committee on the cost of living crisis in Melbourne, just days after the airline group – which controls 60 per cent of the domestic market through carriers □antas and Jetstar – revealed a record $2.47 billion profit.

"We think Australia should protect its national interest," Joyce said.

Joyce appeared at the inquiry with Jetstar boss Stephanie Tully and □antas' head of corporate affairs, Andrew McGinnes. All three were embroiled in at times hostile exchanges with senators over allegations the airline had made the cost of living crisis worse for its staff and customers.

Joyce repeatedly asked to be granted the opportunity to speak after senators interrupted to demand he answer the question asked, rather than give a speech littered with information already on the public record.

Had □atar Airways been granted the right to increase to 21 services a week, it would have generated up to $800 million additional revenue for the tourism industry and put downward pressure on airfares to Europe. However, Joyce countered that □atar had the option to fly bigger aircraft to smaller cities including Adelaide and Darwin if it was truly committed to boosting seat capacity in Australia.



Alan Joyce defended Qantas' profits during the Senate cost of living inquiry. Photo: Eamon Gallagher

Earlier yesterday, Assistant Treasurer Stephen Jones told media the federal government had made its call on the □atar Airways request to ensure □antas was profitable, contradicting previous statements by Transport Minister Catherine King, who has faced backlash over last month's decision.

King said yesterday she disagreed with Jones' characterisation.

"I wouldn't have used the same words that Stephen did … I've repeatedly said this was a decision that was taken in the national interest, and there's no one factor that swayed my consideration," King said.

She also said the government had historically rejected multiple applications for additional bilateral air rights from other governments, deeming it "entirely unremarkable".

Joyce reiterated he would not comment on a report by the *Australian Financial Review* that said the 23-year-old son of Prime Minister Anthony Albanese, Nathan, had been issued a membership to the airline's Chairman's lounge, usually reserved for business leaders and politicians.

Joyce – who is the only AS□-100 chief executive to be summoned to appear before the inquiry so far – had a particularly heated exchange with Senator Tony Sheldon, a Labor MP who has long been critical of Joyce and formerly held senior positions within the Transport Workers Union, over □antas's alleged obfuscation on flight credits.

□antas conceded after relentless questioning that the true sum of COVID-19 credits yet to be redeemed remains at least $100 million higher than the $370 million figure it has repeatedly referenced when accounting for Jetstar and overseas-based bookings.

Tully said the outstanding amount for Jetstar bookings was about $100 million, with the majority for tickets worth less than $100. The outstanding dollar figure for overseas bookings is expected to be between $50 million and $100 million, but □antas said it would provide more information on notice.

The group has refunded $3 billion in COVID-19 travel bookings that the airline cancelled due to COVID-19 and has extended their expiry three times.

Relevant Person Consultation:

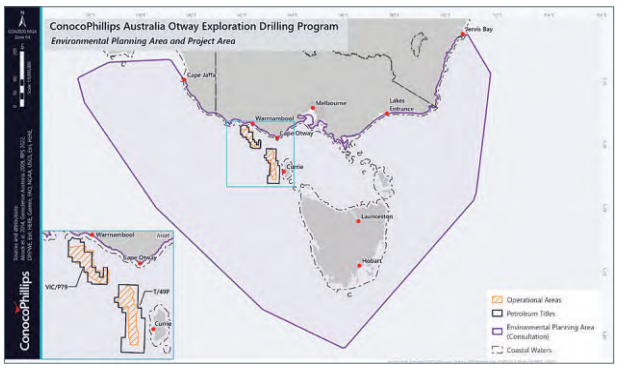
ConocoPhillips

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ConocoPhillips

CMM30598CP

CITY OF MELBOURNE DRAFT PLACE AND ROAD NAMING POLICY AND GUIDELINES OPEN FOR COMMUNITY CONSULTATION

Council has drafted a Place and Road Naming Policy and Guidelines for community feedback.

Under the draft policy, Melburnians will have a greater say in naming new and unnamed lanes, roads and public spaces, with an emphasis on correcting the imbalance that sees women and Aboriginal culture underrepresented.

The policy also shifts to a community-led naming approach, to ensure Melbourne is reflective of its diverse community.

Visit Participate Melbourne to have your say before **Wednesday 20 December 2023** at **participate.melbourne.vic.gov.au/place-and-road-naming-policy**

For more information please visit our website **melbourne.vic.gov.au**

CITY OF MELBOURNE



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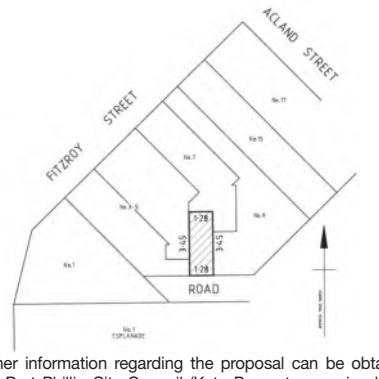
THE AGE

CITY OF PORT PHILLIP

PROPOSED DISCONTINUANCE AND SALE OF ROAD ADJOINING THE PROPERTIES AT 3-5, 7, 9 AND 15 FITZROY STREET, ST KILDA VIC 3182

PUBLIC NOTICE INVITING SUBMISSIONS UNDER SECTION 223

Port Phillip City Council ("**Council**"), gives notice under section 206 and clause 3 of Schedule 10 of the *Local Government Act 1989* ("**1989 Act**") and section 114 of the *Local Government Act 2020* that Council proposes to discontinue the road adjoining the properties at 3-5, 7, 9 and 15 Fitzroy Street, St Kilda VIC 3182, being the land contained in certificate of title volume 2591 folio 074 and as shown hatched on the plan below, and to sell that land to the owner of the properties at 3-5, 7, 9 and 15 Fitzroy Street, St Kilda VIC 3182.



Further information regarding the proposal can be obtained from Port Phillip City Council (Kate Psomotragos via phone: 03 8563 7885).

Any person may make a submission on the proposal. Any person wishing to make a submission must do so in writing by Wednesday 20 December 2023.

Submissions should be submitted via Council's website or addressed to Kate Psomotragos and posted to Port Phillip City Council, Private Bag 3, St Kilda, Victoria 3182. Submissions can also be hand delivered to 99A Carlisle Street, St Kilda 3182.

All submissions will be considered in accordance with section 223 of the 1989 Act. No further community consultation process will be undertaken.

Any person making a submission is entitled to request in the submission that the person wishes to appear in person, or to be represented by a person specified in the submission, at a meeting to be heard in support of that submission.

Any person requesting to appear in person or to be represented by a person specified in his or her submission will be notified of the day, time and place of the meeting of the Council or of a committee determined by the Council to hear submissions.

Following consideration of submissions, Council may resolve not to discontinue the road or to discontinue the road and either sell the land from that road or retain the land.

CHRIS CARROLL
Chief Executive Officer

G13072767AA-211123

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Commercial Real Estate

HERITAGE ACT 2017

PLEASE TAKE NOTICE THAT an application under Section 93 of the Heritage Act 2017 for a permit for works to undertake internal renovations to join two tenancies including enclosure of outdoor verandah, obstruction of original features, installation of fireplace, new outdoor seating area, alterations to existing entry, and internal demolition of original fabric has been lodged with the Executive Director, Heritage Victoria.

A copy of the application is available for inspection at www.heritage.vic.gov.au or at the offices of Heritage Victoria between the hours of 10.00am and 4.00pm, by appointment only.
Telephone (03) 7022 6373 to make an appointment.

Any person may lodge a submission in respect of the application within 14 days of publication of this notice. Submissions must be in writing and addressed to Heritage Victoria PO Box 500 Melbourne 8002. Please note that any written submission received will be treated as a public document.

Law Notices

Lexie Patricia Luly, late of 17-21 Ashley Street, Reservoir, Victoria, Teacher, Deceased.
Creditors, next-of-kin and others having claims in respect of the estate of the Deceased, who died on 17 November 2022, are required by the Executor, Eleni Prineas to send particulars of their claim to them, care of the undermentioned solicitors, by 60 days, after which date, they may convey or distribute the assets, having regard only to the claims of which they then has notice.
VELOCITY LEGAL
PO Box 24071, Melbourne VIC 3001

Local Government Tenders

City of Moonee Valley

Tender documents can be downloaded free of charge by visiting Council's e-tendering website https://mvcc.vic.gov.au/how-do-i/apply/tenders/.

Submissions are to be lodged as detailed in the documentation via the e-tendering website no later than the specified closing date and time.

Late, emailed, hard copied or facsimiled submissions will not be accepted. Council is not bound to accept the lowest or any tender.

City of Moonee Valley

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Local Government Tenders

MANNINGHAM

are invited for:

MP000768 Physical Access and Remote Access Control Small and Medium Council Buildings

www.manningham.vic.gov.au/tenders

Tenders

Melbourne Archdiocese Catholic Schools

Registered Building Contractors are invited to register their interest for the construction of a new 2 storey 2250m2 administration and music building and associated external works, tendering in early February 2024.
To receive the Request for EOI documentation please register your interest to:

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THE AGE
INDEPENDENT. ALWAYS.



Composer Christopher Larkin, whose work will be performed at Hamer Hall on Friday. Photo: Ben Searcy

than just bleeps

planning and engagement manager, Elise Lerpiniere, says game music is a natural extension of the orchestra's 50-year history of performing narrative art forms like opera and ballet. The concert will feature music from independent games such as *Journey, Hollow Knight, Celeste* and *Necrobarista*.

Lena Raine, an American-Canadian composer who created the soundtrack for the platform game *Celeste*, says these concerts demonstrate to those who may not play video games how diverse and sophisticated video game music is.

Meena Shamaly, a composer and presenter on ABC Classic radio who will present Indie Symphony, agrees. "We used to think that sophisticated music, aka classical music, was music made without electronic technology, forgetting the term technology just describes any sort of advancement in tools. For example, the piano was a technological advancement on the harpsichord," she says. "It's all part of the continuum of classical music."

Earlier games did draw from classical music. *Tetris* features an electronic arrangement of Pyotr Tchaikovsky's *Dance of the Sugar Plum Fairies,* while music in *Donkey Kong 64* was inspired by Johann Sebastian Bach's *Toccata and Fugue In D Minor*.

Indie Symphony: Video Games in Concert is at Hamer Hall on Friday.

Veteran built case on lies, cost hearing told

Michael Bachelard

Former SAS corporal Ben Roberts-Smith knew he had committed the murders described in a series of news articles, so should pay all the costs of running the defamation proceedings he brought against three newspapers, the media outlets' lawyer has argued before the Federal Court.

Roberts-Smith has accepted he is liable for the millions of dollars of costs accumulated in the war crimes case after the date of a settlement offer he rejected on March 18, 2020.

However, the lawyer for the newspapers, Nicholas Owens, SC, told the court yesterday that Roberts-Smith should have never brought the case and should pay the costs from August 2018, when he first sued.

The total cost of the case is estimated at $25 million, and the newspapers will argue Roberts-Smith's key backers at Seven West Media should ultimately pay the costs.

Roberts-Smith's lawyer, Arthur Moses, SC, countered the newspapers were "not entitled" to write stories about war crimes committed by the decorated soldier because he was entitled to the presumption of innocence.

Owens told Justice Anthony Besanko – who found resoundingly in favour of the media outlets in the defamation case in June – that Roberts-Smith had sued *The Age*, *The Sydney Morning Herald* and the *Canberra Times* for defamation, knowing "the fundamental premise" of his case was false.

"Your honour was presented with a case that was either true or false to the applicant's knowledge," Owens said. "He was the moving party to the litigation … he was the person who brought this whole thing into existence."

Owens said Roberts-Smith had given a "positive account" of his actions, spent a week being cross-examined over it, called witnesses over a month, and disputed allegations from the newspapers' witnesses over three months, all the while taking the "knowingly false position" that he had not committed the murders reported.

> *'He was the person who brought this whole thing into existence.'*
>
> Nicholas Owens, SC, lawyer for the newspapers

This was the "classic definition of an abuse of process", Owens said, because the time of the court had been invoked "to achieve an injustice, that is a result that a party knows is based on a lie".

"It corrupts the whole process of what happens after that because it involves bringing forward of false evidence … it involves a public and … vehement challenge to the honesty and reliability of witnesses that your honour knew were fundamentally honest, and it means the whole conduct of the litigation becomes a waste of both court and party time and money," Owens said.

He said the newspapers deserved to be compensated for the full cost of the litigation because they bore the burden of proving their reports had been true.

If the court disagreed, Owens said, the newspapers should receive their costs from the time that Roberts-Smith rejected a "generous" settlement offer to walk away from the litigation – each side paying their own costs – in June 2019.

However, Moses argued that Roberts-Smith should only have to pay the full costs if he had prolonged the case unduly with "groundless contentions", and if his case had been doomed to fail.

Roberts-Smith had brought the case, according to Moses, because of the "provocation" by the newspapers that he was a "war criminal who had assaulted a woman", and it was "not for them" to suggest he was a criminal.

Roberts-Smith was in an "invidious position": he could either "allow the publications to continue and trash his presumption of innocence or … protect his rights", Moses said.

The reports of allegations of war crimes were "not investigative journalism", he added, because they were already being investigated by the Inspector-General of the Australian Defence Force.

"The media were not entitled to go around publishing these articles in the situation where he was entitled to the presumption of innocence," Moses said.

Owens countered that the presumption of innocence "does not operate as some overriding prohibition on the publication of material, and therefore it cannot be used as an argument justifying why Mr Roberts-Smith chose to commence these proceedings".

Besanko reserved his decision.



Ben Roberts-Smith lost his libel case earlier this year. Photo: Nine

Relevant Person Consultation:

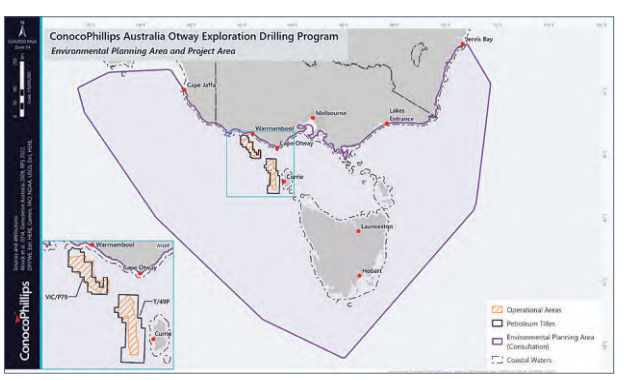
ConocoPhillips

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conocophillips.com.au

CMM29888CP_AGE

was planning donor pulled funeral' arianne How ack fro an organ the rink

Henrietta Cook



Marianne Thrush is building a new life for herself after a six-organ transplant. Photo: Justin McManus

Marianne Thrush had just weeks to live when she received an unexpected phone call.

It was a transplant nurse, urgently telling the then 32-year-old that an organ donor had been found.

"I was silent," Marianne recalls. "Then I started shaking and crying."

Marianne, who has a rare degenerative disease that means she has no muscles in her gut and experiences excruciating pain, had been on and off the organ donation waiting list for more than 12 years.

On that morning in May 2022, Marianne drove to the Austin Hospital in Melbourne's north-east with her mother Lorraine to meet a team of medical specialists.

They removed her failing organs and commenced a high-risk six-organ transplant, with a new stomach, duodenum, small bowel, pancreas, liver and colon stitched into her abdomen and connected to her arteries. A young boy had recently died in hospital, and his grieving family consented to his organs being donated. "Without that gift, I know, without a shadow of a doubt, I wouldn't be here," Marianne, now 33, says.

Over the past decade, Marianne has spent more time in hospital than at home, with one admission lasting four years.

Unable to absorb nutrients via her digestive system, she has been kept alive by bags of liquid food that have been pumped into veins above her heart. This constant intravenous feeding has led to numerous life-threatening blood infections. Frequent vomiting had disintegrated her teeth, some of which have been replaced with veneers. She experiences constant toothaches but can't afford to visit the dentist.

"I was too sick to keep going. I was planning my own funeral. I was going to give it one more month of fighting … three days after making that decision, I got the call."

Only 36 per cent of Australians are registered organ donors.

There are currently 1800 people waiting for a transplant, and in the past six years, 242 Australians have died while waiting for an organ, according to Australia and New Zealand Dialysis and Transplant Registry data.

Victoria lags the national average and all other jurisdictions in registration rates, with just 23 per cent of people signed up to be organ donors. This compares with 42 per cent of residents in NSW and 72 per cent in South Australia – the only jurisdiction where motorists can sign up for organ donation on their driver's licence.

It's a situation that puzzles Dr Rohit D'Costa, the medical director of DonateLife Victoria, which co-ordinates organ and tissue donation across the state. D'Costa says that while Victoria has low registration rates, actual rates of donations in the state are high. There were 144 deceased organ donors in Victoria last year, compared with 122 in NSW and 39 in South Australia.

In its submission to a state parliamentary inquiry into increasing organ donor registrations, DonateLife Victoria called for motorists to be able to register as organ donors when applying for their licence – a process that was in place in Victoria until 2000, when the Australian Organ Donor Register was set up as the national register.

Marianne spent almost two weeks in intensive care following her 22-hour transplant surgery and another three months recovering in hospital. She describes this time as "the toughest period in her life".

The details of Marianne's donor have to be kept confidential under organ and tissue donation laws. But Marianne and her donor's family have exchanged de-identified letters, describing their pain and gratitude. Marianne has framed the letter from the family, displaying it in her bedroom in Doreen, in Melbourne's north-east.

"Their son gets to live through me now," she says, choking back tears. "He's still alive and I think that is a pretty special thing."

Her long-term doctor, Adam Testro, who is the Austin Hospital's director of liver and intestinal transplant medicine, says one of the biggest challenges was finding a donor who was about the same size as Marianne. She weighed just 40 kilograms at the time of surgery.

The donor also needed to have the same blood type as Marianne and to die in hospital, most likely on a ventilator so their organs were not starved of oxygen. Only 2 per cent of people who die in Australian hospitals every year are suitable for organ donation.

Testro is impressed with how Marianne has bounced back.

Marianne will need to take expensive immunosuppressant medication for the rest of her life, which increases her risk of kidney dysfunction and other health complications, and she continues to experience some nausea and pain.

"It's certainly not a normal life but it's a heck of a lot better than what she had two years ago," Testro says. As time goes on, the risk of organ rejection decreases.

"If you make it through the first year, your outlook of getting to five years is pretty good," Testro says. "If you get to five years, your outlook of getting to 10 or 20 years is excellent. Most of the complications happen quite early."

Marianne has finished a real estate qualification and is now working part-time at Morrison Kleeman, an agent in Melbourne's north-east. She dreams of working full-time, having her own home and starting a family.

Chris Thomas, chief executive of Transplant Australia, says that as well as registering as organ donors, people need to communicate their wishes to their family, because families must still consent to the transplants when the time comes.

About 80 per cent of families consent to their loved ones donating their organs if they are registered, compared with 40 per cent whose loved ones aren't registered.

Marianne is also urging people to sign up and discuss organ donation with their families. She says she will always feel indebted to her donor family.

"I want them to see the life I'm creating," she says. "I want them to know that the gift their son has given me has not gone to waste."

Relevant Person Consultation:

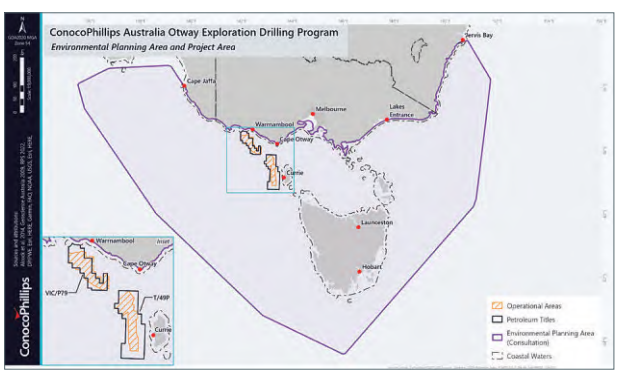
ConocoPhillips

ConocoPhillips Australia Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

SCAN HERE

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

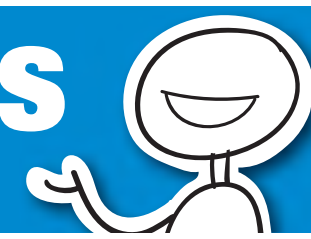
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BEGA ASSOCIATED AGENTS

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PELL RIXON 0408 604 297

General Notices

Pambula & District Community Development Ltd

Seeking Volunteer Board Members

Become part of a forward thinking Board and help reshape the future of community banking in Bega Valley Shire and Bombala area.

Our company has been established for fifteen years to provide support for our communities through banking services and by returning profits to Community groups. Pambula & District Community Development Limited (PDCDL) is a franchisee of Bendigo Bank and operates the locally owned Community Bank branches in Pambula and Bega, as well as a new office in Bombala.

Role and Responsibility:

As a director you will be,

- Motivated, well organised, self-directed and most importantly, community orientated.
- Support and drive the company's strategic direction, goals and objectives to have a real say in the future direction of this dynamic business and its support of our community.

As part of an important process of Board renewal, PDCDL is searching for new Board Directors with relevant **skills and experience in the key areas of Community, Communication, Corporate Governance and Leadership.** PDCDL is in a strong financial position, with a highly skilled volunteer Board and staff.

Send your covering letter and CV, or questions to Graham Stubbs at
Pambulacommunitybank@gmail.com

Bendigo Community Bank
Pambula, Bega & Bombala

Positions Vacant

MERIMBULA RSL CLUB - PERM PART BAR SUPERVISOR

Essential*RSA&RCG

Preferred*Experience in running a bar

*Supervising staff

Must be able to work days/nights and weekends

To apply please email your resume and cover letter to emmai@merimbularsl.com.au

Applications close Wednesday 29th November 2023 at 5pm.

(Only short listed applicants will be contacted)

Area: MERIMBULA NSW 2548

Ph: 0264951502

Email: emmai@merimbularsl.com.au

Positions Vacant

GPM Marine

Construction company looking for a Labourer /Carpenter assistant to work at the wharf project in Tathra.
Works expected to continue till mid-2024.

Requirements include a white card, own transport, strong communication & workmanship.

Please admin@gpmmarine.com.au or office on **02 9882 3755**.

Club BEGA

FULL TIME COOK/S WANTED!!!

Club Bega Ltd trading as Club Bega located at 82 Gipps Street, Bega, NSW, 2550, is currently seeking talented and dedicated Full Time Cook for the daily operation of our busy kitchen.

Major duties of Cook:

- Must display excellent prep, cooking and plating skills
- Strong emphasis on quality and consistency of dishes
- Demonstrate a keen Interest in growing food trends and techniques
- Work with the management team on food preparation and seasonal menu planning
- Stock ordering
- A sound knowledge of food safety, hygiene and WHS numbers
- Above average customer care and service skills
- Immaculate presentation and grooming
- Ability to handle large service numbers
- Cook needs to be able to train our junior team on cooking techniques and procedures
- Discuss customer requirements and request with the frost on house team

Work experience: At least three years' experience in a fast-paced kitchen is preferred.
Education/Skills: At least Certificate III in Commercial Cookery or Hospitality
Salary: A$65,000–A$75,000 + Superannuation
Annual Leave: 4 weeks
Working Hours: 38 Hrs per week

Interested candidates, please send your resume to: dave@clubbega.com.au

Club BEGA

FULL TIME CHEFS WANTED!!!

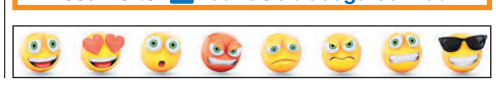
Club Bega Limited, located at 82 Gipps Street, BEGA NSW 2550, is currently seeking talented and dedicated Full Time Chefs for the daily operation of our busy kitchen.

Major duties of Chef:

- Plan and develop menus, specials, and specialty menus
- Analyse recipes to assign prices to menu items, based on food, labour, and overhead costs; & Ordering food and supplies
- Assisting in maintaining high standards and quality in food items and dishes at all times including preparation and presentation.
- Ensuring an exceptional and consistent level of service in a clean and professional environment by adhering to OH&Smethods; & Actively participate in regular team meetings.
- Follow standard recipes and preparation procedures set by the company for the preparation and cooking of food
- Assisting the kitchen team in maintaining and controlling the hygiene and aesthetics in all areas of the food operation to a high standard.
- Following directives as set by senior kitchen staff to ensure high and consistent standards.
- Reporting to management and recording all wastage, breakages, damages, and loss of assets, using the appropriate form
- Participation in regular training and development sessions
- Participate in hiring kitchen team members and conduct required training
- demonstrating techniques and advising on cooking procedures including (but not limited to) freezing and preserving of food

Work experience: At least three years' experience in a fast-paced kitchen is preferred.
Education/Skills: Relevant Qualifications in Commercial Cookery
Salary: A$65,000–A$75,000 + Superannuation
Annual Leave: 4 weeks
Working Hours: 38 Hrs per week

Interested candidates, please send your resume to: dave@clubbega.com.au



Positions Vacant

Current Vacancies Bega NSW

Production Manager - Retail

We are looking for a strong people leader to join our Lagoon St team in the Bega Valley and manage out Retail Production (Stringers and portions). If you have previous leadership experience in manufacturing and FMCG, this could be the role for you!

Please go to the website to access further information about this vacancy and to apply.

www.begacheese.com.au

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creating great food for a better future

Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

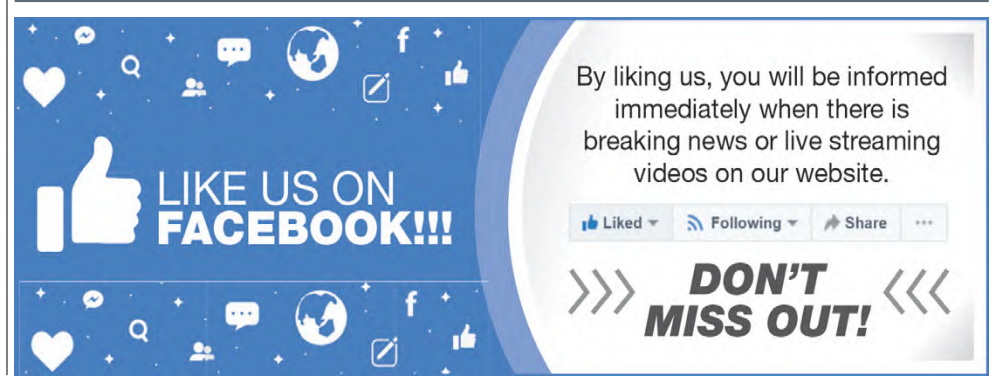
The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30607CP



Public Notices

The AGM of the Pig & Whistle Fleet Club Inc (Tathra Wharf Museum) will be held on Saturday 25 November, 3.00pm, at The Museum Wharf Rd, Tathra. All welcome.

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King Island Courier

A Beacon for the Community

Vol. 38 No. 34 | Thursday, September 7, 2023 | $1.50

Island Hub a step closer



A BREAKING ground ceremony is planned for October 19 to formally start construction of the much-anticipated new Hub complex near the Currie lighthouse.
STORY: PAGE 2

An artist's impression of the approach to the new Hub complex near the Currie lighthouse.

Life in Liberal dog

FEW expected the Government to make it to the end of the year before calling an election they would inevitably lose.

Fast forward eight weeks and following the Premier's winter "reset", the latest EMRS poll shows a remarkable turn-around in the Government's fortunes, with their primary vote up two points, and Rockliff once again ahead as preferred premier.

Stansfield says, page 4

Recycling update

A MINI-Materials Recovery Facility, a material collection vehicle, roadside bins, and shipping containers are among plant and equipment being ordered by the King Island Council in updating the collection and shipping of recylable materials.

Funding for the update is being provided under the Government's Recycling Modernisation Fund.

Full story, page 5

New fitness focus

AN INCREASED focus on health and fitness is driving the King Island Council's push for a public gym and improvements to the existing outdoor tennis and netball courts at the Currie Oval.

Funding of $1 million has been granted by the Commonwealth Government to bring this vision to life and enhance the well-being of the island's community.

Full story, page 9

BATTLE LINES OVER THE VOICE – Page 8

Hub construction a big step forward

CONSTRUCTION of the new Hub complex near the Currie lighthouse is another step closer to starting.

Federal and State Government representatives, as well as key local stakeholders, will be invited to attend a breaking ground ceremony on site on Thursday, October 19.

"Details of the event are being refined and invitations are expected to be issued in early September," the council reported in the August ordinary council meeting.

Victorian headquartered Evolve Commercial was selected as the preferred managing contractor for the King Island Hub project.

"They have operated on the island for the last four years and have an established King Island presence with a King Island-based site supervisor supported by resident and off-island trades and specialist contractors.

"Through the procurement process, this organisation demonstrated commitment to and a real passion for the project.

"The Hub project team is passionate about ensuring this new facility reflects the whole of King Island. This will be done not only in how the facility is managed and used, but also in how it is constructed."

The central fireplace will feature rock from the Grassy Scheelite mine, the display cabinet that wraps around the verandah will hold artefacts from the island's rich history and creative present, and statement pieces of furniture will be constructed from local materials, ideally by local artists.

Any community member who has a piece of King Island that could be used to showcase in this way is encouraged to contact the project team by emailing kicouncil@kingisland.tas.gov.au.

"We are particularly keen to get hold of local timbers, especially any timbers that may have washed free of the Naracoopa Jetty," the council said.

The project team has been in discussion with HydroTas regarding electrical connection to the Lighthouse Street site.

The age of infrastructure along Lighthouse Street means it is not possible to simply add a connection for a new building. Discussion between HydroTas, JMG – the electrical engineer on the project – and council's engineer is ongoing with a potential link from the Currie Harbour appearing to be the most efficient option at this time.

Since the approval of the development application in April 2023, the design team have identified some improvements to the construction of the new build, including separating the earth berm from the side of the building, reducing the structural load and creating another point of interest in a small bridge over the gap to the rooftop lookout.

This has been provided to the council's planning office for consideration in advance of the design being finalised and a building permit sought.

The title for 38 Lighthouse Street also has a covenant attached to it which aims to protect development that would diminish the impact of the Currie Museum.

Conversations with key stakeholders are under way on the operations of the King Island Hub.

An MOU has been in place with KIRDO since 2021, but the current status of the project allows for more detailed commitments on how the space will be operated once construction is completed.

This process has also included conversation with representatives from the King Island Arts & Cultural Advisory Committee, volunteers and artists at the King Island Arts & Cultural Centre, King Island Tourism and King Island Chamber of Commerce.

As well as preparing a draft operating budget for the facility, consideration is being given to a first-year program for the site.

Opportunities discussed so far include an exhibition of art works by past King Island artists in residence and Australia Day celebrations, with multiple King Island businesses and Tasmanian organisations considering hiring the facility for a board meeting in 2025.

Community members are invited to share any suggestions for one off or regular events which could be hosted at the site by emailing kicouncil@kingisland.tas.gov.au.

King Island Courier
A Beacon for the Community

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King Island Courier

Declining supply lifts beef prices

KAROLIN MACGREGOR



WHILE beef prices have fallen significantly across Australia the latest market data shows that is not the case in all countries.

Rabobank's latest beef Quarterly report says declining supply and strong consumer demand in the US, Canada and Europe is driving cattle prices higher, while in most other regions including Australia, increased supply and lower demand is making prices softer.

Report lead author and Rabobank senior animal protein analyst Angus Gidley-Baird said US cattle prices have increased almost 30 per cent over the past 12 months, while Australian cattle prices have dropped by more than 30 per cent.

"This price spread is the largest we have seen in the past 10 years," he said.

"Such a separation in prices will have consequences for beef exporters' competitiveness, and we expect to see some shift in trade volumes as a result."

A consistent theme across most markets, other than the US, is softer consumer demand and full supply chains.

In a number of regions, particularly in Asian countries, beef purchases made through 2022 and into 2023 in anticipation of recovery from Covid have not been consumed, the report says.

These are now part of growing stock levels that also include other proteins.

"Softer consumer demand is making it harder to move these volumes through the system," Mr Gidley-Baird said.

After falling for most of the year, Australian cattle prices had levelled out in mid-June, the report said.

Mr Gidley-Baird said the market had seen heavy steer prices rise towards the end of July before dropping again.

Meanwhile national saleyard restocker steers have drifted down slightly in August.

The Eastern Young Cattle Indicator was down 45 per cent year-on-year for the month of August to average AUD 5.40/kg.

Mr Gidely-Baird said through May and June, prices had eased due to producer concerns about the seasonal outlook, which added additional cattle to the market.

"At the same time, producer buying activity dropped as cattle numbers were building, processing capacity remains constrained and consumer markets are still soft," he said.

This saw prices fall to their lowest levels in five years through July. But with some rain through cattle-producing areas in July, stability returned to the market."



Lions cake an Aussie staple



THE Lions Christmas cakes and puddings have been a major fundraiser since the first 1-pound cake was introduced in the 1960s and has become an Australian tradition.

It has been savoured by Australian troops overseas, and for hundreds and thousands of Australians, it's a festive tradition both for eating and gifting.

This isn't just because they are renowned for quality and taste, but because when you buy a Lions cake or pudding you are helping to make a difference.

Purchase proceeds fund medical research into children's cancer, mobility aids for kids with disabilities, blindness prevention, also emergency relief for people in need. Even better, because it's a Lions project we make every cent count.

If you would like to order a cake or pudding, please phone, Jenny Marshall, 0429833728 Or email, jennifer.marshal1@bigpond.com. Christmas Cake 1.5 kg $20 1 kg $16.00 Plum puddings, $16.00 Mini cakes, $2.

It's only 109 days until Christmas and Lion Jenny Marshall knows King Islanders eat Christmas Cake and puds year-round so get in early .

Council seeks deputy to GM

AS King Island continues to grow and thrive, the scope and complexity of the council's responsibilities also expand.

There's an increasing need for a dynamic Deputy General Manager to ensure the council's goals and community initiatives are executed efficiently and effectively.

This role is designed to work closely with the General Manager to provide essential leadership and oversight across all aspects of the council's functions.

The person appointed in this newly created position will have a pivotal role in operational and strategic decisions.

They will directly impact various departments within the council, ranging from Development Services Operations to Human Resource Management, Governance, and Regulatory Compliance.

The Deputy General Manager is to act as General Manager when notified by the General Manager.

"The Deputy General Manager will free up the General Manager to focus on broader, more strategic issues, ensuring that the Council's initiatives align well with its mission and long-term vision," Mayor Marcus Blackie said on King Island Radio.

"This collaborative leadership style will facilitate quicker decision-making, more effective implementation of community projects, and improved responsiveness to the needs and aspirations of the King Island community."

Advertising has commenced with a recruitment company and applications close 5pm on September 17.

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$9.99 ea SAVE $2
Pauls Milky Max Chocolate Dairy Snack 12x100g
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Rocky 'reset' a resounding success

Life in the Liberal dog yet



STANSFIELD says

with Brad Stansfield

THERE'S no denying it, whichever way you look at it, Premier Jeremy Rockliff's winter political "reset" has been a resounding success.

Two months ago, the Rockliff Liberal Government was down and out. Liberal backbenchers John Tucker and Lara Alexander had betrayed the Premier and the party, quitting for the cross-bench and throwing the Rockliff Government into a precarious minority with only 11 of a required 13 votes on the floor of Parliament.

The Government was taking heavy water over the foolish policy to forcibly merge councils (as I wrote about in my June column), with the entire north-east Liberal branch quitting in protest.

Concerns were growing about the apparently ballooning cost of the Marinus Link interconnector, and the Minister for Police, Fire and Emergency Management was stubbornly pushing ahead with his new fire levy (first revealed in this column in January) which would hit rural and regional Tasmanians hard in the hip pocket, right in the middle of a cost of living crisis.

On top of this, the proposed Macquarie Point AFL stadium was draining what was left of the Government's political capital.

Hamstrung by having management of the time-consuming health portfolio, the Premier seemed either unable or unwilling to address these serious problems.

Few expected the Government to make it to the end of the year before calling an election they would inevitably lose.

Fast forward eight weeks and following the Premier's winter "reset", the latest EMRS poll shows a remarkable turn-around in the Government's fortunes, with its primary vote up two points, and the Premier once again ahead of Opposition Leader Rebecca White as preferred premier.

Sure, an election tomorrow would still likely result in a hung parliament, but it's suddenly the Liberals again in the ascendancy.

While political turnarounds of this type aren't uncommon when a government finally sees common sense and undertakes some political barnacle scrapping and policy reversals, this one is nonetheless remarkable.

It shows that despite everything, despite all the travails and mistakes of the past 12 months, there remains a deep pool of goodwill in the Tasmanian community for the Hodgman-Gutwein-Rockliff Liberal project.

It shows that the Liberals are not so far gone that the public has given up on them and stopped listening.

In fact, it even shows that should Premier Rockliff and his team manage to keep the ship of state on the correct course for the next 12 to18 months (a big "if"), there remains the slimmest of chances that they could actually win majority government again.

All of this should be a cause for deep concern for the state Labor Party. They've undeniably been working harder of late spending most weekends knocking on doors, and making a concerted effort to reconnect with business and industry.

On top of this, they have regularly outflanked the Government on both policy and politics, and even took the understandable step of spending more than $200,000 of scarce campaign funds in sending out two statewide mailouts over winter to try and capitalise on the Government's apparent dysfunction.

The net result: they went backwards and on current polling numbers would struggle to form a minority government after the next election even if they did the unthinkable and did another deal with the Greens.

All the while, the David O'Byrne problem continues to plague the party and destablise Ms White's leadership.

It's a truism of life and it is of politics: if you keep on doing the same thing, you will get the same result. Just ask Premier Rockliff who after 12 months of sleepwalk to the edge of the political cliff took some strong decisions and suddenly he's in front again.

It's time for the Labor Party to do likewise; to get their heads out of sand and realise that they need to move on from Ms White as leader if they are to have any chance of winning the next election.



Changes to the Electoral Act - free taxpayer cash to the political parties.

> Sure, an election tomorrow would still likely result in a hung parliament, but it's suddenly the Liberals again in the ascendancy.

MEANWHILE, politicians are taking Tasmanians for a taxpayer-funded ride.

This week, the Legislative Council will consider changes to Tasmania's Electoral Act which will fundamentally change the way our elections operate.

Going by the public utterances of politicians and most of the media, you'd be forgiven for thinking that this Bill is about one thing and one thing only: setting an appropriate number for the public disclosure of political donations – currently proposed at $5,000 but likely to be lowered to just $1,000 by the Legislative Council.

An act of political self-immolation by the Rockliff Government and Attorney-General Elise Archer to be sure, but not half a bad as the political heist the Bill sets out to achieve from the Tasmanian taxpayer.

Under the provisions of this Bill, political candidates will be paid $6 for every primary vote they receive at the election – with a minimum threshold of four per cent of the votes in each seat required to access the taxpayer funded moola.

Last state election, there were around 340,000 votes cast. A bit of basic maths tells me that means that should this Bill pass the Parliament, around $2 million of taxpayer funds will be doled out to the three major political parties for the next election.

On top of that, the major parties are also entitled to over $130,000 per year in what's called "administrative funding".

And it's not just limited to the parties – independent candidates are also entitled to six bucks per vote if they can beat the four per cent threshold, and if elected nearly $40,000 per year in taxpayer-funded administrative funding.

It takes some kind of chutzpah from the political class to think that they can get away with this heist in the middle of a cost of living crisis. But hey, what's $2 million when Tasmanians can't pay their power bills?

Brad Stansfield is a political and campaign strategist and a partner at Font PR and Font Publishing, owner of the King Island Courier.

KING ISLAND COUNCIL

EMPLOYMENT OPPORTUNITY: Deputy General Manager

As King Island continues to grow and thrive, the scope and complexity of the Council's responsibilities also expand. There's an increasing need for a dynamic Deputy General Manager to ensure the Council's goals and community initiatives are executed efficiently and effectively. This role is designed to work closely with the General Manager to provide essential leadership and oversight across all aspects of the Council's functions. This is a unique opportunity for a highly skilled and committed individual to step into a key leadership role within the King Island Council and contribute to the island's vibrant community.

How to Apply:
Please direct any enquiries to Belinda, Managing Director of The BelRose Group on **0409 002 654** or **bel@belrosegroup.com.au**

To apply, submit your application by 5:00 pm on 17th September 2023.

Kate Mauric
GENERAL MANAGER

KING ISLAND COUNCIL

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Praise for Anchor Garden

TWELVE months ago, King Island Landcare supported by the King Island Council cut back an overgrown tree and bushes, cleared grass and weeds and created a new shipwreck memorial "anchor garden" on the corner of Huxley and Main streets.

Eve Woolmore and Nathalie Amaral from Landcare created a walking path and received very positive feedback from the community for their renovation work.

A year later with continued cleanup, planting and seaweed mulching, the community is once again full of praise for the Landcare team.

In 1985, the King Island Jaycees, (ceased) proposed that a competition be held to find an appropriate design to incorporate one of the two shipwrecks anchors they had stored in seawater and the anchor's preservative to be done by the Queen Victoria Museum.

Gary Strickland said that the anchor used in the memorial is a stabiliser anchor from the Cataraqui and had been retrieved from the shipwreck site by Jaycee members with the guidance of Len Sullivan.

"It was treated and preserved by me, under the advice given by the Queen Vic Museum," Mr Strickland said,

At that time the Jaycees also proposed that a bronze plate with the names and dates of all known shipwrecks be mounted on the monument and the original site proposed for the memorial was on the grassed area outside the library, which was then Jaycee Park and now known as Memorial Park.



The Anchor Garden at the shipwreck memorial displaying a stabiliser anchor from the Cataraqui ship in Currie and the finished garden and paths.

The winner of the design competition was Anne Shimmins, an artist and author who lived on the island and wrote Eden Observed.

Past president of the King Island Historical Society, Sue Fisher who now lives in Tasmania, reminded the community on social media last year that there was a time capsule buried when the anchor was placed in its current location.

"From this basic structure, to this today," she said.

"So proud of this unique and striking garden."

"Well done to the Landcare crew," Eve Woolmore said.

Waste recovery spending starts

THE King Island Council is updating the collection and shipping of recylcable materials.

Funding provided under the Government's Recycling Modernisation Fund is being spent on plant and equipment to facilitate collection and shipping.

This includes a mini-Materials Recovery Facility, a material collection vehicle, roadside bins, and shipping containers.

In June, the council approved the engagement of Waste Initiatives to provide plant and equipment for installation at Charles Street creating a Materials Recovery Facility.

The design of the MRF has been based on the recommendations of the 2019-2029 Waste Management Strategy, building on broad community research.

An on-site design meeting was held in early July and subsequent review meetings were held online.

The outcomes of these meetings is being reviewed by council staff with confirmation of the final design anticipated to be given to Waste Initiatives by mid-September 2023.

Burcher Municipal was advised in July of the council's decision approving their provision of a vehicle for the roadside collection of co-mingled recyclables from residences across the island.

The detail of this vehicle will be finalised in the coming weeks as decisions are made on the methodology by which recyclables will be shipped off the island.

While the council was unanimous in its decision to apply to the Recycling Modernisation Fund for plant and equipment, the particulars of how recyclables will be collected and shipped for processing are yet to be determined.

Three consultants have been invited to quote on providing an assessment to the council of the comparative costs and benefits of a range of options.

This includes how far recyclables can be co-mingled; how often they will be collected; and the implications each option will have on the life of Parenna landfill and the operating costs of council. It is anticipated that this information will be provided to the Councillor Waste Working Group for consideration and recommendation to Council in October, following a comparison of quotes and selection of the successful consultant by early September.

Once a determination has been made on the operational feasibility of each option and the associated costs, it is the project team's intent that the community be invited to comment on their preferred option.

This feedback will then be presented to the council, together with the project team's assessment, for a final decision to be made.

Council received its first payment of $144,000 under the Recycling Modernisation Fund grant in July 2023.

The next payment, $365,000, will be made to council upon NRE's receipt of the first progress report, confirming that all plant and equipment funded has been ordered.

Council was approached in late July by the Tasmanian Department of Natural Resources & Environment with an offer to extend the completion date of the RMF project.

It appears this was prompted by other recipients of funding across the country having experienced delays in their projects.

While King Island Council is still on track to complete the project by the current deadline of June 30, 2024, it was decided that accepting the offer of an extension would provide an additional level of comfort and the ability to absorb any delays that may emerge as the project progresses and more time to develop the operational model.

A revised deadline of January 31, 2025 was discussed. Confirmation of this variation was reported at the last council meeting and still pending.

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Growing



Super-healthy looking hothouse lettuce, tomatoes and capsicum grown at The Garden.



ABOVE: Sophie Oster crunches on a carrot straight from soil at The Garden.
RIGHT: Biodynamic farmer Paul Daniel explains to visitors that if you feed the soil you feed the plants.

FOR Paul and Cynthia Daniel biodynamic farming is a passion.

Phoenix House, the Men's Shed, residents and visitors went on tour last week visiting The Garden in Pegarah.

They learnt about soil health, biological pest control and the principles of biodynamic farming on a large scale, and the principles and techniques that can be equally applied in a backyard vegie patch.

Biodynamics is a holistic, ecological, and ethical approach to farming, gardening, food, and nutrition.

Biodynamics is rooted in the work of philosopher and scientist Rudolf Steiner, whose 1924 lectures to farmers opened a new way to integrate scientific understanding with a recognition of the spirit in nature.

It goes beyond traditional organic farming practices.

Biodynamics considers that a farm or garden is an integrated whole, living, interdependent organism.

Biodynamic practices continuously renew and replenish soil micro-organisms creating a resilient and healthy ecosystem enabling nutrient-rich produce on farms and gardens that can be applied anywhere food is grown, with thoughtful adaptation to scale, landscape, climate, and culture.

There is a focus on self-sufficiency and respect for the environment.

Planting, pruning and harvesting are often timed to align with lunar cycles, and for some, astrological cycles, which proponents believe can enhance plant vitality and productivity.

Soil is considered the foundation of biodynamic gardening.

Emphasis is placed on building and maintaining

ConocoPhillips

Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
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T: 07 3182 7122

conocophillips.com.au

SCAN HERE

CMM29884CP_KING

from the ground up





LEFT: There was a big turnout for the Phoenix House and visitors' growing tour and workshop at The Garden with biodynamic grower Paul Daniel.

healthy soil through the use of compost, cover cropping, and crop rotation.

Biodynamic practitioners create special compost preparations, known as "biodynamic compost," that involve specific herbs and minerals to enrich the soil.

The compost preparations are used to enhance soil fertility and stimulate microbial activity.

Promoting biodiversity through crop variety and incorporating companion planting techniques can help reduce the risk of pests and diseases, improve overall plant health and increase natural disease resistance.

Biodynamic gardens often integrate animals like chickens, cows, and bees.

These animals contribute to nutrient recycling, pest control, and pollination, enhancing the overall sustainability of the garden.

The aim is to grow which minimises external inputs.

Paul's market garden and hot houses shifted after many years of operating in Currie to bigger land in Pegarah.

The vegetables – lettuce, tomatoes, capsicums, carrots, potatoes, onions, garlic and other in-season vegetables are found in the Currie supermarkets, at POKI markets and a selection at the CWA in Edward Street on a Friday morning.

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KING ISLAND COUNCIL
POSITION VACANT:
Airport Reporting Officer

King Island Council is seeking a suitably qualified and experienced Airport Reporting Officer (ARO) to join the team at the King Island Airport. The King Island Airport is serviced by three regular commercial airlines along with various charter airlines and is the bustling transit hub for local travellers, commuters and the Islands many tourists. Every journey to King Island starts in the air!

The Position:
This is a permanent full-time position, working a rostered 38 hours per week, and will include hours outside of normal business hours. King Island Council offers above Award remuneration ($58,350.49 per annum + super) and employee benefits, and the applicable allowances and penalty rates will apply when rostered on weekends and public holidays.

How to Apply:
For more information about the position, please contact Council's Customer Service Team on 03 6462 9000. Alternatively, an Information Package, including the position description and selection criteria can be downloaded from King Island Council's website **https://kingisland.tas.gov.au/work/employment-opportunities** which will detail how to apply and what to include with your application. For your application to be considered, you must answer the selection criteria listed in the Information Package.

King Island Council is proud to be a part of the vibrant island community we serve. We are a progressive, proactive and equal opportunity employer.

Kate Mauric
General Manager

KING ISLAND COUNCIL

Date set for referendum

Battle lines over the Voice

CLAIRE CHANDLER
Tasmanian Liberal Senator

NO



LATER this year, Australians will be asked to vote in a referendum about establishing an Aboriginal and Torres Strait Islander Voice to Parliament.

The Referendum will take place in mere months – yet Australians are none the wiser as to the exact function and impact of the Voice.

How can Australians consider voting for a proposal that they still know relatively little about?

In our federal parliament, the Opposition has consistently asked for the answers to very practical questions about how the Voice will operate.

But instead, the Minister for Indigenous Affairs and the Government have refused to provide answers and have instead made disparaging comments to those asking these questions.

Labor's attempts to shut down anyone seeking further information on the Voice to Parliament tells you everything you need to know about their proposal.

The Government is asking Australians to consider making a significant change to our constitution – our most important legal document.

Suffice to say, changing our constitution is no trivial matter.

Labor has been unable to provide assurances on the legal ramifications of the Voice or guarantee that their proposed change to our constitution wouldn't create loopholes for exploitative legal challenges from activists.

To make matters worse, proponents have openly said that the Voice will 'punish' any government or political party that does not support one of the demands of the Voice.

Inner-city activists have already made known their intentions to hijack the Voice to push for reparations, compensation, and moving the date of Australia Day. It's hard to know what other radical changes they will agitate for in the absence of any detail of how the Voice will operate.

> It's hard to know what other radical changes they will agitate for in the absence of any detail

We've also heard the Prime Minister and his Government state that voting 'Yes' in the Referendum would result in better outcomes for Indigenous Australians and help close the gap.

You'd be hard pressed to find anyone who doesn't want to provide meaningful and effective support to Indigenous communities to deliver better outcomes and facilitate lasting change. An Indigenous Voice to Parliament wouldn't achieve this.

It would only add yet another layer of bureaucracy and more Canberra-based public servants.

And last, but not least, permanently enshrining a Voice in the Constitution for one group of Australians means permanently dividing our country. It's as simple as that.

The government insists that this referendum to change the Constitution is just a modest request – but how can we be certain that that's the case? How can we know this will only be a modest change if the Government isn't willing to provide us with the details on what the Voice is or how it will work?

There are simply too many unknowns, too few details, and too much at risk.

If you don't know, vote no.

ANNE URQUHART
Tasmanian Labor Senator

YES



WHAT kind of Australia do you want to see?

While you contemplate your answer, let me give you mine.

I believe in an Australia that provides opportunity, equality, and prosperity for all its people. A country that is proud of its history and reconciled with its past. A nation that embraces its rich diversity and is at one with its First Peoples, walking together, and celebrating our shared stories.

This is a vision of Australia built on hope, goodwill, hard work, and honesty.

These characteristics are at the heart of the plan to establish an Aboriginal and Torres Strait Islander Voice to Parliament.

On October 14, Australians will be asked to vote in a referendum that will decide if the "Voice" becomes a reality or not. You get to make history. The decision you make will leave a lasting legacy for our nation.

So, beyond the internet trolls, the hysteria and fear-mongering of some politicians, and the doomsday misinformation merchants on talk radio and TV, let's cut to the chase about what the Voice is.

It will provide independent advice to the Parliament and government on pertinent issues impacting First Nations communities.

It will be chosen by Aboriginal and Torres Strait Islander Peoples based on the wishes of local communities.

It will be representative, community-led, accountable, and transparent.

It will work alongside existing organisations and structures.

That's it. Nothing more, nothing less.

Despite the incessant fear campaign being run by opponents of the Voice, there is one question they can't answer.

If we are not prepared to meet the humble aspirations of the over 200 Aboriginal and Torres Strait Islanders leaders who came together to write the Uluru Statement from the Heart which asked for a Voice to Parliament, then what?

> It will provide independent advice to the Parliament and government on pertinent issues

If we are to turn our back on this step towards addressing the issues that still trouble our First Peoples, what is their plan?

The answer is that the "No" campaign has no plan. It is a dead end.

The Voice is about recognition, listening, and better outcomes for Aboriginal and Torres Strait Islanders, who still live with an appalling gap in health and education outcomes, and life expectancy.

We know in our daily lives that when we truly listen to others, whether at work or at home, with our friends or even a stranger who just needs to be heard, we are all better off.

Listening makes us better people. It will make Australia an even better place.

The Voice will be a simple but powerful change. In 1967, Aboriginal Australians were finally counted in the census. By voting "Yes" on October 14th, you can ensure they are now also heard.

This is your history. Now go and make it.

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Prep students joined classes across the King Island District High School school and around Australia for the Daniel Morcombe Foundation "Biggest Child Safety Lesson".

Hands up for child safety

NATIONAL Child Protection Week from September 3 to 9 aims to engage and educate all Australians to understand they have a part to play in keeping our children and young people safe and to understand the complexity of child abuse and neglect and work together to prevent it.

King Island District High students took part in the Daniel Morcombe Foundation "Biggest Child Safety Lesson".

Produced annually, the free award-winning Australia's Biggest Child Safety Lesson is live streamed across Australia and this year's safety message, is aimed at junior primary and early years, four to seven years of age, and upper primary aged children, eight to 12 years was "Consent".

Communication is key to giving and getting consent. Students learnt how to recognise, react and report and practice strategies they can use when they need to give or refuse consent.

The foundation was established by Daniel Morcombe's parents to make Australia a safer place for children.

Their son was abducted and murdered in December 2003 while waiting to catch a bus on the Sunshine Coast, Queensland.

The aims of the foundation are to educate children and young people about how to stay safe in physical and online environments and to support young victims of crime.

Labor health pledge

KING Island District Hospital is listed to benefit the Tasmanian Labor Party's promised investment in a statewide regional health policy. – their Right Priorities Plan.

The plan highlights the need for more resources for the King Island District Hospital, with the Labor Party pledging to employ more staff to increase service.

Among those staff increases is the promise to employ five more nurse practitioners, as well as an additional rural generalist for King Island.

Nurse practitioners and rural generalists provide a dynamic range of skills and services, including experience, expertise and authority to diagnose and treat people of all ages with a variety of acute or chronic health conditions.

Labor Leader Rebecca White announced the health plan to deal with the chronic shortages Tasmanians have been experiencing in their communities.

"We want Tasmanians to be able to access healthcare close to where they live," Ms White said.

"As a mum and someone who grew up on a farm, I understand that Tasmanians want to be able to receive care close to home, whether it be for a sick child in the middle of the night or rehabilitation from illness or injury."

"Our dedicated health workers are the backbone of the health system.

"Rural generalists will be able to work as part of a multidisciplinary team of nurse practitioners, who can provide diverse and valuable services in regional areas in particular."

Labor Member for Braddon and health spokesperson Anita Dow said a Labor Government would urgently get to work on repairing our broken health system, helping to rebuild healthcare in rural and regional Tasmania.

"Under Labor's plan, $14.9 million per year will be invested per year to employ 90 nurse practitioners, 18 rural generalists, 36 nurses and five clinical nurse educators, guaranteeing that Tasmanians can receive care closer to where they live.

"These nurses will be part a multidisciplinary team, working collaboratively with General Practice across our regional and rural communities."

Gym at core of healthy future

THE King Island Council is following its vision for a brighter, healthier future.

The 2019-20 King Island Recreation Strategy unveiled its ambitious plan for a gym and wellbeing centre on the island.

Residents, health and fitness practitioners, sporting clubs and visitors reflected the island's increased focus on health and the strategy laid out an essential need: a public gym and improvements to the existing outdoor tennis and netball courts at the Currie Oval.

Funding of $1 million was granted by the Commonwealth Government to bring this vision to life and enhance the well-being of the island's community and the funding agreement was signed in February 2022.

The council decided to act, and they purchased a piece of land in Netherby Rd, a prime location for expanding the Currie Oval amenities and the island's recreational facilities.

This site was destined to become the new home for a community gym and facilities supporting the island's commitment to a healthier lifestyle.

The council's Development Services Coordinator with a dedicated project team rolled up their sleeves.

The Development Application (DA) had multiple issues to consider. One of the major considerations was whether to request a boundary adjustment or a title consolidation as part of the DA.

Both approaches had their merits, but the common goal was clear: position the gym building closer to the existing driveway into the oval.

This would allow for potential future expansions without encroaching on the neighbouring properties to the north.

A crucial factor in choosing between adjustment and consolidation was access to water. Generally, TasWater connections are limited to one per title.

Given that the existing connection was already maxed out, the gym needed a separate water connection to make the showers and plumbing fully functional without disrupting other oval facilities.

TasWater was approached to explore the possibility of two connections on one title, considering the unique circumstances. Any title changes remain with the council.

HydroTas weighed in on the project, delivering good news. The existing network on Netherby Road could comfortably supply the gym's needs without the need for costly infrastructure upgrades.

The project team is a collaborative effort. Dock4 Architects and @leisure Planners, the latter renowned for their experience in rural and remote communities, joined forces with the council's Parks and Recreation Working Group.

The document underwent scrutiny by the project's Quantity Surveyor and awaits the final nod from the Project Control Group.

Builders, both traditional and prefab, can submit tenders.

The refurbishment of the tennis and netball courts at the Currie Oval are also well under way. A specification is being crafted, and soon to be released for Expression of Interest (EOI) through an LGAT Panel of suppliers.

The PCG is to decide the operational model for the gym. Options span from leasing the facility to a third-party business to direct operation by the Council, funded through a new position. Each option comes with its unique set of challenges and opportunities. The PCG is considering the implications of each choice, which includes exploring potential funding sources for a Council-led model.

KING ISLAND COUNCIL
REQUEST FOR TENDER:
Currie Lighthouse - External Painting

King Island Council invites tenders for the repainting of the exterior of the Currie Lighthouse.

Tender documents:
Available via TenderLink
www.tenderlink.com/kingisland

Closing:
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Kate Mauric
General Manager

KING ISLAND COUNCIL

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RSVP to Chloe Watson (0429621592) before 8th Sept

All welcome.

It's written in the stars

with SABINE GABAUER

WE begin September on the heels of an intense winter full of lessons around relationships, our value system, our likes and dislikes and internal challenges.

Luckily this ninth month of 2023 offers us a gentle reprieve.

We are getting ready to find new clarity and security as the planets cradle us in a loving and firm embrace.

This week, Venus, the planet of all things beautiful, of love and finances is emerging from her retrograde motion straight into an indulgent mood.

This week we are cleaning up what is overwhelming, too much or excessive.

King Island Buy, Sell and Swap might be the place to offer your items.

We are clearer and more discerning and slowly but surely leaving our caves of retreat as we are returning to reconnect with ourselves and others.

Hopefully, with greater self-awareness after a prolonged time of healing wounds from the past. And, be aware of over-indulgence.



This is a week of energetic renewal with a greater focus on your health and well-being. New solutions are on the horizon as you are making decisions on your work-life balance. Supportive energies are flowing in helping you to re-organise your finances. Happy days Aries!



This is an expansive week for you Taurus where ideas and communication are flowing as smoothly as the Sea Elephant River. Your creative juices are bubbling up to the surface. Great time for practical, hands-on "Shenanigans". Be mindful not to overindulge.



It's all about your home this week for you Twins. There might be some good news around property sales and purchases, or you might just come up with grand ideas around renovations and re-decorations. In case you are overwhelmed with too many innovative ideas, just take a breather and watch the sunset at Devil's Gap.



We know you love to retreat into your shell little crab, but this week you are more outgoing as you share practical, effective and beneficial ideas with your community. Nevertheless, home is where your heart and hearth are residing as you are balancing inner and outer experiences this week. Enjoy!



This week is a great time to re-organise your finances and make adjustments in your career. What do you desire and what makes you feel special and valued? You are showered with warmth and love and might be on the list for a pay rise. Don't spend it all at once in Currie's CBD.



Mental, physical and spiritual aspects unite this week, and you are much more grounded in word and deed. You are the go-to person for practical solutions and your broad visions are inspiring for those around you. Keep up the good work Virgo!



Are you procrastinating again or are just feeling indecisive using the scales of your judgement and weighing up all the alternatives before taking action? You might need to take a bit of time out and trust your inner master judge. What about a visit to the Cultural Centre to get your art fix?



You are future-oriented and more engaged within your social contacts and all things relational. This week you are leaving your cave of retreat and returning to connection and creation. Your relationships are inspiring and more harmonious. Just ease into every day's mysteries. You know how to do it!



Your adventuresome spirit is directed into your work life this week. Your vast visions and grand ideas will be an inspiration for others as well. A great week to implement new lifestyle choices and share your grounded ideas or just simply "zen out" in the kitchen creating a beautiful meal.



This week there is an emphasis on your greater vista mountain goat! If things have been unpredictable, shaky and your schedule subject to change, this week you are invited to be more playful, to trust your instincts and keep on climbing that mountain. Why not check out Seal Rocks this week for a little hop around?



Relationships are looking up as you are more open to intimate connections. This new found intimacy could be just for yourself and your own creative genius to rebirth that spark of revolutionary innovation. Get out your paints, brushes and canvas and splash those colours in your unique style.



Don't hold back any longer swimming in known and comfortable waters… Dare to be you and more outgoing. What has been unclear or has left you feeling all at sea is clearing up this week. Now is the time to drop your anchor and start formulating a plan.

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The King Island Club

ANNUAL GENERAL MEETING

Friday
13 October 2023
7.00 pm

Agenda:

Apologies
Minutes of Previous Meeting
President's Report
Manager's Report
Auditor's Report
Election of Auditor
Recommendations to incoming committee
Declaration of ballot for election of office bearers

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King Island Courier
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Sport

Spring weather beefs up field



Winner John Mauric hitting off the 16th tee.

BUGGY

THE JBS King Island Beef Day monthly mug stroke event was a closely contested event.

On the glorious first days of spring, sun shining and no breeze, 26 players hit the links course for a great day out.

The winner was John Mauric with a solid 85 off the stick and 70 nett. On shot back on 71 nett were three players with Chris Richards grabbing runner-up from Geoff Watts and Jim McFadzean.

Nearest the Pin 3/12 John Mauric

18th Roger Clemons

Money Hole 2/11 S. Sims

Other good scores on 72 nett Mick Lincoln and Jenny Attrill.

AROUND THE TRAPS

Pud Watts had put together a very good round until the 17th hole. His shot to the green landed in the lone pine tree and became lodged in the bottom branches.

The match-play event is proving to be a very well contested affair, moving to the semi-final stage. Tim Barnes will play Adam Hely and John Mauric will play Brendan Strickland.

Earlier in the week Tim Barnes and Roger Clemons had an extraordinary match with Tim prevailing on the 19th hole.

Tim raced to 4 up on the first nine sinking three putts on the 2nd/3rd/4th holes, all from the edge of the green. On the back nine, Tim 4 up with 9 to go. Roger responded to square the match by the 16th hole. Tim won the 17th and in an all-or-nothing, Roger won the 18th with a magnificent hit onto the middle of the green.

Tim wins the 19th and the match.

On Saturday three players managed 11 shots on one hole. - Alan Muir, Lance Anderson and Sam Woolley.

NEXT WEEK

The Cape Wickham single stableford.

ON THE COURT
Finals



Netherby Under 16 2023 Premiers. Back: Tegan Hennessy (coach), Sarah Lancaster, Jana Burgin (coach) Sarah McRae, Chelsea Harding, Kaylie Smith, Nicole Vasta (coach) Front: Maya Flood, Lilly Sims, Emily Fisher.

LOZ HARVEY

OPEN WOMEN'S - SALTY's v. NORTH

Friday night's Open Women's grand final was highly anticipated. The top two teams Saltys and North battled it out in a physical, high-possession match-up with Saltys taking out the 2023 King Island Netball Association 2023 Premiership.

As expected, both teams went goal for goal in the first half of the first quarter - with Saltys managing to break a few North centres and take a handy lead.

This lead soon dissipated when an injury to Paige Williams unsettled the Saltys and North broke back to even the score at halftime.

Saltys' lead going into the last quarter proved too much for North to claw back.

Abbey Jones was Best in Final.

UNDER 12 - EMERALDS v. RUBIES

Our youngest netballers did not disappoint in their Grand Final. Top of the ladder Emeralds versus the fighting underdog Rubies. The goal for goal first quarter proved just how far Rubies had come with their skill and game development - a credit to their coaches.

Possession was relatively even throughout the somewhat scrappy game; however, Emeralds were able to convert with Harriet Clemons scoring some sensational long-bombs. The ability of Emeralds to be able to link some beautiful leads and passes down the court meant they were able to run away with a handy lead securing them the 2023 Premiership. Heidi Smith was named Best in Final.

UNDER 16 - NEVA v. NETHERBY

One of the best U16 Grand Finals our Netball Association has seen. Neva had been dominant all season, gelling right off the bat. Whereas, Netherby had slowly built from strength to strength, peaking at the right time.

It was a fast start to this final, with both shooting ends on song. It was clear from the outset that the game would be won or lost in the mid-court, with strong leads, clean passing and pressure being the key.

The lead changed hands throughout every quarter, with the crowd on the edge of their seats. No team was able to break away with a lead larger than four goals. The final quarter even had our visiting umpires preparing for overtime. With the ball going back and forth with no score for at least eight minutes in the final quarter, it came down to the last 20 seconds for Netherby to take the lead. A strong intercept by Chelsea Harding in GK, just seconds before the final siren saw Netherby claim the 2023 Premiership. Jana Burgin was named Best in Final.

2023 JUNIOR GRAND FINAL, September 3.

Under 12s
Emeralds (20) def Rubies (6)
Best Players
Emeralds - Heidi Smith & Hattie Clemons
Rubies - Dakota Davis & Lexie Reed
Goal Shooters
Emeralds - Mia Taylor 1 - Heidi Smith 5 - Indi Hendricks 2 - Hattie Clemons 12
Rubies - Jade Sims 2 - Beau Hamer 1 - Dakota Davis 3
Under 16s
Netherby (39) def Neva (38)
Best Players
Netherby - Jana Burgin & Maya Flood
Neva - Karolina Jacobson & Stella Smith
Goal Shooters
Netherby - Sarah Lancaster 29 - Lilly Sims 10
Neva - Sophia Bell 12 - Karolina Jacobson 26

2023 SENIOR GRAND FINAL, September 2.

Salty's (41) def North (34)
Best Players
Salty's - Abbey Jones & Gemma Jones
North - Elise Nichols & Chloe Watson
Goal Shooters
North - Paige Williams 4 - Jenna Cook 17 - Sarah Lancaster 13
Salty's - Hannah Lewis 6 - Gemma Jones 35

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Club members celebrate





ABOVE: Junior Premiers at the Currie FC Presentation Night in the King Island Club

LEFT: Best in finals, runner up Best and Fairest Matthew Button receiving coaches award with Sam Reeman, Stacy Martin.





ABOVE: Jak Youd with Doug Bell who presented him with the Bob Bell Memorial for Best and Fairest

LEFT: Levi Martin and Matthew Button holding the Juniors Premiership Cup.

LAST Saturday night the Currie Football and Netball Club kicked up their heels at their club home at the King Island Club.

Surrounded by the honour board heroes, the wins, trophies and awards of the past, the Robins footballers, netballers and club supporters celebrated the CFC 2023 season.

The night highlighted the Juniors' premiership and included slideshow reflections on the year that was and recognised this year's on-ground, on-court and in-club performances.

The night's highlights were the club's recognition and presentations to the 2023 CFC award winners.

"Around 100 members attended a celebration of all three teams having another successful and fun year, both on and off the field," CFC president Thomas Graham said.

"We celebrated the combined Currie and North juniors who won the grand final with 20 seconds to go.

"The Currie seniors made the grand final and the netball girls had a good fun year.

"Moving forward Currie Football and Netball Club is striving to build a fun family-friendly club where all members are included and supported.

"In the 2024 season, Currie will be striving to grow our participation in all three teams, to prosper and to have a season that is enjoyed by all.

For those unable to attend the dinner and presentations, the slide shows can be viewed on the CFC Facebook page and on YouTube, search King Island TV.

CURRIE FC SENIOR AWARD WINNERS 2023

Best & fairest - Jak Youd
RU best & fairest - Josh Bellchambers
Best in finals - Jak Youd
Leading goal kicker - Tom Graham
Best Backman - Jak Youd
Most Improved - Michael Laskey
Best utility - Jack Worrall
Coaches Award - Dylan Beecroft
Best first-year player - Ben Doherty
Best Clubman - Stacy Martin

JUNIOR AWARD WINNERS 2023

Best & fairest - Harrison Lincoln
RU best & fairest - Matthew Button
Best in finals - Matthew Button
Leading goal kicker - Harrison Lincoln
Best Backman - Tom Button
Best Utility - Toby Hyde
Most Improved - Levi Martin
Best first-year - Seth Bowling
Most courageous - Leo Reeman
Coaches Award - Matthew Button

ROBINS NETBALL AWARD WINNERS 2023

Best & fairest - Abby Brooks
RU best & fairest - Gina Hendricks
Best in Finals - Molly Potter
Most consistent - Karolina Jacobson
Best first-year - Jana Burgin
Players' player - Nicole Vasta
Coaches Award - Renee Vellekoop



King Island Courier
A Beacon for the Community

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AS the King Island Boat Club prepares for the coming season, two new Life Members have been inducted.

STORY: PAGE 11

Fred Perry, left, and Gary Johnson receive Life Membership at the King Island Boat Club watched by Fred's wife Shona.

Festival to maintain 'family friendly' feel

FOKI SECURES SITE

NEXT year's Festival of King Island will have a professional security presence.

Organisers say festival goers may notice changes to security arrangements.

"Changing times means changing needs," FOKI president Kim George said.

"The organisers have engaged security due to increased concerns around safety and rules at the family-friendly festival," he said.

"The sense of community and the family-friendly nature of the festival is something that all visiting performers comment on and is a FOKI hallmark and differentiates it from other music festivals around Australia.

"The FOKI committee in debrief immediately after last year's festival decided that there were some areas that needed to be controlled and this would require professional security.

"We considered the main risks for accidents, crowd control and similar.

"We looked at things like people going in/out through the gates, or avoiding the gates; people turning up late often after another function and the alcohol mix; toilet accessibility and locations," he said.

"Last year the stacked hay bales protected the site from wind, and keeping people off the stacked hay bales is needed to avoid accidents and incidents.

"There are also areas around potential issues for children.

"Young children standing in front of speakers to feel the vibe maybe different, but one spike and there could be major consequences.

Continued page 2

SLIPWAY RE-OPENS – Page 4

Change of direction for gallery

THE King Island Arts and Cultural Centre had an active winter planning and organising for a busy last quarter and coming 2024 – and – after 20 years – the name is changing.

After almost 20 years, the Arts and Cultural Centre or the more recognised "Cultural Centre" is changing its name to the King Island Gallery.

"Since the renovation of the space a few years back, the number of cultural and workshop activities has diminished and the space has focussed more on the display of items made by local creatives," the council's Community Development Officer Mark Wischnat said.

"The gallery will now become a dedicated space for viewing, learning and sales," he said.

"Fortunately, we have two studio spaces, the wharf studio, and the previous porcelain painters' studio in Meech Street, that are now available for workshops and activities.

"The council will hold a launch event, with a local exhibition to celebrate the new direction and name change in mid-November."

Other developments include a refocus on local and visiting exhibitions.

"We learnt from the nature photography exhibition in April that locals want to see new work at the centre and that we need a process to respond to exhibition enquiries from off-island artists and to develop a calendar of exhibitions and activities," he said.

"To present a broader range of exhibitions, we are introducing a simple call-out process that includes a small group that will help plan, make decisions, and curate an exhibition calendar. Eventually, we will move to an annual call-out similar to the Artist Residency program which has worked smoothly for the last few years and is developing a strong reputation.

"We would ideally like to present four to five exhibitions throughout the year, with half being local creatives or community art activities," Mark said.

Other works in the pipeline include the development of a standalone website for the gallery, added support for volunteers, two new exhibitions and the two studio spaces that will be available for the community to access.

The extremely popular Artist Residency program is currently open for 2024 residency applications.

"The program is receiving strong enquiries from across Australia ahead of the October 1 closing date.

"We will announce the successful 2024 artists at the mid-November launch."

Island creators are encouraged to hold an exhibition of their work in 2024. The King Island Council website kingisland.tas.gov.au has more information and a simple form to complete. The closing date for the exhibition Expression of Interest is October 9.

"If you are interested in an exhibition, want to display new work in the gallery or are keen to spend a couple of hours each week or fortnight surrounded by art, we are always looking for volunteers and would love to have a chat about what would work for you." Contact Community Development Officer Mark Wischnat on 64629000.



Open studio at 38 Lighthouse Street, hosted by recent Artist in Residence, Julie Ryder, professional textile designer and screenprinter who worked with natural materials, substances, and dyes to create a range of artworks during her time on King Island.

King Island Courier
A Beacon for the Community

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King Island Courier

FOKI to remain family friendly

From page 1

"Our liquor licensing has strict controls, all staff have the required responsible liquor service certification and FOKI has always taken the responsibility and obligations very seriously.

"In past festivals, committee members, who are volunteers, spend a lot of time overseeing the site and try to make sure there are no behaviours that impact individuals or others or in some cases have had to intervene and stop risky behaviour.

"It is very hard to manage risk with a small number who are responsible for various other festival stations. So, we decided to engage professional security. The time has come that we need to evolve.

"This decision is expensive and includes wages, airfares, accommodation and car hire, but it is necessary to maintain a family-friendly and safe festival," Mr George said.

Meanwhile, the committee is in full swing for what has become the biggest event on the island's cultural calendar on February 2 and 3 next year.

Bands are being announced, flights, accommodation, hire cars booked, new volunteers being briefed and discussions around food venders, merchandise and side activities are happening.



All roads lead to FOKI on King Island on February 2 and 3 next year.



Long-time couple farewelled



"Cheers and it's not really goodbye but farewell," says Anna De La Rue and husband Adrian Gobel, as they start a new adventure on mainland Tasmania.

THE lyrics say it's time to say goodbye and Anna De La Rue and husband Adrian Gobel left King Island this week. Anna, after more than 20 years and Adrian after 60 years.

The pair have joined an increasing number of long-term residents, and in some cases, lifetime King Islanders who as they age, leave to be closer to family, medical care, and hope for a reduction in the cost of living.

"I have lived on King Island for over 20 years and for Adrian it is more than 60 years," Anna said.

Adrian came to the island with Dutch family connections to take up dairy farming. This migrated to beef farming on their South Road property.

"The farm has sold and Adrian's daughters both now live in Tasmania," Anna said.

"My daughter and grandson live in the US.

"Now the family is close by, and we increasingly have medical issues, I can comfortably know that if I visit my daughter and grandson, Adrian has his daughters only a few minutes away in Launceston."

Over the years the couple have been involved in many community groups and businesses. Adrian enjoys sailing and his sloop, moored in Grassy will make the journey to Tasmania.

For many years Adrian ran a tour coach and tourism business before selling and focussing on the farm.

Anna is a qualified psychologist and in private practice as well as working for many years at the King Island District Hospital as a rural resource worker until the position was defunded.

As an authorised marriage celebrant, she has officiated many island couples' marriages and as a funeral celebrant helped families and friends say goodbye to loved ones.

Over the years Anna has served the island's Catholic community acting as both a liaison and service leader in the weeks when the priest is not visiting the island and with Adrian was part of the church's Holy Donut team making and selling donuts at events.

"I also instructed Tai Chi on a Tuesday at Phoenix House and a member of the island's Red Cross, a member of Lions and also the cross churches Christian Women's Group," Anna said.

"I was a volunteer ambulance officer for many years and while the Red Cross closed on King Island, I'm still an active member of the Red Cross Emergency Response team.

"Over the years I have had the phone duties, but I have also been deployed off the island to disasters like floods and bushfires," she added.

"I will miss King Island and most of all the community. Yes, it's the community I will miss and the bonds we all have."

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Fishers welcome slipway re-opening

THE Currie Slipway is now operational, and it is welcome news for fishers who can now undertake boat repairs on the island.

"On behalf of King Island, I acknowledge the refurbishment work and investment by TasPorts to get our Currie Harbour slipway operational again in a relatively short timeframe over winter," Mayor Marcus Blackie said.

"It is great news for our fishing fleet and maritime safety as a whole that this facility is now up and running again," he said.

"Innovative design work and engineering were required to replace the corroded sections and ensure the slipway meets all current compliance requirements.

"Hopefully, it will now receive more use than in the past to service our fishing fleet in situ and return the infrastructure investment.

"We continue to work very collaboratively with TasPorts under our reset relationship and they deserve credit for forward-leaning on this successful outcome," Mr Blackie said after meeting with TasPorts executives.



Currie Harbour slipway now repaired and reopened to fishers for boat repairs.

King Island fishers and boat operators were concerned about the closure of the Currie Harbour slipway last November when the commercial Southern Rock Lobster season was due to open.

With the slipway closed fishers travelled to the Port of Stanley. Some fishers travelled to Hobart due to Stanley's slip congestion and lack of space and others to Victoria for boat repairs.

"TasPorts closed the facility last year because of the poor condition of submerged sections of the slipway given its age and exposure to the marine environment over many years. The decision was an important one taking account of the safety of King Island's fishing fleet operators, TasPorts' personnel, and the wider community," TasPorts said in a statement.

"TasPorts would like to thank the local fishing community, particularly Paul Graham, which worked so collaboratively with us on the remediation project," TasPorts Chief Executive Officer Anthony Donald said.

"The work was completed by Tasmanian-based contractor BridgePro Engineering."

Covid risk level 'low'

TASMANIA'S Covid-19 and respiratory infection risk level has been changed from moderate to low after continued low numbers of cases and declining influenza and Respiratory Syncytial Virus cases across the community.

A low risk level means cases of Covid-19, influenza and RSV per day in the community are decreasing or stable, and Tasmania is not seeing as many serious respiratory infection cases in hospitals and aged care facilities.

Health Minister Guy Barnett said.the news was welcome.

"The Government will continue to be informed by public health advice as we have done throughout the pandemic," Mr Barnett said.

"Importantly, Tasmanians can protect themselves from illness by ensuring they are up to date with their vaccines and staying home when they're unwell."

For more information about Covid-19, including care options and risk levels, visit www.health.tas.gov.au/covid19

Light on horizon

THE King Island Council has taken steps to ensure delayed repairs, repainting and maintenance works on Currie Lighthouse are completed this summer.

"The King Island Council has terminated the previous painting contract for the Currie Lighthouse and we are retendering for completion of the painting and corrosion protection works, in accordance with the required specifications to protect the Currie Lighthouse from the relentless King Island weather," Mayor Marcus Blackie said.

The Currie Lighthouse's previous refurbishment, paint and repair was nearly a decade ago.



Currie Lighthouse.

The lighthouse comes under the auspices of the King Island Council and in 2020 $450,000 was allocated for the refurbishment and tendered, however, the works were delayed due to the Covid -19 pandemic and commenced in January 2022.

"We anticipate the new contractor will complete the remaining rectifications during the upcoming summer period," Mr Blackie said.

"Once this work is completed the lighthouse will then be able to open for the long-awaited public lighthouse tours that have attracted significant advance interest," Mr Blackie said.

ConocoPhillips

Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
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Kelp plays a vital role in rocky nest



There are several locations where the Black-faced Cormorants nest around King Island. This image shows the steepness of the rock and the bulky nest which is made from kelp. There are several well-grown chicks in their nests while a few adults linger as the others go out to feed and bring fish back for their chicks.

Picture: MARGARET STANSFIELD

MARGARET STANSFIELD

JUST north in Currie Harbour is Gull Rock, well known to our local fishermen.

Recently I did some observations from Devil's Gap, noting the weather and ocean conditions, as well as the time I was there. As an observer of the coastline, I'm not usually in one spot for any length of time. It might just be for a few minutes and often determined by the amount of time available and the number of birds in the area to watch.

My observations are just a snapshot of that brief period, and if I go back to the same place later, the observations are always different. Occasionally the results are very different - as the birds are moving all the time.

A brilliant observation point is on the top of the cliff at Devil's Gap, looking westward towards the horizon. I saw several fishing boats and one of them was motoring back towards the harbour followed by several Australasian Gannets.

They were soaring above the waves with no sign that they were feeding. Closer inshore, Silver Gulls were randomly flying about, while several Black-faced Cormorant were flying low over the water from the north in a direct line for Gull Rock.

Along the waterfront, fresh kelp gets dumped on top of older kelp.

I could see little kelp flies in the sunlight, a perfect place for the Pied Oystercatchers to be gorging themselves in preparation for their breeding season.

Hooded Plovers were on a nearby patch of sand enjoying a meal of flies and hoppers near the edge of the water. Rotting kelp is an important source of food for our shore birds as it breaks down like compost and provides an ideal environment for hoppers to breed and a place where kelp flies lay their eggs.

Hoppers will bury themselves under the kelp or dig into the sand while kelp fly larvae provide excellent protein for foraging birds.

Dense wind-pruned and stunted coastal scrub surrounded me.

These bushes were loaded with small bush birds darting in and out, chasing small insects and whatever else they wanted to eat.

The White-fronted Chat is often seen feeding on the kelp and is common around the coastline, although they can be found further inland along with many other small bush birds.

I could see birds on Gull Rock, and I walked closer to investigate. Gull Rock is a safe haven for breeding birds as it is surrounded by water at all times of the year.

This makes it more difficult for feral cats to hunt and eat incubating birds and chicks. Although I only viewed the rock from one angle, I could see a large colony of nesting Black-faced Cormorants.

Some were sitting on eggs, while others were still building their nests, flying in with beaks full of soft kelp. Some of the substantial nests were on quite steep rocks and as the kelp dries the nests stay in place, so the eggs and chicks don't tumble out.

A few Gulls were perched up near the top of the rock as well as several Crested Tern.

Gull Rock is generally used by other breeding birds each spring and summer. Once the Black-faced Cormorants have raised their chicks to fledglings, the Silver Gulls move onto the rock and make it their home while they raise their family of chicks.

And when this is complete, a colony of Crested Tern take over to raise their own families. Gull Rock is a prized place for the breeding birds of Currie Harbour.

It was a most enjoyable and relaxing experience recording these observations for the Tasmanian Bird database. I encourage you to be observant when visiting the beach as you never know which birds you will see.

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Great Gats



The Grassy Football Club's 'Gatsby' themed presentation night was a roaring 'on a toot' success. Spiffy Tristan Forest and Brady Rhodes are pictured holding the three-peat Premiership cups.





ABOVE: GFC Big Cheese Tanya Steelmaker in her glad rags, takes dress-ups very seriously.
LEFT: Geoff French Memorial, Runner up B&F and Most Consistent Award went to Jackson Taylor.



Lookers Emma Hutchison and Wendy Constable were the bee's knees and all that jazz.



Peter Constable dizzy with his ga
ready for a fun Grassy Present





Adult Day Centre Assistant

Details of Appointment

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Photo: Tourism Tasmania

sby! It's Grassy's night



al Wendy and ation night.



Netball Runner-up B & F Leah Hainsworth all dolled up.



Netball Best and Fairest and Players' Player Demi Forrest putting on the Ritz.



Pictorialist Sam Winkel documented the night with the door dame Irene Robins.

SATURDAY night was party time in the Currie Town Hall for the Grassy Football Club.

It was also the club's award night and in Grassy form a night to celebrate the 20s as the club clinched their three-peat Premiership.

Grassy players, committee, members, and supporters pulled on their glad rags, embraced the Gatsby vibe, wine and dined and kicked up their heels to the music of Ally Row.

Grassy Football president Tanya Stellmaker took to the stage, razzed, and shared some memorable Season 2023 stats or as she calls them, 'fun facts.'

• Fun fact no 1: This year Grassy won eight games out of 10, the other teams won 3 and 4.

• Fun fact no 2: Of the Best and Fairest vote at the Keating Medal Count, Currie and North as teams received 62 votes each, yet the season's dominant team of the season, Grassy, only received 57.

"I'd like to think it's because we are a team, rather than a group of individuals, therefore we just get on with the job together without standouts."

• Fun fact no 3: This year we had 23 players who have come through our junior ranks, and one 'very old' player who defected from Currie, five of whom also played juniors this season.

"This is a testament to the importance of junior development.

"Unfortunately, we lose seven of our current junior force next year; four age out and three leave town.

"This leaves a huge hole to fill, so let's hope some new footballers arrive on the island to fill that void."

The hoofers kicked on to the wee hours and after a swanky celebration, the club will start planning for 2024.

2023 SENIOR FOOTBALL AWARDS

B & F - Tristan Forrest
Geoff French Memorial, Runner up B & F- Jackson Taylor
Leading Goal Kicker- Tyler Rhodes
Best Backman- Ryan Frosi
Best First-Year Player - Cruz Osborne
Most Consistent- Jackson Taylor
Best Utility- Brandon Blomfield
Gerald Sartori Memorial, most improved- Sam Reeves
Best Club Man- Jack Noseda
Best in Finals- Tristan Forrest
Encouragement Award- Ryan Payne
President's Award- Rochelle Haneveer
Downlow Medal- Brandon Blomfield

2023 NETBALL AWARDS

B & F - Demi Forrest
Runner up B & F- Leah Hainsworth
Players Player- Demi Forrest

GFC JUNIOR TROPHY LIST

Best and Fairest Rhys Esguerra
Runner up B&F Cruz Osborne
Best in Finals Cruz Osborne
Leading Goal Kicker Rhys Esguerra
Most Consistent Rhys Esguerra
Most improved Lucien West
Best 1st Year Player Ben Smith
Best Backman Tyler Payne
Best Utility Xavier Berkin
Most Courageous Hunter Harvey
Coaches Award Heidi Smith
Coaches Award Xavier Berkin
Encouragement Award Savanna Payne
Best Clubman Ryan Payne

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90 years of fond memories







ABOVE: Old and newer family friends celebrated Jan Strickland's 90th birthday at Marshall's Road.
BELOW: Back left to right: Daughter in law Helen Strickland, son-in-law Fred Wesley, daughter Sally Wesley, grandson David Strickland, son Brendan Strickland, son Gary Strickland, Steve Bishop and Tim Attrill.
Front left to right: Granddaughter Lizzie Strickland, birrthday girl Jan Strickland cutting her birthday cake, Tracey Richards and Jenny Attrill.

Birthday girl Jan Strickland with grandson David and sons Brendan and Gary.

CELEBRATING a person's 90th Birthday is celebrating a person's lifetime.

Family, friends and Jan Strickland, who lives independently in Currie, returned last Sunday to Marshalls Road where many island memories were made, for her party at her son Gary and daughter-in-law Helen's property.

In Jan's lifetime, Marshalls Road was well known for the Strickland's dairy farm, tennis tournaments, and family and community gatherings.

The Stricklands were connected to the island's dairy industry for generations, and when bought by Gary and Helen from Jan and Dick (dec) were award winners and went on to produce a third of King Island's milk product.

Jan and her husband Dick supported many organisations over the years including Jan winning not only the island but off-island tennis tournaments when tennis was 'the' island sport.

They established the Strickland Family Bursary for the school children of King Island which still runs today. Jan has been active within King Island Lions Club from pre-membership Lions Club as a Lioness in their auxiliary group, at the club's foundation and is a Lion's past president.

Jan is a recipient of the James D. Richardson Award for service to Lions Australia.

She has rarely missed an event, travelled at her expense to represent the island and knitted some of the best jumpers (raising money) that you will find.

Jan's memory is long and strong, and she remembers the shock and angst when the King Island scheelite mine closed and the call to action to provide food and support as the mine cleared out over one week.

She has sold many barbecue van sausages and steak tickets at events, has seen councils come and go, supported many ventures and projects and has an abundance of island stories from her life on King Island that she is happy to share.

Last Sunday was a milestone celebration.

"We had a beautiful sunny day for Jan's 90th Birthday," Helen Strickland said.

"Daughter and son-in-law Sally and Fred Wesley travelled from Launceston.

"Granddaughter Lizzie came from Hobart and grandson David from Melbourne.

"Very old friends who celebrated with Jan included Barbara Lancaster, Len and Cecily Sullivan, Jenny Hill, John De Rooy and Lions Club members Linda Payne and Hans Pedersen."

There are too many names, old and newer to list and many thanks to all who helped celebrate Jan's birthday,"

KING ISLAND BRAND MANAGEMENT GROUP

invites any King Island resident, producer or business operator to come along and discuss how this group could continue to protect and promote the King Island brand.

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King Island

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KING ISLAND HOTEL

AGM NOTICE

King Island Landcare group AGM will be held on **Monday 16th October** in the KIRDO conference room at 5.30pm.

All positions will be declared vacant and nomination forms available from: **accounts@kingislandlandcare.org.au**

We are very keen to welcome new members, so come along and find out what we do.

The ordinary business of the annual general meeting is to be as follows:

a. to confirm the minutes of the last preceding annual general meeting and of any general meeting held since that meeting;
b. to receive from the committee, auditor and servants of the Group reports
c. on the transactions of the Group during the last preceding financial year;
d. to elect the officers of the Group and the ordinary committee members;
e. to appoint the auditor and determine his or her remuneration;
f. to determine the remuneration of servants of the Group.

King Island Landcare

Uncertainty sees farm confidence fall

KAROLIN MACGREGOR
Tasmanian Country

FALLING commodity prices and seasonal uncertainty have caused a significant drop in farmer confidence across Tasmania.

Results from the latest Rabobank Rural Confidence Survey show farmer sentiment across the state has fallen for the second quarter in a row.

Tasmanian confidence fell to -44 per cent, down significantly from -30 per cent last quarter.

While a similar number of Tasmanian farmers expect the agricultural economy to improve over the next 12 months, 51 per cent now expect conditions to worsen, up from 36 per cent last quarter.

Once again, commodity prices were shown to be the driving factor for negativity.

Although fewer farmers nominated this as a reason for conditions to worsen over the next 12 months compared with the previous quarter.

However, there was increasing worry about drought with 19 per cent nominating it as a concern this quarter, up from six per cent in the last survey.

Rabobank area manager for Tasmania, Stuart Whatling, said while there was a long-term trend of farmer confidence dipping at this time of year due to seasonal uncertainty, this year it was compounded by commodity price pain.

"The continued downward trend of red meat prices – coming off historical highs – is the driving factor for lowered rural confidence in Tasmania," Mr Whatling said. "The red meat industry has also been hit by a double whammy of reduced prices hand-in-hand with increased interest rates and input costs. When you factor in the time of year, with spring lambing upon us and concerns about a dry spring and summer – especially in the south and on the east coast – it's contributing to decreased confidence levels."

Although concerns around falling commodity prices were highest for sheep and beef producers, they also remained top of mind for Tasmanian dairy producers. "In the dairy sector, although farm-gate milk prices remain at a profitable level thanks to domestic demand in Australia, we're seeing some factors play out in the dairy industry which are impacting confidence," he said.

"These include the falling away of the Chinese heifer market, as well as the recent announcement by Fonterra in New Zealand of a reduction in milk forecast – these have cast a bit of a cloud on the dairy industry's outlook beyond the 2023/24 financial year."

Big ideas for small business

CHRIS GREEN



Melita Wischnat, Evelyn Caro and Fay Pilon in KIRDO have the October month-long conference program ready for you to collect and it's time to book your spots.

OCTOBER is Small Business Month on King Island. It's back with an enormous range of events tailored to the needs of the business community.

The first King Island Small Business Month organised by King Island Regional Development Organization (KIRDO) and the King Island Chamber of Commerce (COC) was in October 2021 and its aim was to re-energize the King Island economy and assist Small Business operators in getting back to their usual vigour after the island's travel restrictions, border closures and Covid-19 impacts on the local economy. It was declared a success with an amazing conference month of free learning, networking, and speakers.

In 2023 the aim is to present options for businesses to gain knowledge and skills to operate strategically in a friendly competitive environment and the month-long celebration is packed with events open for business operators, employees, and their customers.

According to recently published statistics, King Island has a total of 312 registered businesses with all but one being classified as small. In official terms, a small business is defined as one with less than 20 employees.

KIRDO in partnership with the CoC surveyed all 311 local businesses to learn what the needs of King Island's business owners are and how they would like those needs to be met. Interestingly, but perhaps unsurprisingly, the overwhelming number-one request was for advice about achieving a better work-life balance.

Consequently, the opening event on October 1 will feature Les Watson, nicknamed 'The Time Lord' due to his expertise in self-management and productivity. He is the author of 'Get Back an Hour In Every Day' and has helped businesses in Australia and overseas, both small and large to better manage their time. Les made a big impression when he participated in last year's Small Business Month, which is why he has been invited back as the keynote speaker.

Les will be followed by Sally Higoe, an evidence-based coach, leadership, and team specialist on October 7th who will further help our time-poor and under-pressure business owners with a workshop titled, 'The Fulfillment Formula' which has the aim of helping those who struggle to balance the needs of business and life in general.

The Small Business Month brochure is out now and available from KIRDO. It features a minimum of 25 events throughout the month. Sessions include managing customer conflict, developing new leaders and teams, and a day allocated to entry-level Barista training. Workshops will cover recruitment, workforce culture and development.

Week 3 focuses on marketing design tools, setting up and utilizing the Australian Tourism Data Warehouse (ATDW) which is suitable for all businesses and is not tourism operator exclusive. A movie-themed night session on artificial intelligence (AI) will be a bit of fun, perfect not only for business operators but also for the curious. The final week offers many how-to sessions such as turning your hobby into a business; to exit and how to strengthen a microbusiness. The Tasmanian Government's new business advice services commence in October 2023, and they will present their roadshow around the free support available to assist you in starting or running a business in Tasmania.

The final wrap and celebration of Small Business Month will be held on 27th October from 2 -4 pm at the Brewhouse with free celebratory drink and pizza.

The development of the program and brochure has been a huge commitment for the staff and volunteers at KIRDO. Special thanks are due to Evelyn Caro and Melita Wischnat who have been ably assisted by Fay Pilon and Chris Conn.

Most events can be booked online using the QR codes in the brochure or call into KIRDO 5 George Street Currie, phone 6462 1778 if you need assistance.

Most events are free, but all the paid workshops represent excellent value for money and bookings are required for catering. The organisers are confident that everyone is certain to find something to enhance their business and even help to reach that goal of improving their work-life balance.

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It's written in the stars

with SABINE GABAUER

WELCOME Island Folk. This week the Sun enters the sign of Libra, marking the Spring or Vernal Equinox here in the southern hemisphere.

Day and night are of equal length, like the Libran scales.

This is a time to feel balance, harmony, and relational smoothness, and to work out anything that is not aligned within ourselves or with others.

We are engulfed in Libra's beauty within the scented island air where all the spring flowers abound.

The planets are supporting our efforts for growth and helping us stabilise changes after a prolonged period of introspection and preparation.

As we move ahead, our hearts beat with the spirit of renewal, strength, and a greater capacity for light after a winter of meeting our fears and depths.

ARIES

You are experiencing some magic and empowerment in your work life this week. Your hard work and diligence are paying off. While your work life is receiving a boost, your relationships need some attention. Maybe it is time for a loving, heartfelt conversation with a significant other.

TAURUS

A zest for life is running through your veins bull. The pastures are greener on the other side this week even though nothing can beat the island's lushness and diversity. A well-deserved trip across the waters might be just what's in the cards for you. You will feel more balanced and at ease when you get back.

GEMINI

If you are renovating or thinking about buying or selling your property, the stars align for you this week. Finding the balance between work and play, commitments and creative endeavours could be the challenge for you twins. Don't overthink things, just be. She'll be right.

CANCER

It's a family affair for you crustaceans. Home is where your heart and your hearth are. You might be hosting a party this week. Watch your spending habits as you might be called to revamp or re-decorate. You are the one sign that loves to nest.

LEO

You are shining bright Lion, inside and out. Spring has sprung with such creative and sexual tension. The island's community has got your back and once again you are centre stage. Dare to shine, you know how. You don't have to travel afar; all the glitter is being sprinkled right on your doorstep. Have fun.

VIRGO

This is a week to practice gratitude and embrace your current financial situation. It may not be perfect or your ideal but by being grateful you will keep the ball of abundance rolling. What's been on your back burner is gaining momentum, and opportunities abound. Keep that perfectionism at bay… maybe at 'Surprise Bay' this week.

LIBRA

Dare to take the lead and make some decisions even if it feels at odds. Trust yourself and allow yourself to be the most important person in your environment. Life is a balancing act, and you are in the leading role this week. Follow your dreams and create a vision board or collage. What about an art class offered by one of the many artists on the island?

SCORPIO

This is a week to retreat and take time away from the buzz. Take some time to honour body, mind and spirit and get plenty of sleep. The Equinox invites you to self-reflect and self-care. Scorpio you are the sign that knows how to retreat for the greatest rejuvenation. Enjoy.

SAGITTARIUS

Pack your backpack or even a larger piece of luggage and get out there. You are a social butterfly this week. Spending time with friends is uplifting for both parties. You are open to receiving abundance, even financially there might be some good news coming. Bon voyage.

CAPRICORN

We know you are a committed and hard worker climbing up the ladder, mountain goat. You have stamina and determination and show up for the work at hand. Follow through to the finish line and let the universe bless and reward you. You deserve it.

ACQUARIUS

This is a wonderful week to broaden your horizons and spread your wings. You are social and your unique ideas are powerful and meant to be shared. Enjoy being seen and recognised. You might be picking up your study books and learning about a new subject. Maybe King Island's history is of interest

PISCES

Trust your intuition, go with the flow and do what fish do… Your spiritual nature is heightened this week and you are learning to trust yourself more. Anyone who wishes to engage in deep and meaningful conversations will be drawn to you this week. Embrace purposeful connections. The island folk are a very friendly bunch.

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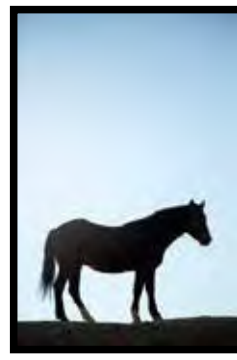
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Pony Club AGM

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KING ISLAND COUNCIL

APPLICATION FOR PLANNING PERMIT

S.57 Land Use Planning Approvals Act 1993

The following application has been received:
Application No: DA 2023/24
Location: Kittawa Lodge, 1272 South Road, Pearshape
Proposal: Restaurant, day spa, private dining room and associated infrastructure.

The application can be viewed at the Council office 10 George Street, Currie during normal business hours or on Council's website www.kingisland.tas.gov.au for a period of 14 days from the date of this notice. During this time, any person may make representation in relation to the proposal in writing addressed to the General Manager, King Island Council, PO Box 147, Currie 7256 or email: kicouncil@kingisland.tas.gov.au

Dated: 21 September 2023.

Kate Mauric
GENERAL MANAGER

KING ISLAND COUNCIL

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Sport

Golf breaks the wind

BUGGY

THE golf on Saturday attracted a reasonable field despite the misty, horrible wind from the northwest.

A pairs event of Stableford was well contested. The links course was in tip-top condition due to the extra efforts put in by the volunteer mowing team.

A field of 22 played, with a win to Marty Monson and Steve Sims, 59 points. Well done lads, a great effort. Runners-up Rab Denby and Mick Lincoln, 58 points. Other good scores were Dave Munday and Brendon Strickland, 57 points. Best individual scores Rab Denby 35 and John Cross and Lance Anderson 33 points.

Nearest the pin 3/12 Jim Cooper

18th Jack Noseda

Money Hole Steve Sims

AROUND THE TRAPS

Lance Anderson launched off the 16th tee with the wind behind him and hit through the green – a fantastic shot. Unfortunately, he three-putted. Adam Hely managed to keep his record intact with his 5th around the Bay hole, out of bounds. The last group of players ended up in the bushes, one should have and Jigs Denby with one arm hit up the middle with a perfect shot.

Assistance with mowing is required over the next couple of weeks.

It's a month until the sign-up for the King Island Open 2023 closes. Go to golfkingisland.com and register.



Winners Marty Monson and Steve Sims.

Life Members set sail



Fred Perry and Gary Johnson received KIBC Life Membership.

THE King Island Boat Club has two new Life Members, Commodore Gary Johnson and Fred Perry.

Wayne (Woody) Woodcock was pleased to present the Life Memberships at last week's AGM.

Both have supported the club over many years.

Past Commodore and Life Member John Brewster who now lives in Victoria, nominated Gary and highlighted his years of service.

"Gary has been a long-standing member of KIBC contributing in a leadership/organisational role whenever needed."

Gary stepped up to coach the Stonehaven team and continued after his own children aged out. He has held various positions on the committee.

"Fred Perry is a valued member of King Island Boat Club," KIBC secretary and acting Treasurer Niki Mead said.

"He was nominated by Andrew Day and Gary Johnson.

"Fred joined KIBC in 1990 and has been the breakfast chef for the King Island Yacht Race (Queenscliff to Grassy) for over 20 years.

"Fred also supplies the wood to KIBC for chilly days fire and barbecue and in the past organised fishing competitions."

Fred and Gary both said they were honoured to receive life membership and they join the club's Life members' honour roll - Don Shaw (dec), Jim Titley (dec), Bob Jordan (dec), Lynette Brewster (dec), Robert Williams, Wendy Williams, John Brewster and Michael Youd.

The incoming committee following the 2023 AGM are Commodore Gary Johnson, Vice Commodore Mark Poulsen, and Susan Poulsen Rear Commodore, Secretary and Acting Treasurer Niki Mead and six other committee members. The club is seeking someone to take on the role of Treasurer.

The first sail day of the new season is October 8 at 10.30 am at the Boat Club Grassy Harbour, followed by a family style barbecue.

Please bring a salad. All are welcome.

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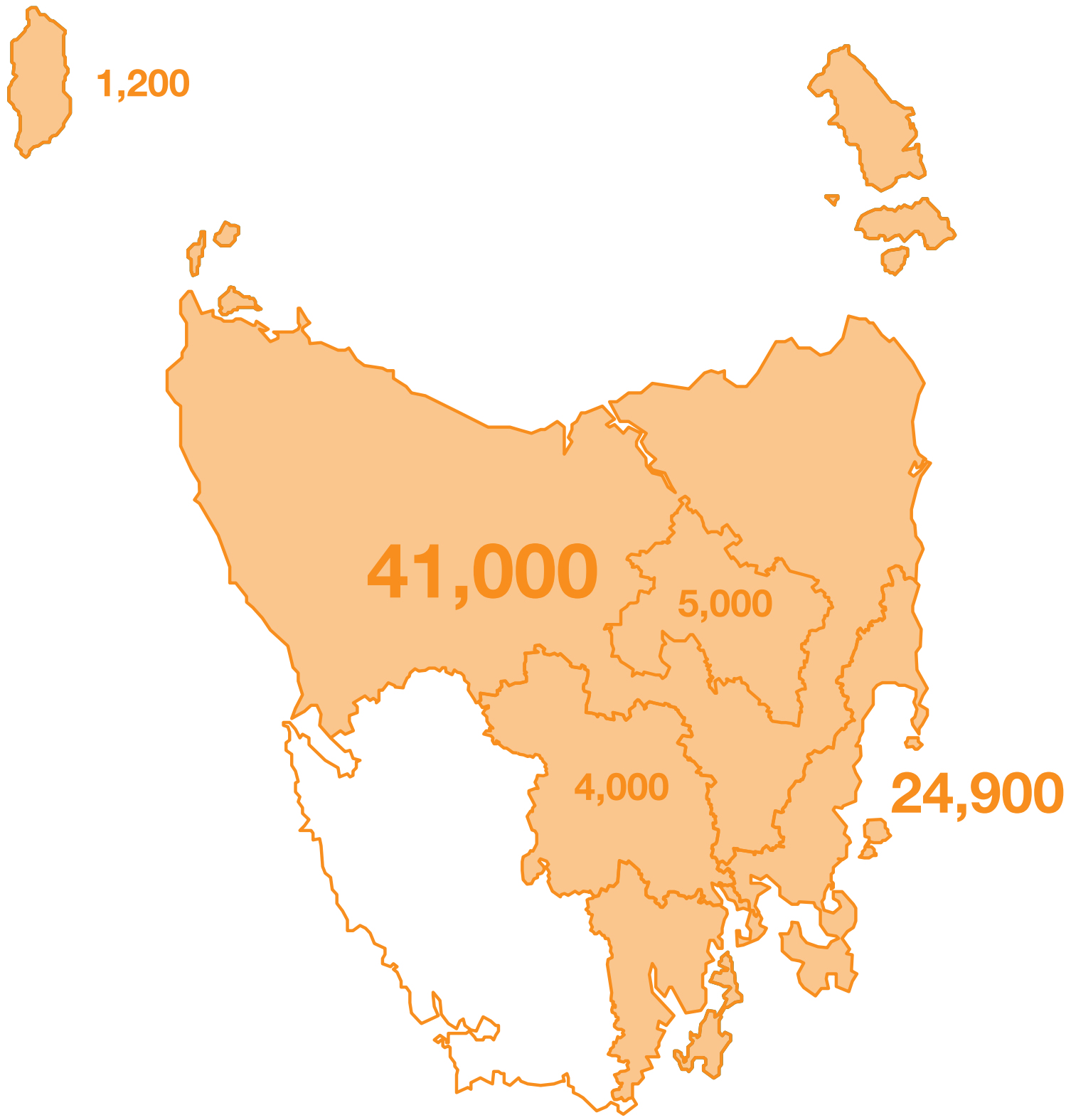
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A Beacon for the Community

Vol. 38 No. 37 | *Thursday, September 28, 2023* | *$1.50*



Beyond the fun and frolic, Talk Like a Pirate Day raises vital funds for a noble cause—Childhood Cancer Support. KIDHS staff joined in the fun for their Launching into Learning Program

STORY: PAGE 4

KIDHS staff Niki Mead, left, Megan Chivers, and Lynda French release their inner-pirate for the school's Launching into Learning program.

King Island freight shakeup looms

SHIPPING FACES STORMY WATERS

THE suitability of the TasPorts/Bass Island Line-owned ship John Duigan for the King Island service has been questioned by a major government inquiry.

The inquiry by the Office of the Tasmanian Economic Regulator into the BIL freight pricing has determined costs are acceptable.

However, it said specialist advice should be sought on available alternatives

Continued page 2

WAR ON FERAL CATS – Page 9

Students free to feel fantastic





KING Island District High School, the Lions Club of King Island, and the King Island Leo Club joined forces and held the third annual Freedom to Feel Fantastic Day.

Freedom to Feel Fantastic is the national positive body image and self-esteem campaign of the Australian Lions Wellbeing Foundation.

The event helps raise awareness and discussion to help us all to see, think, feel, and talk body and self-positive; tear up the negatives; reframe our thinking; and create a world where we can be who we want to be judgement-free.

"Students and staff enjoyed the day that spread the message of encouraging positive body image. Funds raised will go toward supporting the work of the Australian Lions Wellbeing Foundation and the Smith Family charity," the school posted on their social media page.

"What a great experience we had at KIDHS running our third annual Freedom To Feel Fantastic Day. We had a Lion and a dinosaur to help us with our Splat Wall.

"The Lion even helped deliver sausages and cupcakes to everyone (without stealing any). Lions and Leos worked together in the school's kitchen and Leos raised $150," Leos of King Island said.

"Thanks go to students and families who donated coins; to the Bakery for the cupcakes; to KIDHS school staff for allowing us to hold our event; and to the 10 Lions and Leos who clocked up 26 hours of volunteering to make it happen.

"Next year we hope to have an activity for the younger kids." Lion Linda Payne added. Lion's president Bert Nievaart said that he hopes there will be more joint Leos and Lions activities in the future.

ABOVE:
King Island Leos Amelia Poulsen, left, Chelsea Harding, Leila Bell, and Leo Mascot Henry Perry in front of the popular 'Splat wall'.

ABOVE LEFT: Preps to senior students, the Freedom to Feel Fantastic Day was once again a great success.

King Island Courier
A Beacon for the Community

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King Island Courier

Shipping faces stormy waters

From page 1

to the John Duigan based on suitability, level of service and operating costs.

The Regulator found BIL's pricing was within the range of its direct competitors and shipping companies serving comparable markets. The report recommended a review of the suitability of the John Duigan to consider whether the asset base should be optimised.

"I will consider these recommendations and intend to discuss them with the board and executive," Transport Minister Michael Ferguson said.

The Regulator's report states BIL's annual operating and trading results over the past five years have cost close to $22m in taxpayer funding.

"The independent expert report also addressed the range of opinions on Bass Island Line, such as 'operating at a loss, it is setting prices so low as to exclude competition from the market', to the opposing view that its prices are too high and unfairly take advantage of its market position.

"While this service is still not profitable on an annualised basis, it received stronger demand for its services since the shift to the new service model in early 2022," Mr Ferguson said.



Freight is unloaded from the John Duigan at Grassy Harbour.

TasPorts CEO Anthony Donald said the review found no evidence of overcharging by BIL.

"Further, it recognised BIL's pricing behaviour to be consistent with other shippers and that there was nothing in BIL's pricing outside of what is considered normal practice within the shipping industry," he said.

King Island Mayor Marcus Blackie said he needed more time to digest the report but remained hopeful it will provide King Island some leverage.

"More importantly for us, Mr Ferguson also mentioned that he has instructed his department to start drafting the scope for our Grassy port expansion study, to be funded by the State Government.

"So, I will take that as the good news for the week on the shipping front."

There are elements within the report that have raised eyebrows and questions are already being asked by stakeholders around accuracy.

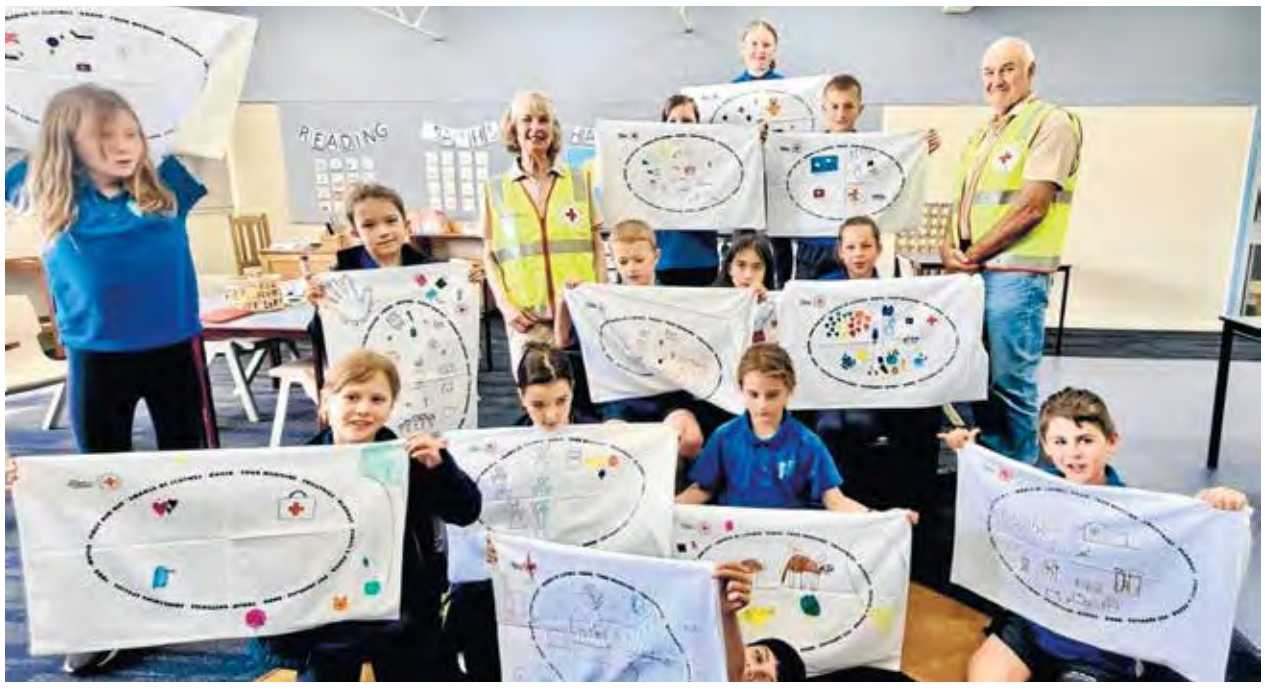
"Bass Island Line has been operating in a competitive, commercial market for more than five years and provides King Island's only dedicated weekly sea freight service," the Minister said.

However, this is disputed by competitor Eastern Shipping Line.

"The report also found that notwithstanding stakeholder concerns that Bass Island Line's participation in the market had the potential to discourage other players from entering the market, a third player has announced its intention to enter the King Island sea freight market," Mr Ferguson said.

Preliminary questions also have asked why TasPorts port charges, which impact freight pricing and costs, have not been included in the report.

Next week's Courier will have the island's stakeholders, shipping companies, and Independent Murchison MLC, Ruth Forrest, who initially proposed the government inquiry into King Island Freight costing and prices, responses to the report.



Red Cross volunteers Ricci and Steve Bishop with Grade 3 and 4 students and their Red Cross emergency preparation and decorated pillowcases.

Be prepared, not alarmed

RED Cross Pillowcase workshops help children prepare for, cope with and respond to an emergency.

Pillowcase was originally inspired by events during Hurricane Katrina in the US. While evacuating campus, students of a local university used pillowcases to carry their cherished and basic possessions.

After hearing this, American Red Cross staff developed the concept of using a pillowcase as an emergency kit. The program quickly grew into a global preparedness education program that has since become known as Pillowcase.

Red Cross volunteers Ricci and Steve Bishop delivered the workshop to Grades 3 and 4 at King Island District High School. The program encourages children to be active participants in their own emergency preparedness.

The content is useful for all kinds of emergencies and includes activities to highlight the importance of being prepared. Pillowcase helps to reduce real and imagined fears and has successfully built children's stress management skills.

Aimed at students in Years 3 and 4 (ages 8-10), the one-hour workshop involved engaging discussions and interactive activities to help students:

- understand and discuss the importance of being prepared;
- prepare their mind for the thoughts and feelings that may arise before, during and after an emergency; and.
- know what to pack in an emergency kit.

Each student was then given a pillowcase to decorate and take home, to start their own personal emergency kit.

Online business advice

OCTOBER is small business month on King Island organised by KIRDO and the Chamber of Commerce and coincides with the Tasmanian state government's launch of their free Tasmanian Business Advice Service.

The new website is now live and registrations of interest will get first access.

Small Business Minister Madeleine Ogilvie says the launch of the website is a game changer for Tasmania's small business community.

"This new website features information for the Tasmanian Business Advice Service and also for the New Business Support Pilot Program, with both services to commence the provision of free and independent advice from Monday, October 2," Ms Ogilvie said.

"Existing small businesses will be able to access up to five hours of advice under the Tasmanian Business Advice Service, and new or early-stage businesses can access up to two hours of advice through the New Business Support Pilot Program."

The Tasmanian Business Advice Service will provide advice on subjects including managing cashflow, marketing, risk management and small business planning and strategy.

"The New Business Support Pilot Program offers guidance on key aspects of starting a business, including establishing a business structure, determining business viability, financial forecasting and identifying new opportunities," Ms Ogilvie said.

"Both services increase the choice and flexibility for businesses as to who they receive advice from and how they receive it by enabling them to select their advisor and to meet either in person or online.

"I encourage any Tasmanian business wanting free and independent business advice to check the site and register.

For more information and to find out how to access these services visit www.business-advice.tas.gov.au.

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Hydro bosses visit island

HYDRO Tasmania is working through options with the Health Department to use the vacant Hydro building in Currie by the island's Volunteer Ambulance and SES

Members of Hydro Tasmania's executive and senior leadership team, including the the new chair Richard Bolt and CEO Ian Brooksbank, visited King Island recently.

This visit aimed to meet local staff, discuss upcoming work, tour field sites, and meet members of the King Island community.

Mayor Marcus Blackie joined the group for dinner in Currie.

"There are no further advances on the vacant building," a Hydro Tasmania spokesperson said.

However, following the Hydro Tas visit, CEO Ian Brooksbank advised Mayor Marcus Blackie there are several factors to work through and he hoped to have a position landed in the near future.

"We understand the need on the island and will be in touch as soon as we have progressed our discussions," Mr Brooksbank said.

Hydro Tasmania is currently using the building at Currie for storage while they assess longer-term options.

"At this stage, no decision has been made about the future of the building. If Hydro Tasmania does decide to transfer ownership of the building in the future, we will follow a fair and equitable process," a Hydro spokesperson said.



Members from Hydro Tasmania's executive and senior leadership team, including new chair Richard Bolt visited King Island last week.

Construction of the almost six-hectare solar farm, comprising 5000 panels is part of a long-term plan for King Island to transition away from diesel and to renewables.

The new King Island Solar Farm was officially completed at the start of August.

Hydro confirmed that there has been a delay in the solar farm completion.

"Currently, Hydro Tasmania is waiting for one final component that will connect the solar farm to the electricity grid.

"We expect the solar farm to be fully operational by the end of October."

Hydro Tasmania's electricity retailer Momentum increased their Bass Strait Island prices by 9.51 per cent on September 1 in parity with the July 1 Tasmanian mainland price rise approved by the Tasmanian Economic Regulator.

King Island has one all-energy Tariff 51 which increased to 31.7933 c per kWh for 2023 - 24. The island does not have other tariffs which are offered to other Tasmanian householders and businesses. Previously Hydro Tasmania said, "Hydro-Tas under their Customer Service Obligation is chartered to guarantee electricity supply on the island …Our Community Service Obligation helps shield the island from the full cost of electricity generation."

Since the first announcement of the Hydro Tasmania solar farm build, the company consistently says "The new solar farm will save an additional 300,000 litres in diesel and 800 tonnes in carbon emissions annually and deliver even greater reliability in electricity supply for local homes and businesses."

Hydro Tasmania has not indicated that there would be any electricity cost saving for King Island residents or businesses due to and following the reduction in the company's diesel purchase from TasPorts nor from the saving of 300000 litres in diesel consumption and the increased usage of solar in their renewable mix.

ConocoPhillips

Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

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SCAN HERE

CMM298844CP_KING

Doubloons for charity

ARGH, avast, ahoy, shiver me timbers, it was Talk like a Pirate Day at King Island District High Launch into Learning program.

In a place not so far away, a heartwarming tradition comes to life each year.

It is a day filled with camaraderie and creativity, where schools, childcare centres, workplaces, and community groups across the country join forces to support a unique cause known as 'Talk Like a Pirate Day."

This international observance started 20 years ago as a bit of fun and has evolved to support many causes worldwide on September 19.

In Australia, the day aids Childhood Brain Cancer support.

People of all ages transform themselves into swashbuckling buccaneers, donning eye patches, tricorn hats, and billowing pirate shirts.

They set sail on their own adventures by hosting pirate-themed morning teas, complete with barrels of beverages and treasure chests of delectable treats.

Beyond the fun and frolic, this day carries a deeper purpose. Every gold doubloon collected during these spirited gatherings is destined for a noble cause—Childhood Cancer Support.

This organisation provides vital support needed to ensure these families can focus on what matters most: their child's well-being.

While the official day of merriment is the 19th, the spirit of giving and togetherness is embraced throughout the entire month of September - National Childhood Cancer Awareness Month, a time when communities unite to bring comfort, healing, and strength to those who need it most.

Talk Like a Pirate Day continues to inspire, reminding us that even in the face of challenges, a little bit of pirate spirit could go a long way in making the world a better place for children and their families.

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Landcare launches weed offensive



Resist the temptation to plant the colourful cape tulip weed in your garden.



One leaf cape tulip is pretty but it is also a toxic and invasive declared weed.

KING Island Landcare is on the offensive against invasive species plants on the island. Some invasive species are considered 'pretty' and easy to grow and are collected to plant in gardens. Over the coming weeks, Landcare will highlight some of the 'pretty' plants that are to be avoided and are targeted for removal.

Cape tulip is smothering the Tip and in Elginshore Drive, Currie, it is spreading out. It is also in Naracoopa, on the airport runway and can be spotted in clumps around the base of trees on properties and roadside verges. It is very attractive, but don't take it home.

It is a declared weed in Tasmania under the Tasmanian Weed Management Act 1999. The importation, sale and distribution of cape tulips by law are prohibited in Tasmania.

There are two species of cape tulip in Tasmania: one-leaf cape tulip (Moraea flaccida) and two-leaf cape tulip (M. miniata). Their features are similar so for practical purposes they are treated as one weed.

Cape tulips are perennial (long-lived) herbs growing to 70 to 80 cm high. The leaves are long and linear and droop above the flowers; one-leaf cape tulip has a single leaf, while two-leaf cape tulip has two or three leaves.

The flowers are usually orange to salmon pink with a yellow centre, but occasionally plain yellow. Flowering takes place in spring. Plants do not flower until they are two or three years old.

Cape tulips produce underground bulbs, or corms, each year; the corms of one-leaf cape tulips are covered by a brown fibrous sheath, and the corms of two-leaf cape tulips are covered by a hard black sheath. One-leaf cape tulip produces seeds and Two-leaf cape tulip does not, but produces clusters of small corms, or cormils, at the base of the leaves and around the parent corm.

> Due to their bright and cheerful flower, they are tempting to pick for a vase or to plant in the garden for colour - but don't.

Cape tulips emerge in autumn after rain. Depending on the season, up to 60% of corms can remain dormant in the soil, while cormils can remain dormant for up to eight years.

Dense infestations can have up to 7,000 corms per square metre.

They are serious weeds of pasture and severe infestations can significantly reduce productivity and are also poisonous to stock. The plant remains toxic even when dry, so contaminated hay can also be a problem. Cape tulips can also invade native vegetation and become an environmental weed.

Due to their bright and cheerful flower, they are tempting to pick for a vase or to plant in the garden for colour - but don't. If you locate cape tulips anywhere on King Island, contact Biosecurity Tasmania on 03 6165 3777 to report this weed or as a landholder or stakeholder, there is a requirement to remove it under Statutory Land Management Plans.

Removal can be done by hand or by chemical controls. A number of herbicides are registered for use on cape tulip in Tasmania and can be found at nre.tas.gov.au with usage guidelines and information concerning waterways protection.

NRE and King Island Landcare recommend that where cape tulip is evident in pastures or roadsides wash down vehicles after works to avoid further distribution and inspect hay bales for corms, and importantly do not plant in cleared areas or in a garden.

Netball fans set to mix it up

KING Island's netball season 2023 is over, but netball on King Island continues and joins the rapid rise in Mixed Netball competitions that are happening around the country.

Mixed sports events are not unusual on the island and have occurred periodically throughout the island's history with matches in football, tennis, cricket, bowls, golf and other, however, an organised Mixed competition is a little more unusual.

Data from the Australian Sports Commission's latest sports survey shows an estimated 115,400 men played netball in 2022 – up from 64,300 in 2020. Women and girls still make up the vast majority of more than 1 million netballers, which has overtaken Aussie rules (924,400) to be the third-highest team participation sport in Australia after soccer (1.7 million) and basketball (1.1 million).

Interstate netball associations and corporate sports companies are reporting the demand for mixed netball competitions is rapidly increasing and they expect this to continue.

In the capital cities mixed office worker lunchtime comps are now commonplace place and it appears to be a sport of choice for many accountants and lawyers and it suits warmer weather nighttime sports activities.

Locally, the senior and junior mixed competition is gearing up with the competition commencing at 3.15pm for juniors followed by seniors at 6pm Thursday, October 26 and both conclude on Thursday, December 7.

There is no cap to the number on a team for the seniors mixed team and there is a maximum of three men per team on the court at any one time

All games are round-robin each week with seniors having two 15-minute halves and juniors two 10-minute halves. Junior teams will play two games every Thursday for six weeks.

The cost for each player is $20. Senior team submissions should be made to kinetballassoc@gmail.com by Thursday October 5.

Junior teams will be assigned during the Term Three school holidays. KINA encourages under 16 players to use this opportunity to try umpiring.

For those unable to make the Grades 3 -10 mixed netball round robin session held last Monday after school who want more information please contact Tegan Hennessey on the KINA Facebook page or email kinetballassoc@gmail.com.

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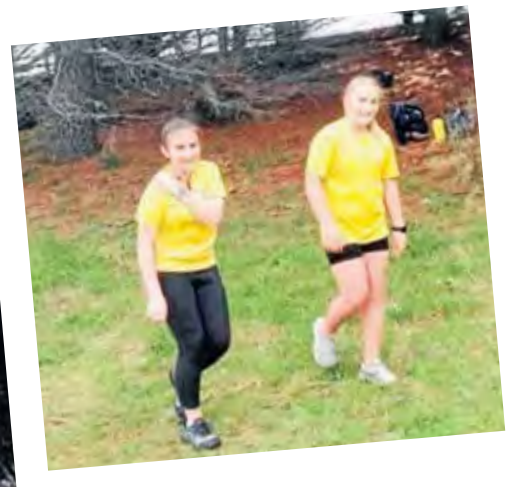
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Sun shines





LEFT: Lusian West heads out on his own.
ABOVE: Maya Flood and Stella Smith from Grade 6



Tyler Payne, Chase Osborne.



Cruz Osborne, Rhys Esguerra, Harrison Lincoln, Seth Bowling, George Freeman, Ryan Payne pound the road in the KIDHS Cross Country held last week.



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s for cross country run





Emily Fisher and Elsey Pinfold set the pace.



Grade 6 student Wendy Fisher out in front at the KIDHS cross country competitions.

North Football Club

Senior Trophies 2023

Trophy	Won By	Donated By
Best & Fairest	Justin Whitehouse Summers	RK Cooper Memorial
Runner Up Best & Fairest	Dale Ellis	Cliff Conley Memorial
Best in Finals	Ned Hunter	B & R Hoare
Players Player	Justin Whitehouse Summers	Leigh Williams Memorial
Leading Goal Kicker	Jeramy Whitehouse Summers	VT Hill Memorial
Best Backman	Taylor Cook	Easton Johnstone Memorial
Most Improved	Riley Badenoch	Christine Robertson
Most Courageous	Bailey Rainbow	Quinton Lewis Memorial
Most Determined	Keenan Fanning	Daniel Deveraux Memorial
Max Summers Rising Star	Mathew Button	M & D Summers
Coaches Award	Luke Graham	G Lee & J Jones
Beef Award	Peter Watson	

North Football Club Junior Trophies 2023

Trophy	Won By	Donated By
Best & Fairest	Mathew Button	Wayne & Gwen Whatley
Runner up best & fairest	Harrison Lincoln	Dave & Enid Williams Memorial
Best in Finals	Mathew Button	Darren Woodcock
Leading goal kicker	Harrison Lincoln	Geoff & Margaret Attrill, Tony & Kylie Alexander
Best Backman	Hamish Johnson	Graham & Bloss Burnell
Encouragement Award	Chase Bowling	Peter & Jenni Watson
Most Consistent	Mathew Button	Phillip & Mandy Mahoney
Most Courageous	Harrison Lincoln	Kath Hunter
Coaches Award	George Freeman	Stacy & Leah Martin

Netball Trophies 2023

BULLDOGS

Trophy	Won By	Donated By
Best & Fairest	Paige Williams	King Island Seafoods
Runner Up Best & Fairest	Elise Nichols	B & R Hoare
Players Player	Elise Nichols	Chris Crouch
Best in Finals	Abbey Davis	GV & A Morris
Coaches Award	Steph Ellis	Jenna Cook



Some fancy footwork by Annalyse Dwyer.

THE King Island District High School annual Cross Country was under a cloud the night before its running due to the island's weather predictions, but by morning the school's runners and parents woke to blue skies and sunshine. The annual event is for all ages across the year levels.

"There was a big crowd of parents who joined us to see the friendly competition at our annual Cross-Country carnival. The final scores were; Cataraqui - 320 Bronzewing – 294. The class champions will be announced and recognised in the first week back of next term," KIDHS principal Denise Bryant said.

Pets part of preparedness



Marian Joubert with Lulu. The Dog Tails family involves three generations (Marian, Harriet and Marian) who breed Dachshunds of all shapes and sizes and encourage the island's pet owners to have a plan for pets and livestock in an emergency.

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RSPCA Tasmania has introduced "READY PET, GO" a project aimed at safeguarding human and animal lives during emergencies.

With the predicted warm and dry spring and summer ahead, risks for bush fires and drought are at an all-time high.

The initiative provides an invaluable solution to lack of preparedness during emergencies by offering free, accessible step-by-step guides and materials.

The resources will help to prepare essential documentation, kits, supplies and plans promptly and effectively.

The "READY PET GO!" package comes with a complimentary brochure outlining three critical facets of emergency readiness and evacuation.

A free QR coded vehicle sticker is also provided allowing users to stay informed about ongoing emergencies across the state regardless of location or travel palns.

The "GET READY" section emphasizes the gathering of vital documents, encouraging their regular review and updating every 12 months as well as storing a week's worth of pet's medication for potential evacuation.

Under "Get, PET," the project delves into crafting an actionable plan and gathering immediate supplies for each pet.

RSPCA Tasmania's guide recognises the ease to which essential items can be forgotten or neglected during emergencies.

The guide addresses transportation containers, leads, comfort items, food and toileting necessities all to ensure pets' comfort, security and continuity of routine during evacuation process.

The "GO" section equips individuals with tools to authenticate emergencies and make informed decisions.

A TasALERT QR coded vehicle sticker allows real-time access to the TasALERT website which aids in determining travel safety, identifying threats to planned safe zones and locating nearest evacuation centres.

"The directive is clear: when it's time to "GO' hesitation could be life-threatening."

The free DL Brochure and vehicle sticker can be accessed from rspcatas.org.au

Asparagus fern
FIELD DAY

King Island Landcare

Come and see a gorgeous spot.
See our Asparagus fern control trials.
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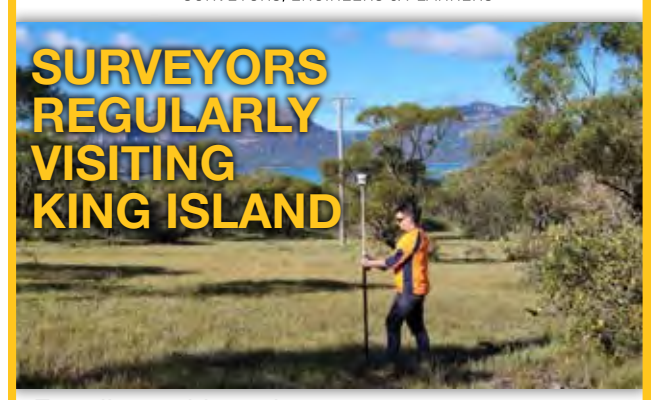
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It's written in the stars

with SABINE GABAUER

THIS week's Full Moon in the sign of Aries represents a culmination of powerful, creative and tense energies that we will be navigating our ship through.

Can we steer our boat safely into Currie harbour within a finely tuned spirit of gentleness and equilibrium, or will we allow the roaring forties to take hold of our inner balance and fortitude?

It's up to us! You smooth sailors out there and expect heightened emotions, unexpected events as well as waves of epiphanies.

This week we are invited to embrace the power of all things "Libran", the scales that teach us about balance, harmony, and beauty within relationships.

A great week to explore the remains of some of the shipwrecks and maybe to re-evaluate the hidden treasures of our own vessel.



Aries – You feisty ram! This week starts with a big bang as you feel a great sense of liberation and the wish to assert your will. Relationships are highlighted as creative tension arises and you will be busy balancing the energies of me versus the other. You can do this!



Taurus – If you find yourself striving for perfection at work this week, try to surrender to what is and remain in the moment. You may feel like a good workout at the newly renovated gym in order to release any built-up and internalized feelings that are ready to be let go of. Work it bull!



Gemini – Your motif of conquest this week is grand as projects and events around your home are gaining momentum. Your mind is active and busy and so are your social interactions. Make sure you find equilibrium from within and lovingly bring any issues to the table. Your kindred spirits will applaud you!



Cancer – Home is where your heart and heart are crustacean! This week might bring some tension between your innermost self and outer-worldly expectations. Allow some retreat time and find the balance between being and doing and this week will be a breeze. Watch your spending habits!



Leo – This week the sun is shining onto your belief system and how you claim your authority while creating win-win situations. You are summoning and integrating a new sense of self that could even surprise your wild cat! A Catch-up with a dear friend might be due for a much needed debrief. The girls at the "Larder" have done a marvellous job!



Virgo – This is a fast-paced week of healing wounds from the past as well as re-evaluating matters of intimacy and closeness. A great week to reflect and spend time in nature as you boost your own worthiness and allow some fresh salty air to sweep out the corners of your thinking mind and your heart.



Libra – You are in the spotlight this week! This week's energy brings up discussing and thinking things through before acting. It is important to act with a well-considered intention that is not based on the past. Here's a hint: Libra + Aries = Libraries … Maybe you will find the book of relations.



Scorpio – This week order meets chaos and commitments mirror sweet surrender. Which one will you choose? Don't take anything personally and allow others to be on their own healing journey. I know you want to go into the depth of the matter, but this week try to be the observer. Stillness speaks!



Sagittarius – What you want and what is might be an odd pair of socks this week. Check with the "Laundry Mat" if in doubt. Harmony and grace yes, peace for any price no! Your urge for autonomy might rock the boat a little. Nothing you can't handle!



Capricorn – Stand your ground this week, assert your vistas but refrain from passive-aggressive behaviours. Your immediate environs might be triggering this week as you juggle family and work life. Spontaneity will loosen any rigid grip. What about a lovely meal at Oleada? It's always a winner and so are you!



Aquarius – You are one of the social signs this week, inclusive and involved in community shenanigans. This week could see you taking on an assertive and leading role. Close relationships could instigate sudden changes and surprises bringing a fresh spring-like flair into your already colourful life. For any advice on art and colour ask Karryn Lesley.



Pisces – Still waters run deep like at "Penny's Lagoon" … If you have been overspending lately, this week you will get the reminder that balance is required. Themes around mine, yours and ours could be the monster arising out of the depth. A great week to let go, put your flippers on and swim steadily….

War declared on feral cats

FEDERAL Environment Minister Tanya Plibersek has declared war against feral cats – Australia's latest "environmental disaster" bringing native species to extinction.

The federal government will act against feral (free roaming) cats as part of a new national action plan pitched to save thousands of native species on the brink of extinction.

Cats kill 6,000,000 animals every night and two billion reptiles, birds, and mammals in Australia every year, and are responsible for about two-thirds of the most recent native animal extinctions seen across Australia.

Ms Plibersek said she wanted to see a feral cat-free Australia.

"If we are serious about protecting our precious threatened species, then we have to tackle one of their biggest killers," she said.

The government will move to save vulnerable species by rolling out a new tool, Felixer, designed to kill feral cats by spraying them with a toxic gel and look at expanding cat-free fenced and island havens.

"We know that people love their domestic cats. While they have to look after them, have to keep them inside, they have to stop them killing wildlife," she said.

The federal government has already invested $4m to eradicate feral cats from Christmas Island and $2.2m towards the French Island feral cat eradication program. It will seek to develop new cat-killing technologies, including the Felixer cat grooming trap, which was approved by federal authorities for use in June.



The endangered endemic King island Scrubtit is at risk from predation by feral cats.
Picture: MARK HOLDSWORTH

On King Island, the stakeholders invested in cat management are King Island Council, King Island Landcare Group (KILG), Cradle Coast NRM (CCNRM, part of Cradle Coast Authority, CCA), and TassieCat, which is funded by the Tasmanian Government.

Biosecurity Tasmania also has a role in cat management as they administer the relevant legislation and the Tasmanian Cat Management Plan.

A King Island feral cat eradication or control program is not currently funded.

The recent Tassie Cat King Island community survey suggested that there is continued support for cat management, and respondents are concerned about the impacts of free-roaming cats, particularly on wildlife.

A lesser-known publicised problem of roaming cats is the spread of toxoplasmosis.

Toxoplasmosis is caused by infection by a parasite Toxoplasma gondii.

All warm-blooded animals are susceptible to toxoplasmosis infection including humans, wildlife, and livestock.

Toxoplasmosis is cat-dependent and is considered rampant in Tasmania, with studies showing that more Tasmanians have antibodies to toxoplasmosis in their bloodstream than mainland residents.

Toxoplasmosis is estimated to cost Australian agriculture $10 million per annum and $76.2m in direct human costs which include medical, residential, therapeutic, and other direct health costs of the disease.

Humans become infected when they ingest oocysts (tiny eggs), which are in the soil and dust in places where cats have defecated, especially sandpits, vegetable gardens or kitty litter.

Humans can also become infected from eating undercooked meat if those farm animals have come into contact with cat-shed oocysts.

The most at risk are the immune-compromised, and pregnant women.

King Island Landcare Group has carried out cat management programs in the past including trapping feral cats and offering reimbursement for desexing services, with the aim of protecting native wildlife.

In 2023, KILG started a new project assisting primary production landholders with feral cat control.

King Island is home to two critically endangered and endemic bird species: the King Island Scrubtit and King Island Brown Thornbill which are vulnerable to cat predation.

As part of Cradle Coast NRM's efforts to improve habitat and reduce threats to these species, the Cradle Coast regional NRM Committee has funded the lease of four Felixer grooming traps that are being trialled on King Island.

The first stage is a photo-only trial and managed under all relevant legislation and permits and in collaboration with King Island Council and KILG.

KILG is currently providing a small number of cage traps to landholders managing primary production land.

KILG is recording details of trap locations and results and informing landholders of their legal responsibilities.

A collaboration with Deakin University is enabling additional monitoring data to be collected from a network of wildlife cameras across the island to study feral cat population and distribution and a component planned is feral cat stomach analysis using cats trapped by KILG landholders to determine what native species are most vulnerable to cat predation.

Since March 2022, it has been a legal requirement under the Tasmanian Cat Management Act 2009 to desex and microchip any owned cat over the age of four months.

KILG is not currently funded for cat management projects, however, they can lend out cat traps free of charge to anyone in the community.

A trap would come with information on the state and federal legal agencies' requirements.

This includes that any cat trapped within 1 km of a residential property must be checked for a microchip to ensure they are not a pet.

All cats caught and determined to not be domestic pets, must be euthanised humanely (shot by a licensed shooter or taken to a vet).

"Cat owners can do best for themselves, their cats, and King Island native wildlife by keeping their cats indoors, ensuring they are desexed and having them microchipped and collared," Landcare said.

"King Island Landcare is not against ownership of household cats but merely wants them to not pose a threat to the overall population of the native King Island species."

King Island Courier
A Beacon for the Community

Bowls

Greens ready and waiting

BOWLS on King Island has gone from strength to strength over the past few years. Barefoot Bowls on a Thursday night is a hit welcoming both residents and visitors.

The Saturday individual and team comps are social yet competitive and the 2023-24 season is about to start.

Bowls practice started on Saturday, and everyone is welcome to the King Island Golf and Bowling Club from 1pm.

The greens are ready and waiting for both beginners and experts (or would-be experts).

Island bowlers willingly assist and coach beginners and no one should be nervous about taking up the game.

It is a very sociable game and people of all ages and abilities can take part.

Its simple rules mean that it's an easy game for first timers to understand.

It's also a great form of exercise, and its low-intensity nature means that there is minimal risk of injury, so people with limited physical ability can still take part and it's a great way to meet new people of all ages and island interests.

The KIGBC club rooms encourage the social side where golfers, bowlers, locals, and visitors mingle over the spring and summer months.

Bare Foot Bowls will be starting on Thursday, October 5, traditionally followed by a barbecue and Saturday's individual and team competition start and the tournament dates and sponsors will be announced soon, so in the meantime get some practice in.





ABOVE: The footy season is a memory and Craig Constable hits the greens and starts practice for the start of the island bowls competition. RIGHT: Kylee Shackcloth keeps greenskeeper Doug Bell in trim.
Pictures: Kirstie Russell.

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Golf

Golf's glory days ahead



Players from Torquay crossed the ditch for their annual golfing ritual and get the season started at the King Island Golf and Bowling Club. Picture: KIRSTIE RUSSELL



Adam Hely and Roger Clemons planning their King Island Golf Open strategy.

BAYWATCHER

WHAT a glorious day for golf on Saturday. No wind, the sun shining and 37 players vying for the win.

Rod Graham started off with a mind-blowing 24 points for the first nine and then fell down the tattooed rabbit hole on the second nine with 10 points.

David Munday is back in form taking out the runners-up prize with 38 points, and there was a lot of noise around Lance Anderson's 41-point win.

3/12 - No one

18th - Judy Cooper (with a great shot)

Money Hole - Brendan Strickland

Pud Watts played his last competition game for the next couple of months with time off for a knee reconstruction, grease, and oil change. All at the club wish our beloved member a successful operation and speedy recovery.

Buggy, our regular golf correspondent, is again off Island walking the dogs and drinking wine with his lovely wife.

Thanks again to our tremendous volunteer team for such a brilliant course.

A reminder the 53rd Carlton & United Breweries King Island Golf Open is Nov 3-6 and registration is now open. Friday is the warmup chicken run and Calcutta (enter on the day any time after noon) and social. The main 36-hole event is on Saturday and Sunday (tee off from 7.00 a.m.). Sunday is a seeded draw depending on Saturday's results. The weekend wraps up with an 18-hole 4-ball event at Cape Wickham golf course.

Get online and book you spot golfkingisland.com Tel: 03 6462 1366

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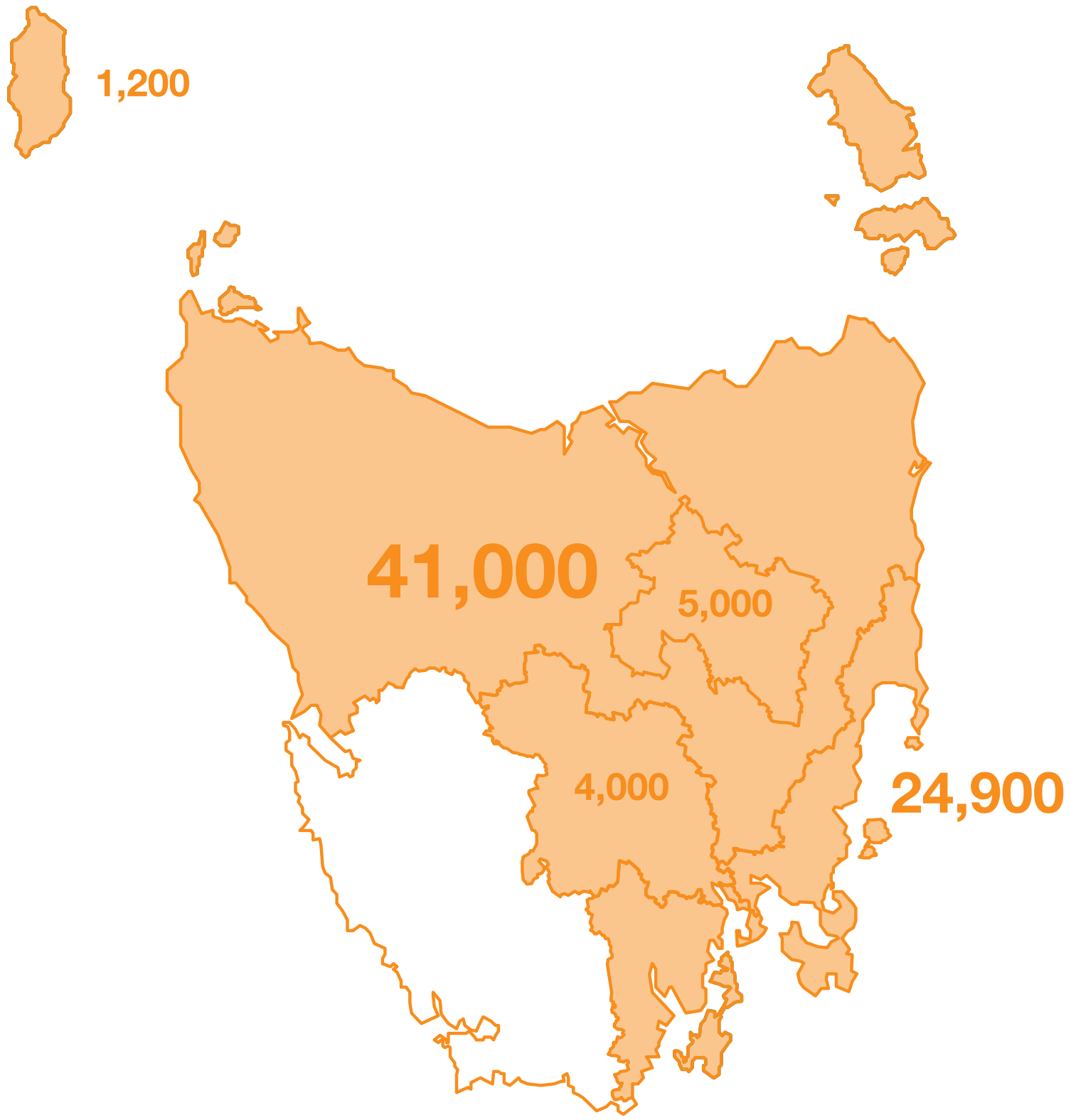
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School goes by the book



King Island District High School was a blaze of colour and fantasy as characters emerged from the school bus and drop-off cars during Book Week celebrations this week

STORY, PICTURES: PAGE 4

Favourite book characters came alive at KIDHS during National Book week.

Would-be troublemakers on notice

BOOZERS FACE BAN

TROUBLEMAKING drinkers have been warned if they engage in violent, criminal, or anti-social behaviour at a licensed premises they may find it hard to get a drink on King Island.

The King Island Liquor Accord has recently introduced the multi-venue barring policy covering all licensed venues that are members.

The Liquor Accord signatories at this time are The King Island Hotel, The King Island Club, The King Island Golf and Bowling Club, the Grassy Club and the King Island Brewhouse.

The "barred from one, barred from all" initiative will see patrons barred for between three months and life from all participating venues and businesses depending on the severity of the act.

The King Island Police fully support the King Island Liquor Accord and its members in their endeavours to promote safe and responsible drinking and reduce alcohol-related crime by introducing this policy. Brewhouse co-owner Corey Brazendale said the Liquor Accord was not a new thing on the island.

"There was similar solidarity and a Liquor Accord with venues going back over the years," he said.

"Licensees meet periodically and this is a way that they can be proactive, can support responsible alcohol sales and consumption, and safeguard individuals, the community, and the establishment," he said. "We want to make our expectations around drinking clear to patrons and to the community.

"Licensees take their roles very seriously and we can administer these controls if needed ourselves.

"We generally don't have any trouble and are very family-friendly, and we are supportive and part of the accord," Mr Brazendale said.

GRASSY MAKES IT THREE IN A ROW – Page 6&7

Mine officially opens

THE Group 6 Metals (G6M) mine was officially opened last week and a plaque was unveiled by Tasmanian Resources Minister Felix Ellis to commemorate the occasion.

In July, G6M showcased its operations for King Island residents when the mine commenced it's first commercial production.

Last Thursday investors and guests flew in for the official opening event. Guests toured the mine operations and production facilities.

The tour explained how it all works, and a small ceremony marked the formal opening of the mine.

Mr Ellis declared the mine officially operational.

"Fourteen years in the making, it is tremendous to see this economic gamechanger get going," he said.

"The Dolphin Mine is known for hosting the highest-grade tungsten deposit of significant size in the western world.

"In recent years the tungsten prices have surged significantly, and it is now classified as a critical mineral by the Australian Government, and others globally," Mr Ellis said.



General Manager of Project and Development Operations G6M Charles (Chas) Murcott, left, with Resources Minister Felix Ellis on-site at the official opening of the mine at Grassy.

G6M Executive Chairman Johann Jacobs, Managing Director and CEO Keith McKnight, Labor Senator for Tasmania Anne Urquhart and King Island's Mayor Marcus Blackie joined Mr Ellis and spoke of the mine's achievements and milestones after being dormant for 33 years; its critical importance; the contribution to federal, state and King Island's economy and the support received.

"With about 95 full-time jobs expected to be supported through this operation, the mine will be King Island's single biggest employer, keeping roofs over the heads of local families and meals on their tables.

"It also provides a further economic boost to the local community with flow through to local businesses.

"Around $5 million will go into the local economy directly through salaries alone and, for the broader state, around $30 million is expected to be returned to the Tasmanian taxpayer through mining royalties and other payments," Mr Ellis said.

The day was not overly burdened with speeches and formalities and the visitors were able to have, albeit a time-restricted, "King Island experience".

Guests mingled at the mine owned Portlinks facilities prior to going to the site and heard about the mine's history, the journey to this point of formal opening and the value and role of tungsten as a global critical mineral.

Following the opening guests departed the island and those staying went to the King Island Hotel for drinks and dinner with the option of playing golf or taking a culinary tour on Friday.

The Grassy mine first operated between 1917 and 1992 and then closed due to low tungsten prices and geopolitical changes.

It is estimated that 50 per cent of the known mineral resource is unmined. This year, the company embarked on an exploration drilling program and aims to test the full potential of the area (63 sq km) under exploration lease and to extend the Dolphin Tungsten Project life beyond the current 14 years.

G6M's plan is to resume exploration after steady-state production is achieved at the Dolphin Mine, Mr McKnight recently reported to the Stock Exchange.

"All three exploration holes have successfully intersected skarn mineralisation in the mine series validating the exploration potential of the Grassy region.

"The presence of scheelite mineralisation associated with the skarn indicates the right geological processes for significant mineralisation in the district.

"The company is excited by the results from step-out exploration in this region and systematic drilling is planned to allow more targeted exploration on structural targets," he said.

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King Island Courier

Pamphlets put Yes, No cases as Voice Referendum date set

THE Voice Referendum will be held on October 14, Prime Minister Anthony Albanese announced yesterday.

Voice Referendum pamphlets arrived on King Island this week and were distributed to enrolled voters at their registered address.

The Australian Electoral Commission (AEC) is required to distribute a pamphlet to Australian voters, containing the Yes and No cases prepared by parliamentarians who voted for and against the proposed law.

The AEC must administer the law and has addressed media discussions around what will and will not be a formal vote for the 2023 referendum.

The issue is specifically around whether or not a tick or a cross will be able to be counted.

"Much of that commentary is factually incorrect and ignores the law surrounding 'savings provisions', the long-standing legal advice regarding the use of ticks and crosses, and the decades-long and multi-referendum history of the application of that law and advice," the AEC said.

"The formal voting instructions for the referendum are to clearly write either "yes" or "no", in full, in English.

Given the simplicity, the AEC expects the vast majority of Australian voters to follow those instructions and cast a formal vote.

"Instructions for casting a formal vote – to write either yes or no in full, in English, will be part of the AEC's advertising campaign, on the AEC website, in the guide delivered to all Australian households, on posters in polling places, and on the ballot paper itself.

"An instruction will be issued by our polling officials when people are issued with their ballot paper," the AEC said.

"This is not new, nor a new AEC determination of any kind for the 2023 referendum."

If you have not received the pamphlet presenting the cases for yes or no prepared by parliamentarians who voted for and against the proposed law or want to obtain information about the Referendum, the question that will be put to voters, completing the ballot form and other explainers go to aec.gov.au/referendums.

Ambo headquarters a step closer

THERE has been a breakthrough from lobbying by organisations, politicians and individuals for the vacant Hydro-owned building in Geroge Street Currie to be used by King Island Volunteer Ambulance and SES.

The matter was raised during the State Government Regional Cabinet meeting held on the island earlier this month.

Mayor Marcus Blackie said he received a letter from Police, Fire and Emergency Management Minister Felix Ellis on August 18 as a direct follow up to the recent State Cabinet visit.

"The letter states that they have now initiated discussions across the required Tasmanian Government agencies to identify opportunities for multi-use facilities to be established on King Island as a matter of urgency.

"So, this is another firm step in the right direction that we hope will soon approve the repurposing of the old Hydro Tas compound on George Street in Currie for emergency services use in the future," he said.

"That being said, the compound has now been empty for a few years and the clock is ticking to ensure this decision is made before significant further deterioration of the facility occurs.

The King Island Volunteer Ambulance does not have a dedicated base and there has been considerable lobbying.

Considering careers



Students Grades 3 – 10 spoke with exhibitors throughout the day and were able to ask questions, collect giveaways and engage in activities.



ABOVE: MAS National Career Development Team Leader and member of the Intowork network Hope Wooldridge collaborated with KIDHS and island employer groups to run the 2023 Careers Expo.

STUDENTS from the King Island District High School attended this year's Career's Expo in the Town Hall in Currie.

The Expo organised by MAS National provided exhibitors the opportunity to talk to students about careers and pathways from Grades 3 through to Year 10.

Exhibitors ranged from on-island businesses such as Group 6 Metals, and the King Island Council as well as education institutions such as UTAS, and recruitment and training companies.

Older students discussed in-school and vocational apprenticeships, and training and also met with prospective employers.

The Australian Defence Force table was busy.

Navy CPO Sarah Lindsay said that students were keen to know about career paths and were most interested in the travel that she and Army WO Luke Phillips had done.

Younger students enjoyed interactive activities and the exposure helped with vocational and future pathway awareness and options.

Senior students visited Hydro Tasmania at their Huxley Hill operations and were able to find out about King Island's energy production and usage as part of National Science Week and were also able to find out about jobs, training and careers.

The exhibition was open to all businesses and King Islanders and it is hoped that next year even more will attend the customised event to find out about employment, funded apprenticeships, and re/training opportunities for both on and off the island.

Online health option

OCHRE Health Medical Centre has trialled a new online prescription and specialist referral product.

"Don't feel like coming up the practice? Run out of time or don't have the time? No appointments available? Don't worry we have you covered," the King Island Medical Centre posted on social media.

The practice has been trialling a new online feature for existing patients needing urgent repeat prescriptions or repeat referrals. Following the click instructions, the online scripts are sent to your phone, the pharmacy or left at the practice for collection.

Once you have requested an online script, a medical practitioner will assess and accept, or decline based on clinical grounds. If your repeat or referral is very urgent, it is suggested you select collect from the practice to avoid delays in processing time.

A patient may request more than one medication repeat prescription. Fees are payable at the time of the online request. Medical Centre appointments in person or via Telehealth phone or video call are bulk billed.

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School does it by the book

AROUND Australia, the night before Book Week is one of celebration and excitement and for others, it's a night of panic to get a costume together by the morning. On King Island, it's a week of book love and celebration.

The Children's Book Council of Australia's Book Week 2023 theme was "Read, Grow, Inspire," and it was an opportunity for children, teachers, parents, and guardians an excuse to dive into the world of children's books together.

King Island District High School was a blaze of colour and fantasy as characters emerged from the school bus and drop-off cars.

A late school option, for those who needed even more to celebrate, was a request to wear some green and gold to celebrate the Matilda's FIFA Women's World Cup soccer triumphs and their fairy tale.

There was Wally, Harry, a few Spidermen, a crocodile or two, cowboys and princesses, witches and farmers and the not-so-well-known characters that have grabbed the hearts and minds of our island's young and not-so-young readers.

The school held a parade for the big and small and embraced their communal love of books and reading.





ABOVE:
KIDHS Teachers and staff joined students and together got creative to celebrate National Book Week.
RIGHT:
A multitude of characters gathered to celebrate books.
BELOW:
Tash Overton goes down the rabbit hole in the KIDHS office.





KIDHS librarian Megan Chivers and Lynda French put their inner child on show.



Ollie Wallis dressed as a zombie pirate for Book Week inspired by Two Stubborn Pirates. Ollie thanks his MS Readathon sponsors.

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ABOVE: Grade 1/2 students Kamaljot Bhangu, Patrick Muir, Charli Towns and Amber Payne.

LEFT: Prep students are being assisted by Sharon Lee.

Innovation powers future industries

DENISE BRYANT
KIDHS PRINCIPAL

NATIONAL Science Week is Australia's annual celebration of science and technology. Running each year in August, it features more than 1000 events around Australia.

Established in 1997, National Science Week is a program of Inspiring Australia and provides an opportunity to acknowledge the contributions of Australian scientists to the world of knowledge.

At KIDHS, Science Week was led by Jen Holbrook, our Head of Science.

This year's theme; Innovation: Powering Future Industries, provided our students with opportunities to learn through inquiring into the possible technological advances of the future.

The theme incorporates the advancement in technology in all industries, especially using artificial intelligence (AI).

The curriculum focus of the theme was on: Science as a Human Endeavour; Chemical Sciences; Physical Sciences; Earth and Space Sciences, and Biological Sciences.

A range of projects was undertaken across the school.

Parents and community members visited the school on Sunday to view our students' work and The Rock Cafe served coffee and sweet and savoury treats.



Prep student Bodhi McGrath undertook a STEM challenge to make a Mars Rover for National Science Week.

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Grassy makes it three in a



Grassy Football Club Premiership Team 2023
Otto and Jack Noseda, Sam and Adeline Reeve, Zac Chandler, Ryan Frosi, Ron Muller, Rory Taylor, Dale Reed, Jackson Taylor, Dylan Keeley, Brady, Reuben and Ayla Rhodes, Aaryn Wardlaw, Brandon Blomfield, Tristan Forest (captain), Sadie and Harrison Forest, Tyler Rhodes, Arnold Stellmaker, Craig Constable, Justin Sharman, Chris Barnett (coach), Marty Monson, John Wombat Campbell, Maverick, Freddy and Roni Tatawaqa, President GFC Tanya Stellmaker (front seated).



Three Premiership cups in a row 21, 22, 23. Craig Constable GFC player and Grassy Juniors coach and father Peter Constable with the three-peat Senior trophies.

Currie/North in a close junior Grand Final

KING ISLAND FOOTBALL ASSOCIATION JUNIOR GRAND FINAL

Grassy ..... Currie/North
1-4-10 0-2-2
2-4-16 2-6-18
4-8-32 5-7-37
7-8-50 7-12-54

Grassy
Goals: Xavier Berkin 3, R. Esquerra 2, T. Berkin, Cruz Osborne
Best: R. Payne, Cruz Osborne, X. Berkin, Chase Osborne,
C. Stellmaker, C. Harvey, R. Esquerra

Currie
Goals: L. Reeman 3, Hugh Lincoln 2, G. Freeman, M. Button
Best: L. Reeman, M. Button, T. Hyde, E. Clemons, M. Poulson,
A. Perry.

THE junior Grand Final went right down to wire with the Currie/North combined side winning the game with the last kick of the day.

The game had been tight all game with Grassy leading early and then Currie/North fighting back. Currie/North had a 2-point lead at halftime and a 5-point lead at three-quarter time.

The last quarter saw Grassy regain the lead, but then Currie/North got it back. Grassy got the lead again and looked like that was it, but Currie/North kept attacking their goal but were only kicking points.

Grassy were able to clear it again but only as far as the centre with Currie/North moving it forward to a running Mathew Button who was able to get his big boot to the ball and saw it go over the Grassy players and roll through for a fantastic goal.

The went back to the centre and the siren blew to see them win by four points in what was a great game.The Keven Grave Medal for the best player in the grand final went to Tyreese Berkin from Grassy and was presented by Kevin Grave himself.

Phoenix Community House Inc.
A Symbol of Hope
A Triumph of Will over Circumstance

ANNUAL GENERAL MEETING

Wednesday 13th September 2023

Hoopers Room, King Island Club

6.30pm

Agenda

- Confirmation of 2022 AGM Minutes
- President's Report
- Treasurer's Report
- DRAFT Annual Report incl. Auditors Report
- Determination of Membership Fees for the following year
- Election of Committee
  Nominations must be received by the 8th September 2022
- Appointment of the Public Officer
- Appointment of the Auditor

Members must be financial to nominate and vote, payment would be appreciated before the meeting.

Sally Haneveer, Public Officer.

KING ISLAND FOOTBALL ASSOCIATION

IT IS finally here, the last Saturday in August and the 2023 King Island Football Association's Grand Final day where the minor premiers Grassy Hawks will take on the Currie Robins.

All clubs, umpires and support staff wore black arm bands for the passing of Peter Youd this week. Peter was a long-time supporter of the Currie FC and football in general on King Island. He was president of the KIFA for 6 years from 2010 to 2015. A minute's silence was held for him before the national anthem.

Grassy started hot to trot and were first to score through Jackson Taylor with some hot wheels on sprinting up the wing but ground grubs the kick into the goal post, a second attempt is also made by Grassy with a Brady Rhodes mark that he dribbles over the boundary for a throw-in.

Currie win the clearance to get their first serious look forward for a behind by Ben Doherty. In a forward press for Grassy, the ball meets a contest and dribbles over the boundary again.

Currie have indeed brought their high-pressure game into the final and neither team can get a clean hand to it, but the ball spends a lot of time the Grassy forward line early.

Rory Taylor is also making an impact early. Pressure from Clint Stretton onto Sam Reeves means his errant kicks is immediately turned over. In the Currie forward area, Dylan Keeley gets a look at the ball but has neither the time or space to make an impact. Jack Worral marks in defence, the turnovers are fierce and the only consistent thing happening so far in this game.

Sukma Bowling touches another on the line for Grassy, so far behinds have been the only score available. Dale Reed has the ball outside 40m and looks for a way in but all he's met with is congestion. Brandon Blomfield gives Grassy something to aim at in the forward line but no possession is easy and J Taylor takes a well-fought mark just left of the goal from a body-on-body with Joel Williams, and the result is the same, just left of goal.

The pace of the game moves quickly and I fear if I stop typing for even a moment I will miss things, which I almost do when Tristan Forrest runs from the centre, breaks the drought with a big kick and a lucky bounce for the first goal of the match.

The Taylor boys link up to put Grassy forward again but are met by Worral who turns it over and gives Currie another shot forward, while Currie's pressure has been intense their forward entries have been few and far between, they do not have the luxury of missed opportunities today. Forrest, again, gets possession at centre half forward and wheels around a few to slot his and Grassy's second of the match.

Jack Noseda in defence plays in front for an easy turnover and Grassy goes forward again to their leading goal kicker Tyler Rhodes who gets involved, a shot on and his big kick is an accurate one. Mole(Joel Williams) is doing a power of work for Currie in the middle and is rewarded with a free, into Jak Youd, who slots it over to Keeler who will have Currie's first set shot at goal of the match and he capitalises. Bowling wins a clearance and the contest follows the ball out on the wing. Currie gains possession and another opportunity that Dylan Keeler puts an end to. Grassy go in at quarter time it 14 points up.

Rory Taylor v Michael Laskey in the first ruck, an even contest is immediately held up in congestion. Doug Cox receives a free in the wing and get its forward for Currie until Rory Taylor is awarded a free deep in defence and as Grassy head up the canteen wing Currie is caught off guard, Jackson Taylor sprints out with a shot on with no one home for Currie but gets unlucky on the second bounce and goes through for a behind.

Grassy get a second chance shortly after when T Rhodes gets a free in close to goal and makes it happen. Jackson Taylor out of centre goes into Tyler Rhodes on the lead who goes bang bang with two goals in as many minutes. Grassy get another free up forward and Forrest will line up for another, and gets it. Grassy have blown out the scoreboard in this second quarter but Currie's pressure has not ceased.

Mole kicks in from a behind and they move the ball back to their forward line which meets Noseda's golden fist. Freddy Tatawaqa at full back puts a stop to any scoring ideas Currie has. Bowling gets some air and takes a contender for mark of the year but his kick is errant and finds Grassy's seemingly impenetrable backline. Jakawenko gets a shot at 40 out and gives Currie something to

n row





Coach Stacy Martin with the 2023 Juniors Currie-North Premiers.

FINAL SCORES



King Island Football Association Scores 19-08-2023

Seniors
Grassy ..... Currie
3-3-21 1-1-7
9-7-61 2-2-14
13-10-88 4-3-27
17-11-113 5-3-33
Grassy
Goals: T. Rhodes 5, T. Forrest 4, D. Reed 2, D. Keely 2, J. Taylor, M. Monson, B. Blomfield, C. Constable
Best: T. Forrest, R. Taylor, B. Blomfield, F. Tatawaqua, D. Keely, J. Taylor
Currie
Goals: C. Keeler, C. Stretton, J. Youd, D. Cox, D. Beecroft
Best: J. Williams, T. Smith, J. Bellchambers, J Worral, J. Youd, S. Bowling

cheer about shortly after ,Smith and Doherty put a nice little package together in Currie's forward line but results in nothing.

Bradey Rhodes gets a controversial mark in the pocket and sprays his first one for the day, but the ball only gets as far as the centre where Blomfield tackles and gets the free, goes forward, finds Forrest who goals again. Frosi and Worral in a ruck contest and they both miss everything and flattens them both hard on the deck. Rory Taylor takes an intercept in the centre and runs on, kick is touched by Worral, but Reed runs in and picks it up on the line to chip it through for a certain Grassy goal.

Forrest from the centre, into Reed, back to Forrest who will go for goal and misses by an edge which has been a rarity for him as he has put together a stella performance so far today see him help Grassy to a 47 point lead at half time.

Worral and R Taylor go up in ruck and Bowling gives Currie the first look, until Reeves receives a free, but kicks it into Worral, there is s contest in the middle until Grassy find their way forward and over the line for a throw in that Jackson Taylor speeds out of and gets the first for Grassy in the second half.

With no wind there is a silence around the field since half time, the scoreline continues to blow apart. Jak Youd take a nice intercept mark at half forward and punts one home for a Currie goal. Forrest pirouettes out of trouble, to Wardlaw and push forward where Reed gets a nice low mark in front of the Grassy faithful in the pocket, he makes the most of his opportunity with a long bomb goal. Grassy spend some time up forward.

Arnie (Arnold Stellmaker) gets involved in the centre, Youd sells some candy into Doug who marks, plays on, and runs into open goal. Wardlaw and Stretton in a nice contest that Stretton wins this time getting the ball deeper into Currie's forward line but is met by a roaming, unmanned Noseda for an easy turnover. Bellchambers unusually quite today finds a behind. Reed another goal for Grassy. Perhaps it is the intensity of the game or the chill that is descending but the game is slipping away from Currie. Play has deteriorated but the pressure remains, but some passes get sloppy, players are getting slower and the scoreline continues to widen.

Laskey runs down the wing and dodges two, but the ball gets caught in the centre, and ultimately back in Grassy's forward line where Monson will get a shot on and scores and see Grassy increase their lead to 61 points at lemons.

The final quarter starts and Currie have unleashed Tommy Graham, and to Currie's credit with the margin seemingly insurmountable they continue to go hard and put up a fight to the end. Although, Noseda does continues his free reign in the backline. Youd hits the point post so squarely the top might wobble off. Grassy exit the backline up the golf course side to Keeley in the centre but finds a Worral fist, contest, wich goes over Monson's head and finds the boundary. Bellchambers, to Bolwing, to the centre, Noseda strolling through procures it and pops one into Forrest, T. Rhodes calls for it, but Tristan takes on the kick, misses to the centre that finds Monson who gets it into Keeley who goals it. There's a lot of congestion in the centre and Tristan Forrest takes it out of Currie's forward line, he's been both back and forward today. Tyler Rhodes lines up from the pocket wing probably 20, 30 out. Three minutes to go. There is a ball up in Grassy's forward line. Dyland Keeley comes out with it and has a pot shot for a goal. The ball goes back to centre and what you would think will be the last ball up of the game, Rory and Laskey contest the ruck but there is just more congestion. James Jakawenko takes possession but goes to ground. Grassy sneak in another goal, and as the ball is returned to centre the final siren sounds to the cheers of the Grassy faithful and they become premiers by 80 points for 2023 and see themselves enter the record books by winning 3 in a row for the first time in their history.

Winner of the Jim Sartori Medal for the best player in the grand final went to Tristan Forrest from Grassy and was presented by Jim's son Donald Sartori.



Donald Sartori, Kelsey Watts, Chris Barnett (GFC Coach) with Tristan Forest (GFC Captain) and winner of Grand Final best on ground Sartori Medal with his children Harrison and Sadie.



Junior Grand Final Best on Ground Kevin Grave Medal awarded to Tyreese Berkin GFC pictured with Kevin Grave.

Key steps before cast off

SEPTEMBER is the traditional time for football finals – and summer dreaming about the boating season ahead – as well as an excellent time for regular boat maintenance.

Many Tasmanian boaters stow their craft on trailers through the winter months.

You should check your boat and its components to ensure they are in good order and operational.

In general:

INSPECT aluminium boats for cracked welds or electrolysis, delamination, rotting in fibreglass boats, cracks and general wear and tear.

TEST your steering. Does it move freely? Check the cable or hydraulic line for leaks top up hydraulic fluid if necessary.

ENSURE bung is in good condition and not damaged. Does it seal off correctly?

CHARGE the batteries and ensure they are secured.

CHECK wiring for cracking, loose wires and corrosion.

ENSURE bilges are clean and dry.

CHECK your fuel system – inspect the tank for cracks and corrosion; replace old fuel with new after periods of inactivity; drain water and debris from fuel.

This is also a good to review all your safety gear, including:



Go boating with the confidence of knowing your boat has been serviced and well prepared.

HAVE your inflatable life jackets been serviced in accordance with the manufacturer's instructions.

ARE your flares in date? If they're out of date or close to it, consider purchasing a new Electronic Visual Distress Signal. If you choose to carry an EVDS make sure your vessel is fitted with a GPS enabled EPIRB and a working VHF radio in Sheltered Waters. EVDS are ineffective in daylight hours

TEST you VHF radio to ensure it is functioning correctly Check your EPIRB expiry date and ensure the unit is registered with AMSA.

TEST any electrics operating from the battery such as radios and navigation lights; test that navigation lights and bilge pump work, if fitted.

INSPECT anchor, shackles, chain and line for any sign of wear or corrosion. Make sure shackles are tight and moused (pin secured with wire).

OPERATE your auxiliary engine periodically to ensure it will work when required.

CHECK your trailer. Replace deteriorated rollers and adjust their height for even distribution of load. Test the indicator and brake lights regularly; check tyre wear and pressure regularly.

REPLACE the trailer's tie down straps if frayed and replace the winch cable/strap if it has become frayed.

Make sure you have your outboard or diesel engine serviced. For regular servicing and advice on servicing intervals contact your local outboard or diesel engine dealer.

Manufacturers usually recommend a service by a specialised workshop at least every 12 months.

All of this preparation means that the next time you go boating, you can be confident knowing that your boat has been serviced and is well-prepared.

For more information and tips, go to: https://mast.tas.gov.au/safe-boating/vessel-maintenance/

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Races to ring in New Year

TASRACING has accepted the King Island Racing Club's request to hold the King Island Cup day on New Year's Eve, Sunday December 31 instead of January 6.

The 2023 racing season starts w ith the Official Trial Day on November 18. Ladies' Day will be Saturday, December 2 and KI Beef Day Saturday, December 16. There are races on Boxing Day and New Year's eve.

There are three race days scheduled in 2024, KI Recreation Day Saturday, January 13, the Maritime/Miners Rest Cup Day, January 20 and Southern Airlines Fly-in Day Saturday, January 27, 2024.

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North Football Club
Junior, Senior, & Netball

Annual Presentation Dinner

Friday 15th September
At the King Island Club
6.00pm – formal dress

Three course dinner $60 per head
Junior players (3 course) $40
Kids meals $20

RSVP to Chloe Watson (0429621592) before 8th Sept

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Shipping review report due

THE Office of the Economic Regulator (OTTER) confirmed last week that the report from their inquiry in relation to the pricing policy of TasPorts' wholly owned subsidiary Bass Island Line (BIL) will be handed to the Treasurer and Minister for Infrastructure and Transport by today.

In November 2022, Infrastructure and Transport Minister and Treasurer Michael Ferguson initiated a prescribed body inquiry under the Economic Regulator Act in relation to the pricing policy of TasPorts' wholly owned subsidiary Bass Island Line (BIL).

"The Economic Regulator would be looking at the economic elements and the pricing components that go into prices charged to customers," Mr Ferguson said.



Murchison MLC Ruth Forrest visited King Island to discuss shipping issues with the community.

Murchison MLC Ruth Forrest expressed her concerns in January and again in May about the Office of the Economic Regulator's submission processes, the narrow terms of reference, which do not explicitly include fuel pricing, freight delays and the difficulty many King Islanders may have in presenting a written submission and urged OTTER to visit the island for oral submissions.

The Regulator visited in May; however, OTTER did not undertake an awareness campaign or any advertising to encourage community participation or provide transparency around engagement.

OTTER was criticised for having a "narrow enterprise definition of customer and freight user".

Ms Forrest, said after the OTTER team visited the island there had not been any advertising or information to at least let people and businesses be aware of this visit.

"The expectation is that it's understood by the regulator and the inquiry that everyone on King Island is a customer.

"Shipping and freight tasks and costs, pricing, and regularity impact everyone every day," she said.

"It's apparent that a highly targeted approach is being used, which misses the point of the total island reliance on shipping and freight.

"They need a full and complete understanding. Everyone on the island has skin in the game."

OTTER was informed that island businesses, who consider themselves regular freight users and sizeable BIL customers were unaware of the OTTER team visit or found out about the visit by an email on their arrival sent by KIRDO.

"The Regulator has identified key stakeholders to consult with, namely major customers, intermediaries involved in the King Island freight task, and those who have been in touch with the Regulator's office," the regulator said.

"Interested parties were welcome to contact OTTER to make a submission."

According to OTTER the Treasurer will receive their prescribed body inquiry report by August 31.

The Treasurer has been asked by the Courier for a response to the report and if the report will be published in due course.

It's written in the stars

with SABINE GABAUER

WELCOME to this week's Astro weather! This week's energies are as unpredictable as the weather on the island.

Just when we feel the warming, nurturing sun rays teasing us with Spring- like radiance, we are surprised by sudden showers and gusts of seaweed infused yet refreshing, rebirthing winds.

The planetary dialogues are very much in sync. Time to batten down the hatches, check all the lines, and get your ship ready to sail.

We've got a tough captain in the Bass Strait this week, so we all need to straighten up to ship out.

How do we best navigate through a week of change, unexpected twists and turns and greater inner focus?

Well, the invitation is to slow down, take a break, don't take on more than you can commit to and don't bite off more than you can chew even if your crayfish pie from the bakery tastes just too good to resist.

This is the week where you want to attend to unfinished business, line up your ducks and chickens, prepare, back up your gadgets, check itineraries and practice mindfulness.

ARIES Relationships are starting to get more harmonious for you as you are invited to heal wounds from the past. Your kindred spirits are supporting you! This is a great week to introduce new lifestyle choices. What about some cold-water exposure at "Pennys Lagoon" to boost your immune system.

TAURUS Your self-worth, likes and dislikes and value system are highlighted this week. What works for you and what is no longer serving? A creative breeze is sweeping into your island life. Check out what's on at Phoenix House, there might be just the right art class for you!

GEMINI Your home life is undergoing some change. It might be time to de-clutter your wardrobe, re-arrange furniture or simply potter at home. You are invited to create more balance between family and work, inner versus outer, intuition and thinking mind. You are a born multi-tasker; you can do this.

CANCER Your home life is more balanced and harmonious even though you might be busier than usual. Remain calm and focused, one step at a time little crab. If you find yourself overthinking things, maybe try a hot bath and a good book.

LEO Have you done your tax return yet Leo? This is a great week for you to get organized with all things money-related! After so much centre stage, take the opportunity to slow down, go within, join a yoga class, or simply be.

VIRGO This week expect some chaos, sudden windfalls, twists and turns. Maybe you can see the beauty in the seemingly imperfect as you might find that the only constant is change. Even this will pass. You are the wise one! Enjoy a blissful walk along Naracoopa Esplanade.

LIBRA You are enjoying social outings and might bump into an old friend you haven't seen for some time. While you are interacting with your peers, you might feel that some valuable "you time" is needed. No big decisions just cruise a bit … what about a scenic drive to Sea Elephant Bay this week?

SCORPIO Your deep urge for privacy is lightened up with community and group activities. Expect last-minute changes and adjustments to any of your schedules. Take a light-hearted approach when re-evaluating your work commitments. How much value do you put upon yourself?

SAGITTARIUS Don't blow things out of proportion or overindulge too much this week. Interruptions in your work schedule might be an invite to take a deep breath and have a much-needed break! It is time for an adventure of the heart where you feel liberated from any constraints.

CAPRICORN You might be questioning your values and core beliefs this week. Your innate organisational skills might get shaken up a little. What if there were no boundaries to what you are called to be and do? Allow yourself to play this week even more

ACQUARIUS This is a creative deep dive into the island mysteries. Expect epiphanies and lightning bolts from the inside while you are attending to tidying up loose ends. A significant relationship might prompt you to re-assess your values.

PISCES You are the last sign in the zodiacal wheel, and you might feel it this week. Who am I? Where am I heading and with whom and when? Just some minor questions you might be asking yourself this week. If you feel trapped, expand your wings and gently fly with an eagle's eye perspective.



Rosellas find island friends

RACHAEL Cannon, Phoenix Community House, and the Men's Shed are working together to help King Island's Green Rosellas.

Last year Rachael erected nesting boxes to provide an alternative dwelling for the Green Rosellas visiting her garden when a natural hollow is not available.

The boxes attract rosellas and provide them with a home for 10-plus years.

Recently Rachael posted on social media that her family has returned for a second season after a good season last year when all three fledglings successfully left the nest.

This year she has added two more boxes around her property, making it four boxes.

"I'm excited to advise Phoenix House has reached out to me with the help of the Men's (and ladies) Shed. They will be making five boxes for me to put up around the island for our Green Rosellas.

"Very generous given the cost of marine ply alone. Thank you, Phoenix House, Katey Griffiths, and Sally Haneveer.

"So, for anyone who has seen Green Rosellas around their place on a regular basis please reach out as it will be good to have an extra set of eyes looking out there.

"Every little bit helps these guys that are special to our island being a subspecies to the standard Green Rosella."

Raymond (Stumpy) Hill is in nesting box overdrive and has set up a colony of boxes. "It passes the time," he said.



ABOVE: King Island Green Rosella happy with a local new purpose-built hollow.

LEFT: As Ray (Stumpy) Hill waits for the racing season to start he has commenced a nesting box production line.

ConocoPhillips

Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

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KING ISLAND REGIONAL DEVELOPMENT ORGANISATION FRRR

King Island Courier
A Beacon for the Community

Golf

Golfers off early to catch footy final

BUGGY

A SATURDAY of calm and sunshine on the golf course with the smell of freshly cut grass. A day to inspire the 19 golfers who all seem to hit off early in the hope of seeing a close footy grand final. Just as well they all enjoyed a game of golf first.

The 4 BBB was a closely contested event. The winners were the match play pairing of Nathan Melville and Rogers Clemons with a solid 45 points.

The next best was 44 points with three groups and on a count back Runners-up were the pairing of Greg Barratt and Garry Batchelor from Tim Barnes and Lance Anderson and Alan Muir with John Mauric.

Nearest the Pin 3/12 Tim Barnes
18th Nathan Melville
Money Hole 14th Roger Clemons

The best individual score was Garry Batchelor with a magnificent 41 points. The next best on 37 points were kindergarten mates, John Mauric and Roger Clemons.

The match play between Roger, the saint, Clemons and Nathan, ET, Melville was finally completed. The saint got off to a flyer with 3 up after three and then the battle began. Both birdied the par 5 4th hole, nip and tuck on the turn, and both birdied the 9th hole.

The saint grabbed two more to go 5 up, as ET had pushed the wrong buttons and needed to reboot. Nathan reconnected, birdied the next hole and drove across the bay. The ball hit the rocks and landed just in front of the green to be 3 down.

The saint prevailed with a twenty-foot putt on the 16th to win 4 and 2. Both players were happy to win the daily competition.

Next week the JBS King Island Beef Monthly medal, a stroke event.



Winners on the day Nathan Melville and Rogers Clemons.

ON THE COURT
Preliminary finals

26th August 2023

Under 12s Rubies (10) def Topaz (7)
Best Players
Rubies - Dakota Davis & Holly Davis
Topaz - Gus Smith & London West
Goal Shooters
Rubies - Beau Hamer 4 - Jade Sims 5 - Dakota Davis 1
Topaz - Lucy Shuuring 2 - Harpah Mullins 5
Under 16s Netherby (40) def Shannon (19)
Best Players
Netherby - Maya Flood & Sarah Lancaster
Shannon - Macey Mullins & Meg Ferrier
Goal Shooters
Netherby - Sarah Lancaster 31 - Lilly Sims 9
Shannon - Heidi Smith 8 - Amelia Poulson 1 - Maddison Hudson 7 - Sarra Davis 3



PRELIMINARY FINALS
SENIORS 25th August 2023
North (62) def Robins (37)
Best Players
North - Abbey Lewis & Elise Nichols
Robins - Molly Potter & Gina Hendricks
Goal Shooters
North - Paige Williams 36 - Jenna Cook 26
Robins - Karolina Jacobson 21 - Gina Hendricks 16
GRAND FINAL OPEN WOMEN Friday 1st September Salty's v North Live streamed King Island TV from 6.15 pm. To watch go to King Island Netball Association or King Island TV's Facebook page or search King Island TV on YouTube.

King Island Courier
A Beacon for the Community

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KING ISLAND COUNCIL

NOTICE OF COMBINED APPLICATION FOR A PERMIT AND AMENDMENT TO THE KING ISLAND INTERIM PLANNING SCHEME 2013
s.38 Land Use Planning Approvals Act 1993

DRAFT PLANNING SCHEME AMENDMENT PSA 01/2023
At its meeting 15 August 2023, King Island Council certified draft amendment PSA 01/2013 to the King Island Interim Planning Scheme 2013. PSA 01/2023 proposes to rezone a portion of 45 Morrison Avenue, Loorana (CT 246774/1) from Rural Resource to Utilities.

DEVELOPMENT APPLICATION AND DRAFT PERMIT
Application No: DA 2023/06
Location: 45 Morrison Avenue, Loorana (CT 246774/1)
Proposal: Subdivision of one lot and secure vehicle parking and storage facilities.

The application can be viewed at the Council office 10 George Street, Currie during normal business hours or on Council's website www.kingisland.tas.gov.au for a period of 28 days from the date of this notice. During this time, any person may make representation in relation to the proposal in writing addressed to the General Manager, King Island Council, PO Box 147, Currie 7256 or email: kicouncil@kingisland.tas.gov.au
Dated: 19 August 2023.

Kate Mauric
GENERAL MANAGER

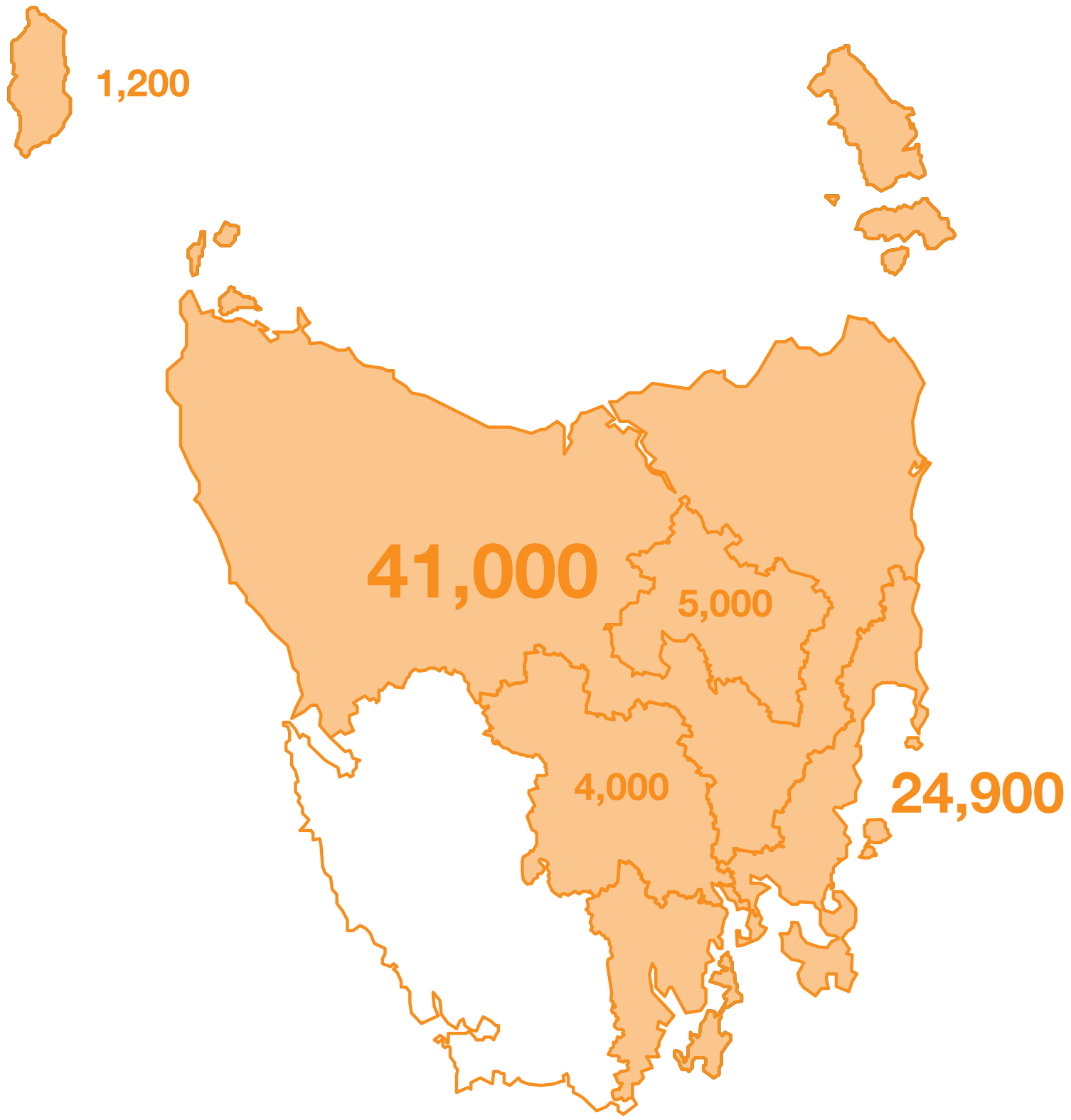
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2 YEAR TERM COMMENCING DECEMBER 1, 2023

Tenders close Thursday November 30, 2023 at 3.00pm

For terms and conditions and a tender form Highest or any tender not necessarily accepted

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Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

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About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

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Public Notices

Notice of meeting

CORANGAMITE SHIRE — love CORANGAMITE

The next meeting of Council will be held on:

Tuesday 28 November at 7 pm
Killara Centre, Manifold Street Camperdown

The meeting is open to the public, however, residents are encouraged to watch a livestream of the meeting on Council's Facebook page facebook.com/CorangamiteShire

The meeting will include an Open Forum, during which you may ask questions or make a statement. Questions and statements for the Open Forum by anyone not attending the meeting in person can be sent via email to governance@corangamite.vic.gov.au no later than 12 pm on Tuesday 28 November.

corangamite.vic.gov.au

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Opening Hours:
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Sat: 9am-12noon

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Churches

PORT CAMPBELL BAPTIST CHURCH
Every Sunday at 10.30am
All welcome
This week's speaker: James O'Brien
Enquiries: James O'Brien 0429 960 821

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WD NEWS PUBLICATIONS

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- Terang Express
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- Mortlake Dispatch

Big boost for cancer research

A cancer research grant is honouring the efforts of a Colac fundraising group, as it embarks on its second major fundraiser for the year.

Tomorrow is Daffodil Day, with members of the Cancer Council Victoria's Colac branch selling daffodil-themed items to raise money for cancer research and support programs.

The fundraiser comes after the group's Biggest Morning Tea event in May, which raised thousands of dollars for the Cancer Council.

That event was so successful, that the Cancer Council has named a research grant in honour of the Colac group.

The Colac Volunteer Group Research Award will help fund research like a project investigating a novel gene-editing approach for enhancing cell therapy in solid tumours, led by Professor Phillip Darcy at the University of Melbourne's Sir Peter MacCallum Department of Oncology.

Professor Darcy and Associate Professor Paul Bevis hope to improve the effectiveness of immunotherapies on solid cancers by using gene editing to overcome the environment in tumours which suppresses the immune system.

The results from this project have the potential to transform therapy for the treatment of solid cancers which have failed conventional treatments.

Meanwhile, Cancer Council Victoria Colac branch members will be out selling daffodil items, and people can also pick up items at Denise Duryea Hairdressing in Bromfield Street, Colac.

An average of 808 Colac Otway residents face a cancer diagnosis each year.

Cancer Council Victoria's head of fundraising Lyrian Fleming-Parsley said almost everyone would know someone dealing with cancer.

"Cancer takes so much - from all of us. It takes from our friends, neighbours, colleagues, and our family. By giving this Daffodil Day, we can help stop cancer from taking so much," she said.

"We can give for all the people who've been affected by a cancer diagnosis, whether that's you, or someone close to you. Giving, that's what Daffodil Day is all about."

All donations and funds raised through Daffodil Day will directly fund cancer research projects across Australia, helping save lives and bringing us closer to a cancer-free future.



BLOOMING: Denise Duryea is supporting Daffodil Day fundraising this year in her Colac hairdressing salon.

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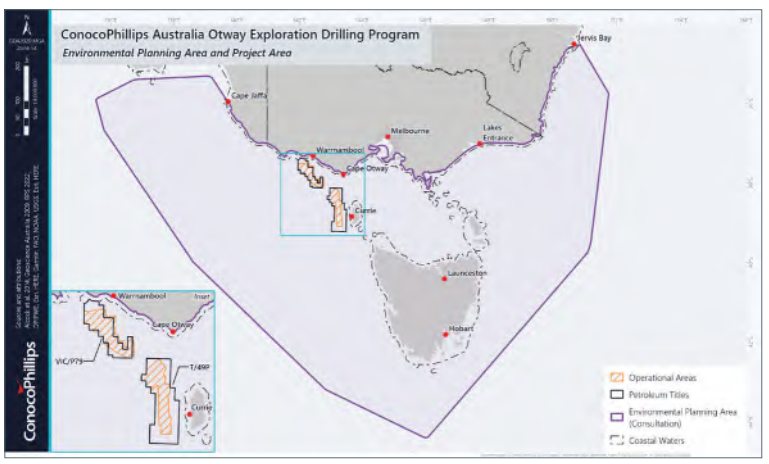
Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

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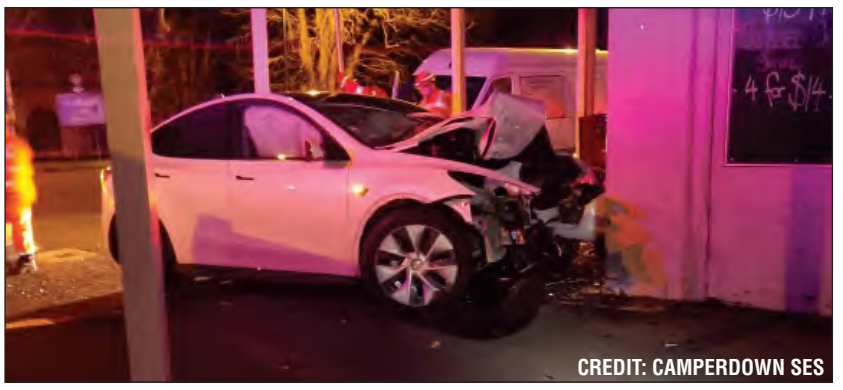
The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
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T: 07 3182 7122

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SMASH: A man in his 20s crashed his Tesla into a butcher's shop at Camperdown, causing damage to the front window and door.

Electric car smash a valuable lesson

BY GRETA LANNEN

A man was hospitalised after he crashed his Tesla into a Camperdown butcher's shop, giving emergency responders on-the-job training of isolating the power of a battery-powered car.

The driver and sole occupant in his 20s crashed into the building on the corner of Manifold and Leura streets just before 1.30am yesterday.

Emergency crews received reports that the motorist was trapped but he was able to extricate himself from the vehicle.

Camperdown SES, CFA crews from Camperdown, Cobden and Bostocks Creek CFA crews, and Warrnambool police were also on scene.

Camperdown SES unit controller Michael Carman said crews were on scene for about an hour and a half.

"It's broken the big front window and smashed our front door that you walk in," he said.

"Because it was a battery-powered vehicle we had to try and isolate the power source, it was a Tesla.



"That was our first experience with one so it was a big learning curve for us all. We were trying not to get ourselves electrocuted," Mr Carman said.

An Ambulance Victoria spokesperson said paramedics transported the man to South West Healthcare Warrnambool in a stable condition with an upper-body injury.

Family bids farewell to Colac

BY GRETA LANNEN

Colac's lake, gardens and community service groups are just some of the many things Pat and John Dunn will miss about Colac.

The Dunns will farewell the city after 48 years, which has seen them raise a family, work hard and contribute to their community.

Pat and John moved to Colac in 1975, with their six-week-old daughter Catherine, when John took up a position as a trade instructor at the then Technical School.

"I chose Colac because the school had a good vibe and because of its tree lined streets, green spaces and beautiful lake," John said.

Sons Lincoln and Warrick joined the family and the Dunns started to integrate into the community through their jobs, schools and involvement in community groups.

Pat said during the first year living in Colac, she would have walked back to Melbourne.

"However, at the end of 12 months when I knew my neighbours, when I could walk down the street and I knew the teller behind the counter in the bank and could go into the supermarket and the check-out person was familiar, we loved it and we stayed," she said.

"We chose Colac because it was such a green area, the lake was so beautiful, the parks were lovely."

Pat said it was a big transition coming from Melbourne and not knowing anybody in Colac, but as time went on, the pair got involved in different groups and schools and connected with other community members.

She worked in disability for 35 years including a period at Colanda which she said was challenging and rewarding.

Pat has also had various roles in Colac's Country Women's Association including committee members, secretary, treasurer and president, and committee member and secretary with Colac's Red Cross.

She said forming friendships and a sense of giving back were what she loved about being part of community groups.

"I am going to miss those but I'm still going to travel back for those meetings," she said.

As well as teaching, John was also involved service clubs and organisations like the SES and Rotary, a member of the Army Reserve, a facilitator and host for exchange students and the foundation Officer Commanding of the local Army Cadet Unit.

After teaching he became a counsellor and still has a position as a counsellor in the Scouts.

John said he felt privileged to be part of Colac and its community in many different ways.

"What I have come to realise lately (is) that I was gifted to be in so many positions where I have met so many people and been a part of their lives as well," he said.

Downsizing and moving closer to family is the reason behind the Dunns' move.



FAREWELL: Pat and John Dunn have reflected on their time living in Colac, after moving from Melbourne in 1975. The couple will be downsizing and moving closer to family.

"If I had a choice and I could move Colac with its lake to somewhere around the You Yangs we would still be there," John said.

"The gardens and lake are exquisite. To those that want to drain or put a road across the lake, I feel sorry for as they have no perception of nature's unique gifts."

Pat and John thanked the wonderful people they had met and shared special experiences with during their time in Colac.

"A deep appreciation of what we have in Colac in the way of community, our environment and to be mindful of what we do each day, in every little and big way, will make the foundation of what Colac, and we, will become tomorrow and all the tomorrows to come," John said.

Council investigates Bay site for housing

HOUSING for the FUTURE

CONTINUED FROM PAGE 1

"Council is also seeking funding from other levels of government to undertake the project, which would include investigating an alternative site and the cost to establish a new depot, undertaking environmental investigations such as potential contamination of the site, and then understanding how development for residential accommodation could occur."

Mr Seuren said local government was pushing for projects in the Colac Otway to be included in the Regional Housing Fund, which received a boost after the State Government pulled the pin on hosting the 2026 Commonwealth Games.

"Directly and through our partners we have highlighted opportunities in Colac and Apollo Bay and continue to work with the Victorian Government on affordable and social housing options," he said.

"We expect the State Government will look at government-owned and private land to identify all possible opportunities and we hope to see some of the Regional Housing Fund deliver projects in our towns."

Mr Straw said he also supported the Bay community's decision to lobby against the sale of the old kindergarten site on McLachlan Street.

Councillor Graham Costin submitted a notice of motion to rescind a resolution made at last month's council meeting to put the address on the market and the coastal community is petitioning against the sale led by the Apollo Bay Community Voice.



POSITIVE: Chris Straw, pictured right with Bob Knowles earlier this year at Apollo Bay's Nelson Street site, has welcomed a feasibility study at the council-owned depot for key worker housing opportunities.

Mr Straw said it was important to keep any land which could solve the housing crisis problem.

"From a Colac Otway point of view, they own very minimal land here in Apollo Bay, so they shouldn't be selling it off," he said.

"From memory the land is about 800 square metres and it's zoned in an area that can't be subdivided.

"It needs to either have a rezoning to allow a greater density on the site or people can look at other options like boarding houses.

"We need to find out what's highest and best use for it."

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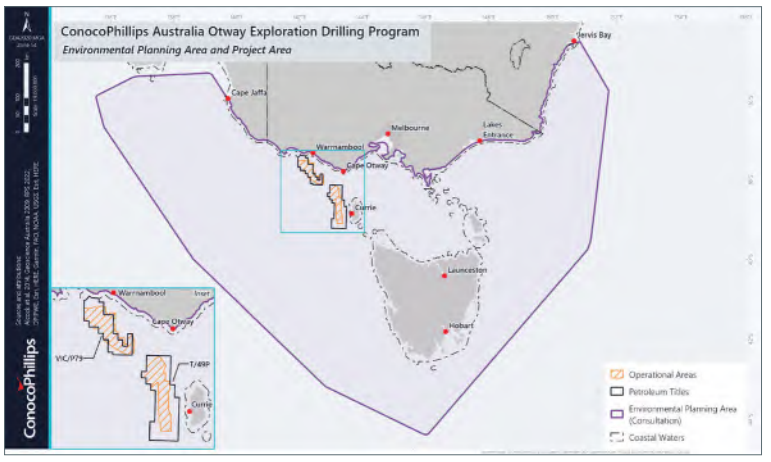
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Amali Kennedy, Samara Riley, Laurie Ryan and Shay-Lee Pyke



Barry Rayner and Brett Dickason



Lyn Crook, Amanda Pugh and Roseann Funston



Kathryn Johns, Sarah Brien, Rachel Wood and Daniel Vass



MILESTONE: Bhakti De Bon, Jan Healey, Laurie Ryan, Rachel Wood and Emma Cullen celebrate the Colac Otway L2P program's 10th birthday.

Mentors and drivers mark milestone

BY GRETA LANNEN

It doesn't matter where you go in your life, but what matters the most is who you have beside you along the way.

It's an important message, and one that Samara Riley says perfectly describes the Colac Otway TAC L2P Program, which has been operating for a decade.

The L2P program assists learner drivers between 16 and 21 who do not have access to a supervising driver or car to gain the driving experience required to apply for a probationary licence.

Samara was one of the first learner drivers to graduate from the program and said the 10-year milestone was a real credit to the community, but most importantly the program's mentors, including her mentor Laurie Ryan.

"This program not only provides a way, it also provides an unexpected friend," she said.

"Mentors donate their time and skills to ensure our young people have opportunities to succeed.

"Laurie (Ryan) helped me to gain further independence and this in turn assisted me to enhance my career.

"However for me, the greatest benefit has been the strong bond and long-lasting friendship we formed while connecting and sharing stories during our driving practice," Samara said.

Current program learner driver Shay-Lee Pyke said she greatly appreciated the L2P program.

"The structure of this program provides a great experience because you're learning how to drive, in a beautiful part of our country while growing a new friendship," she said.

The program is a partnership between local councils and community organisations, the Department of Transport and the Transport Accident Commission, delivered locally by Colac's Community Hub.

"The TAC L2P program, supported by the Department of Transport, our CHI team and our dedicated driver mentors, is a critical process for young and up and coming drivers to gain a practical understanding of our road rules while gaining on-road experience under the watchful eyes of their mentor," Colac Community Hub Inc board member George O'Dwyer said.



Jenny Grenfell and Arthur Hollis

"It is so important for our L2P participants to learn the right way to drive and do so with confidence, this not only ensures their safety on the roadways but also other road users.

"We look forward to another 10 years of support for the L2P Program from our wonderful service clubs, the many businesses and the Colac and surrounding communities that get behind this simple but effective program," he said.

L2P program co-ordinator Bhakti De Bon said the program had supported more than 140 learner drivers, successfully helping 80 learners attain their probationary licence.

"Road safety and good driving habits are something that the whole community benefits from and it's pleasing to see the results achieved by the Colac Otway L2P program to date," she said.

"Since gaining their P-plates, some of the participants have secured employment which may not have been possible if it were not for the program."

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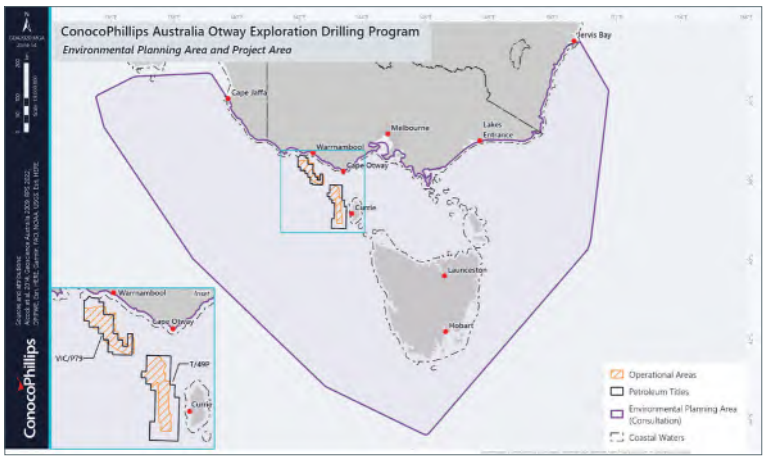
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T: 07 3182 7122

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Social housing plan for Colac

BY ALISON MARTIN

Colac leaders have welcomed the State Government's commitment to build at least 50 social housing dwellings in Colac, however views on the site chosen are divided.

Premier Dan Andrews announced on the weekend that a social housing development was planned for Pound Road, on land next to Colac Cemetery, and would be funded as part of the $1-billion Regional Housing Fund.

The fund was announced in July following the cancellation of the 2026 Commonwealth Games, and Colac Otway Shire Council has been advocating for the shire's share of social housing, however the announcement came as a surprise for the local community.

The amount of funding allocated to the Colac project and other details are yet to be revealed, however the Premier's office has confirmed "due diligence, feasibility and design work" for the development is set to start.

Member for Polwarth Richard Riordan said the government's commitment was "fantastic" but other land should be considered so the Pound Road site could be retained for Colac Secondary School to expand in the future.

Colac Otway Shire Mayor Cr Chris Potter was pleased with the announcement, explaining the Pound Road site was the council's preference, but he hopes further funding will be directed to Colac and Apollo Bay.

"We welcome the State Government's investment in public housing in Colac – it is something we have been lobbying hard for over the last two years and this Pound Road site was one we have been advocating for," Cr Potter said.

"This is some reward for persistence. We've known our case across Colac Otway was strong and officers and councillors have raised the need for housing at every opportunity. We've also been supported in our advocacy by our regional partners.

"We are focused on housing shortages right across the shire and will continue to push for more outcomes like this; we still have a long way to go to meet demand for affordable and key worker housing.

"We would hope this is only the beginning for the shire with clear needs in Apollo Bay also."

Colac Otway chief executive Anne Howard said council had been in regular communication with Homes Victoria over the past few years about opportunities for social and affordable housing in the shire, particularly in Colac and Apollo Bay.

"Whilst we weren't aware that an announcement was ready to be made, we were anticipating a favourable outcome following the release of Victoria's Housing Statement," Ms Howard said.

"Council is supportive of a development of this nature, which is aligned to a key council priority of addressing the housing shortage in the shire. Council's Social Housing Plan 2021 identified that there was a need for an additional 344 affordable dwellings across the shire. This is a good step in addressing the housing needs in Colac.

"We're yet to understand the design and consultation process, however we will take a very close interest in the design and provide input where we can with a view to getting a great long-term outcome for our community. Council will work with the Victorian Government to ensure the final design is appropriate for the site."

In contrast, Mr Riordan said he believed the Pound Road site "doesn't make sense".



PHOTO SUPPLIED

COLAC SITE: Crown land near Colac Cemetery is earmarked for a social housing development.

Mr Riordan, the Opposition's housing spokesperson, said he was hopeful that the lack of information was positive for Colac because it meant there was time for the community to activate during the feasibility stage.

"It's a fantastic commitment (50 social housing dwellings for Colac) but there should be two houses here, two houses there," he said.

"If we'd run out of land then perhaps you would use that site, but it doesn't make sense.

"There's certainly still parcels of vacant land and reinvest where possible; I'm not entirely clear what's still government owned in the Queen Street and Bilson Street areas but there are certainly some houses beyond their usefulness (that could be rebuilt).

"There's a lot of subdividing going on and the government could purchase blocks.

"But just not that parcel of land; it's an education precinct and it has a better use for our community."

Mr Riordan, who had previously advocated for the Colac Specialist School to be relocated to the Pound Road site because of its proximity to CSC, the library, swimming pool and other sports facilities, said the land needed to be retained for CSC's expansion as Colac grew.

"There's nowhere else for the school to go."

Ms Howard said the council was "unaware of any need for Colac Secondary College to plan for expansion, but it is a matter better addressed by the Victorian Government".



230519GL01

OPEN TODAY: Colac's ANZ branch will re-open today after a third party assessed the branch on Monday, after works to repair water damage.

Colac bank branch re-opening today

BY GRETA LANNEN

Colac's ANZ branch will re-open today after receiving a third-party assessment this week.

It comes more than four months after the Murray Street branch closed due to extreme water damage.

Monday's assessment analysed and confirmed the repairs the branch had undergone and aimed to minimise the chance of any further disruption to banking services in the future.

In May, ANZ district manager Renee Stewart marked a July reopening date for the branch, but it has remained closed until today at 9.30am.

"We are excited to resume full-suite banking services in Colac, and welcome customers back to the branch," an ANZ spokesperson said.

"We appreciate the continued support and patience of our ANZ customers in the Colac community."

The spokesperson did not confirm what had caused the water damage and why there had been a delay in reopening the branch.

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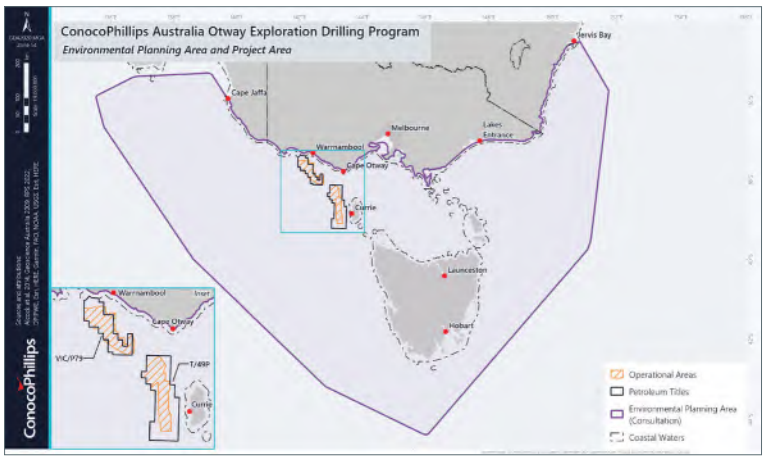
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COLAC Herald

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classifieds@colacherald.com

Office hours

Monday to Thursday 8:30am to 5:00pm
Friday 8:30am to 4pm

Deadlines

Monday edition

Word adverts: 4pm Friday
Display adverts: 3pm Friday or 11am if proof required
Death & Funeral notices: 11.30am Sunday

Wednesday edition

Word adverts: 12 noon Tuesday
Display adverts: 12 noon Tuesday or 9am if proof required
Death & Funeral notices: 11.30am Tuesday

Friday edition

Word adverts: 12 noon Thursday
Display adverts: 12 noon Thursday or 9am if proof required
Death & Funeral notices: 11.30am Thursday

Advertisement proofs

Any two or three column advertisements requiring proofs must be submitted 3 hours prior to deadline. Proofs are **not** provided for single column and line advertisements.

Advertising conditions

Advertiser's full name and address must be supplied even if it is not included in the advertisement.

Birth notices require the signatures of both parents if both are mentioned in the advert before being accepted. These notices must be placed in person.

Wedding and Engagement notices require the signatures of both parties before being accepted.

Death notices will only be published after family notices from the funeral director or the immediate family. Where authorisation cannot be verified, notices will be held over.

Advertising cats and dogs for sale. Victorian Domestic Animals Act 1994 states all dogs and cats be microchipped before being given away or sold. Each animal advertised must contain a unique microchip number and also a source number of the seller from the Pet Exchange Register or the business registered number and council from where it is registered.

Motors advertisers. Private vendors of motor cars advertised for sale must include the price of the vehicle and either a registration number of the vehicle (if registered) or the engine number (if unregistered).

Found advertisements are published free. Simply provide us with the details for publishing.

Advertisements must be pre-paid unless the client has an existing account with the Colac Herald. Accounts must be paid for on the due date shown on the account.

Advertisers responsibility

Every business must honour its obligations under the Australian Consumer Law. Businesses must not make false, misleading or deceptive claims about a product or service.

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Members of

The Victorian Country Press Association Ltd

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BIRTHS

HALLYBURTON (Anderson) -
Bonnie and Chris are thrilled to announce the birth of
LIV MAREE
on November 19, 2023, weighing 8lb 15oz.
Very excited brother and sister Mac and Ava and grandparents Heather and Bruce and Sally and Neville along with all their families are rapt to welcome our little Liv.

DEATHS

RICHES (nee McMahon) -
Denise Margaret.
10.2.1950 – 18.11.2023.
Passed away peacefully, aged 73 years.
Dearly beloved wife of Noel (dec).
Much loved Mother of Cameron (dec), Stefanie, Jane and Adam.
Cherished Nan of Jaylan.
Love does not end.

RICHES -
Denise.
18.11.2023.
Your battle is over Denise.
Now resting peacefully with Noel and Cameron.
Loved sister-in-law of Norm (dec) and Marj.
Loved aunty of Sandra and Ken, Vicki, Carolyn and Cliff and Kelman (dec).

RICHES -
Denise.
Loved niece of Jack and Eily Mahoney (both dec).
Loved and frustrating cousin of Brian (dec) and Lesley (WA), Graham and Maureen, Pam and Terry Mullane, Helen and Brian Benson, Kevin (dec), Leanne and David Best (WA), John and Sharon, Peter, David and Jill.
Many memories.
Now at Peace.

FUNERALS

RICHES –
Requiem Mass for the repose of the soul of Mrs Denise Margaret Riches will be offered at St. Mary's Catholic Church, Gellibrand Street, Colac on Tuesday, November 28, 2023 commencing at 11 am.
The funeral will leave the Church at the conclusion of the service for the Colac Lawn Cemetery.
Please see www.quinnfunerals.com.au for live-streaming details.

QUINN FUNERALS
AT WESLEY PLACE
COLAC 5231 2052
www.quinnfunerals.com.au

RODGERS -
The funeral of Mr Stanley Rath Rodgers will be held at St. Mary's Catholic Church, Gellibrand Street, Colac (TOMORROW) Thursday, November 23, 2023 with Prayers commencing at 10.30 am.
In accordance with Stan's wishes a private cremation will be held.
Please see www.quinnfunerals.com.au for live streaming details.

QUINN FUNERALS
AT WESLEY PLACE
COLAC 5231 2052
www.quinnfunerals.com.au

IN MEMORIAM

BOULTON -
Jodie Nicole.
21.11.2022.
One year has passed.
A silent thought,
A single tear.
Love you heaps.
- Mum.

FOR SALE

BALLARAT CHOOKS - Colac, Winchelsea and Inverleigh areas. Delivery date: November 29. Pullets/ chooks. Hyline Brown. Sexed and vaccinated. Please phone or text Kelvin on 0400 559 559.

MEETINGS

Apex Pre-School
AGM
We are delighted to welcome all existing and new parents and guardians to our 2023/2024 Annual General Meeting.
Date: Thursday, November 23
Location: Babil
Finger food provided
We look forward to seeing you all there

WANTED

MILK VATS
ANY reasonable condition considered, paying between $150 to $1000. Phone Telly Katsaros 0427 368 261.

GARAGE SALES

THURSDAY, November 23 and Friday, November 24, 4 - 7.30pm at 129 Aireys St, Elliminyt. Everything from fence posts to formal wear.

MEETINGS

COLAC AREA HEALTH
ANNUAL GENERAL MEETING
COLAC AREA Health

Notice is hereby given that the 2023 Annual General Meeting
will be held at
Colac Area Health
Conference Room,
2-28 Connor Street, Colac
on
Wednesday 6 December at 2pm

Members of the public are invited to attend.
Limited seating.
RSVP by Friday, 1 December to communications@cah.vic.gov.au

A recording will be available following the meeting on the Colac Area Health website

Fiona Brew, Chief Executive

"Quality Care Close to Home".

MEETINGS

Colac Motorcycle Club Inc
AGM
Wednesday, December 6
6.00pm
at Culture Cafe

COLAC & DISTRICT FOOTBALL UMPIRES ASSOCIATION
AGM
WEDNESDAY, NOVEMBER 29
7.30pm
at LAKE OVAL ROOMS
ALL WELCOME
Enquiries R. Adams 0410 407 032

PUBLIC NOTICE

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

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Typsy use helps out

THE Victoria Tourism Industry Council and state government recently announced a cost free option for local tourism and hospitality businesses to manage their staff training using Typsy.

Typsy is an internationally recognised Netflix style micro-credential learning system which uses short videos to deliver skills based training to the tourism hospitality and events industry.

Once a business is connected staff can be invited into the program to learn together with their colleagues via a website or mobile app.

Founded in Melbourne the Typsy platform is now used in more than 100 countries and offers access to over 1000 videos and short courses for staff who earn badges and certificates when completed.

"The announcement is well timed to support businesses at a time of year when they are employing new staff for the summer season," according to Port Campbell Visitor Information Centre co-ordinator Mark Cuthell.

"I am really pleased that local students and residents, that might be starting their first job or a new job this summer will be provided with tools and support to assist them to feel more comfortable and excel in their roles.

"We look forward to assisting local businesses to implement the program."

A successful pilot trial in Metropolitan Melbourne lead to the recent announcement which delivers the Typsy platform free of charge to tourism and hospitality businesses in regional Victoria.

Cars stolen in Simpson

RESIDENTS have been reminded to be extra vigilant with a series of thefts and burglaries in the area.

Cobden Police Sergeant Craig Jenkins said two vehicles were reported stolen in the Simpson area over five days.

He said a Red Holden Utility was reported stolen during the early hours of Thursday, September 21 and a Prado was reported stolen in the early hours of Sunday, September 24.

Sgt Jenkins said the Red Holden Utility had been recovered and the alleged offender remanded on Saturday.

He said the Prado was still yet to be recovered.

Sgt Jenkins said the residents had "detected unusual behaviour and movement" in the area.

"I'd like to remind everyone to be vigilant," he said.

"It means talking to your neighbours, promote community safety and encouraging the use of security cameras to deter and detect offending."

Sgt Jenkins said there had also been a number of reports of thefts and burglaries in the area in recent weeks.

"There are obviously some undesirable people in the area at the moment," he said.

"Police are making a conscious effort to recover outstanding items and apprehend the offenders."

Sgt Jenkins encouraged community members to contact Crime Stoppers on 1800 333 000 or Cobden Police on 5595 1550 if they have information about a crime or 000 if suspiscious or illegal behaviour is observed.

Residents were also encouraged to call into the Cobden Police station or Hewitt and Whitty Cobden to pick up a 'rural farm crime sign' for their property.



Keep an eye out: Cobden Police Senior Constable Ash Pitt encourages residents to be on the lookout for farm crime in the area. 2023D

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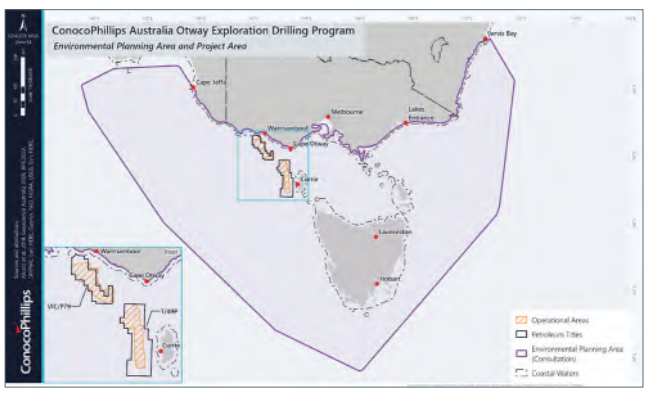
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Voice referendum date set

PRIME Minister Anthony Albanese has announced the 2023 Australian Indigenous Voice Referendum will be held on Saturday, October 14.

The referendum will ask Australians:

A Proposed Law: to alter the Constitution to recognise the First Peoples of Australia by establishing an Aboriginal and Torres Strait Islander Voice. Do you approve this proposed alteration?

If the referendum is successful, the proposed alteration to the constitution will involve one recognition and three ensuing provisions.

In recognition of Aboriginal and Torres Strait Islander peoples as the First Peoples of Australia:

i. There shall be a body, to be called the Aboriginal and Torres Strait Islander Voice;

ii. The Aboriginal and Torres Strait Islander Voice may make representations to the Parliament and the Executive Government of the Commonwealth on matters relating to Aboriginal and Torres Strait Islander peoples; and

iii. The Parliament shall, subject to this Constitution, have power to make laws with respect to matters relating to the Aboriginal and Torres Strait Islander Voice, including its composition, functions, powers and procedures.

Mr Albanese said the proposed alteration was "pretty clear and pretty straightforward".

"Recognition. Listening to advice. Parliament continuing as decision-maker," he said.

"That is the clear, positive and practical request from Indigenous Australians.

"That is the hand out asking us, non-Indigenous Australia, to just grasp that hand of friendship.

"And that's what we can vote Yes for."

Mr Albanese said it was time to write the next chapter in Australia's history, stating the nation was at its best when willing to be progressive.

"In the history of our great nation, the wonderful acts of national progress and the great advances in fairness have always required hard work," he said.

"There were arguments here, when South Australia, something they are very proud of and should be, led the world in giving women the right to vote.

"There were arguments made against Federation and the minimum wage, Medicare and multiculturalism. And before the 1967 referendum, before Vincent Lingiari, before Mabo, before the Apology.

"But the great story of our country, through the generations, is that Australians come together to answer these calls for change. We rise to the moment."

Volunteer awards open now for noms'



Open now: Wannon MP Dan Tehan is calling for nominations for this year's Sport and Volunteer Awards. 2023E

MEMBER for Wannon Dan Tehan MP is calling for nominations for this year's Sport and Volunteer Awards.

The Sport and Volunteer Awards recognise our unsung heroes – volunteers who inspire their peers through their generosity of spirit, patience, willingness and have demonstrated passion and made a significant contribution towards their community.

"The Wannon Sport and Volunteer Awards are a highlight on my calendar as I take the opportunity to acknowledge and celebrate the valuable contributions so many local people make to the Wannon community," Mr Tehan said.

The Sport Awards recognise and highlight outstanding sporting performances, achievements, and contributions made by community members.

Nominators for the Sports Awards are invited to nominate an individual or team in the following categories:

- Primary School - Individual or Team Achievement;
- Secondary School - Individual or Team Achievement;
- Open - Individual or Team Achievement; and
- Member of Parliament.

The Volunteer Awards recognise and celebrate individual and group volunteers who had made outstanding contributions and go above and beyond for their local communities.

Nominators for the Volunteer Awards are invited to nominate an individual or group in the following categories:

- Youth Volunteer;
- Emergency Management;
- Group;
- Inspiring Individual; and
- Member of Parliament Award.

Nomination forms are available at www.dantehan.com.au or by calling 1300 131 692.

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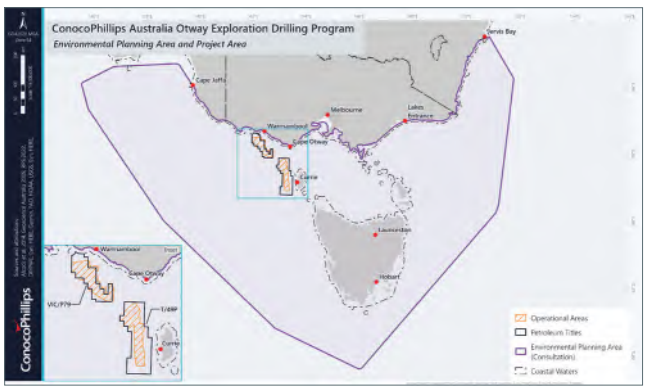
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Open day opens up career opportunities

AROUND 70 female secondary students from schools across Timboon, Warrnambool and Mortlake got a unique 'up-close' look at the careers available in the energy industry at Lochard Energy's Student Open Day.

The open day, held earlier this month, was organised in partnership with the Neil Porter Legacy (NPL) and South West TAFE to provide the students with exposure to future career options they students might have not yet considered.

"The NPL believes students need to get out of the classroom and experience different workplaces that match their interests," NPL representative Matt Porter said.

"They must talk to employers and employees, see workplaces, ask questions and understand how their classroom learning can be used in real-life situations," he said.

"We can't thank Lochard Energy enough for opening their doors and giving these female students this opportunity.

"These young ladies will see women working at all levels in this industry and they'll see what's possible and be able to make informed career-based decisions."

The open day included a panel discussion with key experts from Lochard, industry workshops, a tour of the site and a barbecue lunch where students could mix with Lochard employees, ask questions and get a better understanding of the industry.

"There are so many different roles in this industry and the work is interesting, varied and evolving as we look to support the transition to renewables, so it makes a really great career choice for anyone but particularly for those in the South-west region with the Iona Gas Storage Facility right here in Port Campbell," Lochard Energy chief executive officer Anthony Fowler said.

"We have some exceptionally skilled and experienced women in management and technical roles at Lochard but it's no secret that historically there has been fewer women in this industry and we really want to encourage more females to consider it as a career option."



Career options: A group of Timboon P-12 School female students took part in an open day at Lochard Energy on Monday.
2023E

Fancy a movie night fundraiser?

IF your community group is looking for a fun way to raise funds, entertain the kids, or just have a good night out, Corangamite Shire Council's mobile cinema could be just the ticket.

Council's acting co-ordinator wellbeing economy Tammy Young said the mobile cinema was available from November 2023 until March 2024.

"A movie night is a great way to build social connections in farming communities that don't come together that often," she said.

"Many groups have used screenings to raise funds for their sporting club, hall improvements, charity and other causes."

Ms Young said community groups were welcome to apply.

"There are limited screenings available and community groups will need to purchase the DVD they are showing," she said.

"Council can arrange the booking of the film on behalf of your community group.

"In the past year various groups have screened kids' movies including 'Sing 2', 'Frozen 2', 'Peter Rabbit' and 'Elvis'."

In collaboration with the Corangamite Film Society, council can arrange a team of volunteers to take the mobile cinema equipment to your venue and show the movie of your choice.

Ms Young said screenings were subject to the availability of volunteers with council arranging the booking on the behalf of community groups

"Film distributors charge a small fee for the screening rights, which ranges between $150 and $350," she said.

"Each expression of interest received will be assessed and we expect about 10 screenings will be held during the scheduled months."

If you would like to screen a movie, download an expression of interest form from www.corangamite.vic.gov.au/Mobile-cinema or contact the council on 5593 7100 for a hard copy.

Expressions of interest close on Friday, October 20.

For more information, please call Ms Young on 5593 7100.



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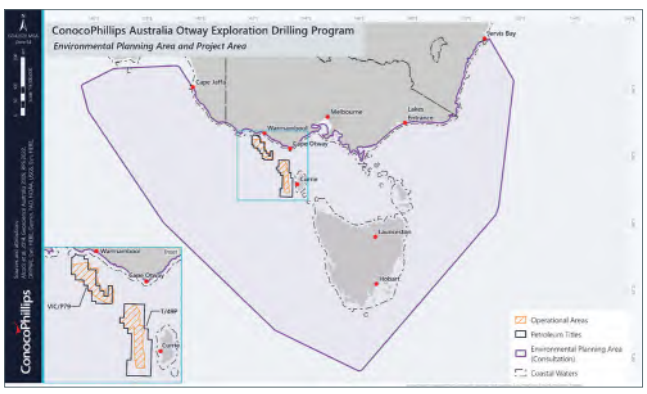
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Lap the Map for diabetes

SIMPSON Lions Club is getting behind a nation-wide Lions initiative, and the community can get involved to.

The club is inviting the wider community to join them for a walk around the Simpson Dam to raise awareness about diabetes.

Club president Russ Davis said on Sunday, September 10 at 10.30am the club will be doing a few laps of the dams.

He invited the community to come along to the day.

"It's a great cause and good excuse to get out in the Spring air," Mr Davis said.

More than 1.3 million Australians are currently living with diabetes and Lions volunteers across the country are on a mission to do what they can to reduce the prevalence of diabetes and improve the quality of life for those diagnosed.

In the leadup to World Diabetes Day on November 14, Lions Clubs across Australia will be hosting Lions Lap the Map walks and events in their local communities.

The community walks aim to raise awareness of diabetes and rally communities, healthcare professions, and individuals alike to work towards a healthier and more vibrant future for all Australians.

With the help of communities across Australia, Lions Australia aims to have a combined distance travelled which will exceed Australia's circumference (25,760 kms) by World Diabetes Day.

Lions national diabetes co-ordinator Pat Mills said diabetes is a key focus for Lions and the organisation is focussed on doing what it can to help reduce the impact of the disease in the community.

"Across Australia 1.3 million people have been diagnosed with diabetes and 283 people are diagnosed every day," she said.

"The disease can lead to serious health issues affecting the heart and blood vessels, eyes, kidneys, nerves and teeth.

"In most high-income countries, diabetes is a leading cause of cardiovascular disease, blindness, kidney failure and lower limb amputation.

"It's expected to affect 629 million adults by 2045."

Ms Mills said early diagnosis, optimal treatment and effective ongoing support and management reduce the risk of diabetes-related complications.

She said in recent years Lions Clubs across Australia have been focused on raising awareness and funds to support more vital research into the diagnoses and treatment.

"Our Lions Lap the Map family friendly walks and campaigns in the community encourage people to get outside and have a walk to promote healthy lifestyle and raise awareness of the diabetes epidemic in Australia," Ms Mills said.

"From events in shopping centres and gyms, to walks in parks with healthy food, diabetes screenings for attendees and informative health professionals there's a range of different types of events help as part of the Lap the Map campaign.

"We encourage people to keep an eye out and if your local Lions Club is having an event consider going along.

"They are usually very informative and a great day out for the entire family."



Works continue: The 12 Apostles Trail is nearing completion with the final lot of works in progress. 2023D

Final stage for trail

THE Twelve Apostles Trail is in the final stage of works.

In recent weeks contractors have completed a number of components of the project including:

- Construction of Campbells Creek bridge footings;
- Kerb and channel poured on Great Ocean Road, east of Campbells Creek bridge;
- Started fencing works on east side of Campbells Creek bridge, with holes cut for fencing;
- Continued path construction and fencing on the east of the Great Ocean Road lookout;
- Wannon Water sewer pipeline completed and tested; and
- Seating installed at lookout carpark.

The final project pieces to be completed are:

- Offisite fabrication of cantilever boardwalk for north of the lookout;
- Landscaping at Great Ocean Road lookout car park and Desailly Street traffic island;
- Continue path construction works between Great Ocean Road lookout and Campbells Creek;
- Complete underground drain construction near bus shelter;
- Campbells Creek bridge to be erected;
- Finalise shop drawings for boardwalks opposite Port Campbell-Curdievale Road and on Great Ocean Road between cutting and Campbells Creek;
- Drainage improvement works on North South Road; and
- Replace missing trail related road signs.

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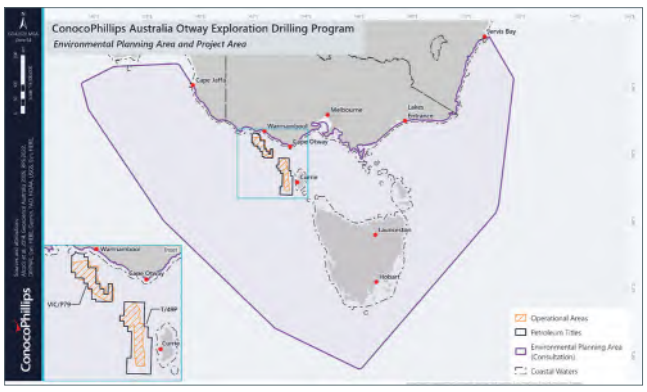
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Ready, Pet, Go keeps them safe in a crisis

Duncan Abey

Keeping your companion animals safe during an emergency is now as easy as Ready Pet Go.

Launching on Tuesday, and developed by RSPCA Tasmania in the wake of the Dunalley bushfires and the 2016 floods, the new resource provides pet owners with a three-step process to keep their moggie and pooch safe.

RSPCA Tasmania's Kerri Walsh said Ready Pet Go's compact brochure, poster, and QR-coded bumper sticker were all designed to help owners develop a plan well ahead of time.

Ms Walsh said emergencies often caught people off guard, triggering panic.

The Ready Pet Go resource provided advice and step-by-step guides to ensure people felt comfortable evacuating with their pets, Ms Walsh said.

"Ready" highlighted the importance of assembling of vital documents, and of storing a week's worth of each pet's medication.

"Pet" focused on gathering supplies for each animal, including transportation containers, comfort items, food, and toileting necessities. Finally, "Go" aimed to equip owners with tools to stay up to date in emergency situations, and to make informed decisions including locating the nearest evacuation centre.

Ready Pet Go was developed with support from the National Partnership Agreement on Disaster Risk Reduction, and in collaboration with the SES and local government councils in Tasmania.

Kingborough Deputy Mayor Clare Glade-Wright backed the Ready Pet Go program for her municipality.

"Kingborough residents are passionate pet owners, so this is an important campaign which guides people through the processes of planning for an emergency with their pets," she said.

"With just under 6000 dogs registered in Kingborough and 24 per cent of households owning cats, planning for how you are going to transport, feed, and look after your pet in an emergency is extremely important".

Ready Pet Go brochures and bumper stickers are available from rspcatatas.org.au, or from any of Tasmania's 29 councils.



SES Regional Emergency Management Co-ordinator Emma Gardner, Community Resilience Officer Milly Burgess, with Fox, and RSPCA Marketing and Relations Manager Kerri Walsh. Picture: Chris Kid

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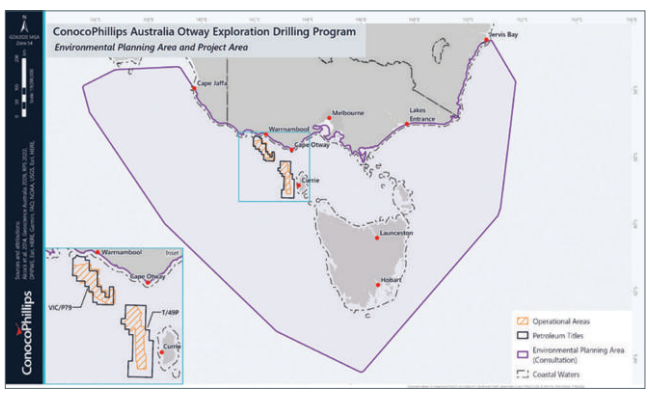
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Firm's future hits brick wall

Multi-Res collapse 'forces' company's sale

Katie Hall

A northern construction business has been put on the market after being caught in the fallout of a failed Hobart builder that owes its creditors millions – with the company claiming they're almost $400k out of pocket.

Prospect Vale-based Energy Street Pty Ltd entered external administration last week, with David Mansfield and Travis Anderson appointed joint administrators on August 29.

The company, which is headed by directors Rodney Patterson and Wayne Mitchell, had recently taken a financial hit after the May liquidation of Hobart-based Multi-Res Builders Pty Ltd.

According to a report to creditors authored by its liquidator, David Levi, Multi-Res' proof of debt amount to Energy Street sits at $251,289 – but Mr Mitchell says they are owed more for works in progress that took the amount closer to $400k.

A Multi-Res representative denied the claim that Energy Street was owed more.



Wayne Mitchell

The embattled company's total estimated liabilities sit at more than $6.219 million, according to extracts from Multi-Res records.

Mr Anderson said the first meeting of creditors will be held this Friday, but that it would be "business as usual" for Energy Street, who will continue operating as normal.

"We are looking to sell the business ... We are currently running a sale process, and are looking for a new owner of the business," Mr Anderson said.

He said the business employed 13 staff but had a "significant number" of subcontractors who were "heavily reliant" on the business, and that a "pretty urgent review" was underway.

A rise in material costs and the current "inflammatory environment" of the building industry was also a contributing factor in the company's administration, Mr Anderson said.

Speaking to the Mercury, Mr Mitchell said it was "unfortunate" their business had "suffered" because of the collapse of Multi-Res.

He agreed that while costs including building materials and labour had contributed to their situation, he said Multi-Res "is our main reason why our business is in the position it is today".

He said expressions of interest in the business were open, and that all offers would be considered.

"We are looking for a fairly quick turnaround, especially for our business clients and more so for our staff, to make sure we have a business to continue – and all signs point to [that] we will," he said.

Mr Mitchell said Mr Patterson would likely exit the business in the next three weeks and it was their priority to find a viable option to ensure the continuation of the business.

New $45.5m UTAS building a glimpse into the future

Timber the star of build

Alex Treacy

With 32.5 per cent less embodied carbon, a "first of its kind" heated blue gum floor, and extensive use of Tasmanian oak, the state's local timber industry is holding up the University of Tasmania's newest building as an exemplar for the future.

Industry heads were taken on a tour of the newly completed $45.5m River's Edge building at the university's Inveresk campus, home to Humanities, Social Sciences, Law, Education and Business, on Friday.

The building incorporates an extensive range of Tasmanian timber products including veneer panels, timber battens, solid flooring, wall and ceiling linings, furniture, kitchen joinery, acoustic panels, and a cross-laminated timber staircase, all manufactured locally from native and plantation timbers, particularly Tasmanian oak.

The extensive use of wood plus other green innovations, including recycled concrete and pilings made from repurposed steel gas pipelines, has resulted in 32.5 per cent less embodied carbon – carbon emitted during a building's construction.



Inside the University of Tasmania's new River's Edge building. Picture: UTAS

Significantly, the design and construction of the building revealed a groundbreaking development in the use of native timber: that Tasmanian blue gum was suitable for use in heated floors.

"We know timber is not the biggest fan of being heated and changed with moisture," said Dr Louise Wallis of The Centre for Sustainable Architecture with Wood.

However, a slab constructed beside the building to test a "whole heap of different species, with the heating cranked up for some time," revealed blue gum was suitable for this type of application, once glued to a thin plywood board to ensure its stability.

"This was the first time [blue gum] has been put in a commercial environment where it's on an underfloor heated slab," Dr Wallis said.

"It's quite likely this product will be able to be used across the rest of Australia. This building is now the experiment giving other people the confidence to do this."

Only one other Australian supplier is producing timber for heated floors with the others all manufactured in China.

Tasmanian Timber chairman Shawn Britton, the managing director of Britton Timbers, which supplied the oak for River's Edge, said large-scale timber products are growing in popularity.



Professor Dom Geraghty.

"More architects and designers are looking for solutions that have carbon benefits. Timber is the obvious choice not only for carbon storage, but also for the raw beauty and functionality," he said.

Mr Britton nominated two main "threats" to Tasmania's timber industry: outbidding by mainland producers, particularly in Victoria, and undercutting by cheap imports.

"Most people in Tasmania's industry want to see processing of our products into value-added products on the island," he said.

Mr Britton said demand was "strong" and it was up to producers and regulators to ensure consistency of supply.

Rapist's sentence review

Amber Wilson

A repeat rapist and violent recidivist criminal – and one of the few men in Tasmania deemed dangerous enough to be incarcerated for life – is inching closer to the possibility of freedom.

Ian John Brumby, aged in his mid-60s, appeared in the Supreme Court of Tasmania on Monday via video link from the Ron Barwick medium security prison.

Brumby was jailed indefinitely 20 years ago under Tasmania's Dangerous Criminals legislation, when he was sentenced for stabbing a man's throat, slicing halfway through his windpipe, in an unprovoked New Year's Eve attack.

It came after a criminal history described by one judge as "appalling", which included aggravated rape and the fracturing of a woman's skull.

Earlier this year, the Supreme Court heard Brumby's Dangerous Criminal declaration would be reviewed.

The move has come due to changes to the legislation passed in 2021 that mean a person's declaration must be reviewed every three years.

On Monday, Justice Gregory Geason heard the report was not yet complete – adjourning the matter until October 19.

Keeping Children Safe

"It is only by working together with a shared sense of purpose, that we will make Tasmania a safer place for all."

Premier Jeremy Rockliff

The Report of the Commission of Inquiry into the Tasmanian Government's Responses to Child Sexual Abuse in Institutional Settings will be tabled and made public at Parliament House in Hobart at 11.30am on 26 September 2023. Individuals who have been affected by this issue are welcome to attend (please arrive from 10:30am to allow time for entry).

Visit www.keepingchildrensafe.tas.gov.au or call 1800 093 758 Monday-Friday 9am-5pm for more information, and advice on support services available.

www.keepingchildrensafe.tas.gov.au

Tasmanian Government

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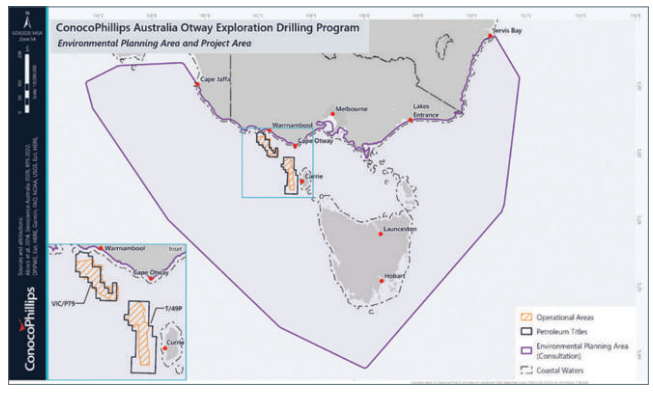
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Watt feels holiday heat

Brutal fire season expected

Eli Green and Eleanor Campbell



Australia could experience a torrid bushfire season with El Nino bringing extreme heat and drier conditions. Picture: Morten Boe

Emergency Management Minister Murray Watt hasn't ruled out the prospect of taking a holiday during what's been forecast as the most brutal bushfire season since the 2019-2020 Black Summer crisis.

The minister took questions ahead of a historic two-day summit in Canberra, where more than 200 organisations will gather to discuss what more can be done to prepare for the oncoming heat.

He said he intended to take one week off in December that "will depend on the disaster situations that we face".

"I can assure you, since I've been the minister, I have not had a whole lot of holidays and every time I have I've been on the phone to my staff," he told media.

Former prime minister Scott Morrison weathered a fierce backlash two years ago when he flew to Hawaii for a family vacation while the worst bushfires in Australia's history burned across the country.

He was heavily criticised by then opposition leader Anthony Albanese for a "lack of transparency" about the timing and location of the trip, which Mr Morrison later apologised for.

Mr Albanese and Senator Watt will join crisis management, response and recovery specialists this week to discuss how to prepare for the high-risk season.

Mr Albanese said he was concerned about the "worrying conditions" and wanted to avoid clashes with state governments this summer.

He cited the "great deal of disagreement" between Mr Morrison and then NSW premier Gladys Berejiklian, who publicly clashed over a lack of consultation on the deployment of Australian Defence Force personnel. "This week is all about preparedness, we are bringing together all the states and territories," Mr Albanese said on Monday.

His concerns came after the Bureau of Meteorology confirmed the country would be experiencing an El Nino weather event for the next year, bringing an increased risk of extreme heat as well as a worsening bushfire outlook in southeastern Australia. National Emergency Management Agency co-ordinator-general Brendan Moon said people should also prepare for the possibility of cyclones and floods.

"The strategy for this week is to look at national arrangements to actually deal with those compounding and cascading events that may impact the nation during this high-risk weather season," Mr Moon said.

Squabble over new jobs goal

A stoush looms over the federal government's new jobs goal as bosses and unions clash on whether the change will make the Reserve Bank's fight against inflation more difficult.

On Monday, the government released its jobs strategy, which included a broadened union-backed definition of 'full employment' to 'everyone who wants a job can get one without searching for too long'.

The government's new definition draws a distinction with the RBA's unemployment forecasts, which are based on the non-accelerating inflation rate of unemployment (NAIRU) – the lowest level of unemployment before the economy starts generating inflation and sharp wages growth.

The RBA forecasts the NAIRU is between 4-4.5 per cent, which means the current 3.7 per cent unemployment rate is unsustainably low.

In June, then-RBA deputy governor Michele Bullock said that unemployment was forecast to rise to 4.5 per cent as the economy slowed as a result of its aggressive rate hikes, which she said would be "closer to a sustainable balance point".

But employers criticised the change, claiming it was at odds with the RBA's fight against inflation.

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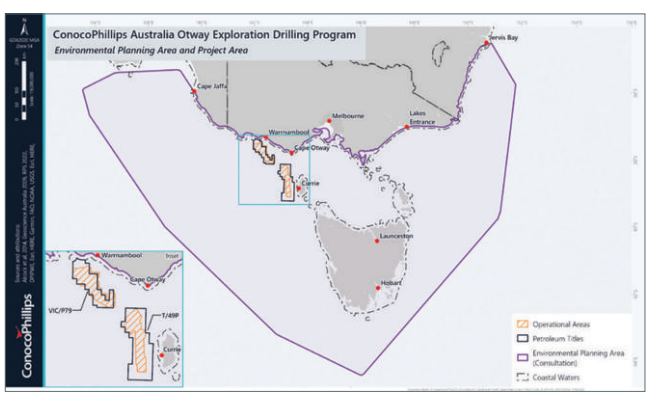
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Federal Court of Australia Count Financial Limited Class Action

The Federal Court of Australia has ordered this notice be published. A class action has been commenced in the Federal Court of Australia by R and N Hunter Pty Ltd (ACN 105 163 522) atf the Hunter Family Super Fund (the **Applicant**) against Count Financial Limited (**Count**). You should read this notice carefully as it may affect your rights.

The Applicant alleges that some of Count's financial advisers breached the law by failing to comply with duties to act in their clients' best interests and failing to give priority to their clients' interests. The Applicant alleges that Count as Licensee is liable for the conduct of its financial advisers and that Count itself breached the law by both failing to take reasonable steps to ensure that its financial advisers complied with those duties and by engaging in misleading or deceptive conduct (or conduct that was likely to mislead or deceive). The Applicant alleges that Count and its financial advisers breached fiduciary duties owed to the Applicant and Group Members. The Applicant also alleges that, for some Group Members, Count's financial advisers entered into ongoing services agreements pursuant to which they promised to provide services on an ongoing fee basis, which they did not provide on some or all occasions. Finally the Applicant alleges that Count incorrectly advised its financial advisers that conflicted remuneration could continue to be paid on arrangements entered into between the financial advisers and their clients where the arrangement was entered into prior to 1 July 2014.

Count denies the allegations and is defending the class action. In summary Count defends the class action including on the basis that:

(a) the receipt and retention of commission payments by Count's financial advisers (including in circumstances expressly permitted by legislation) is not conduct in breach of the law and not contrary to the best interests duty and duty of priority;
(b) Count took reasonable steps to ensure Count financial advisers complied with their legal obligations described above;
(c) Count did not engage in the alleged misleading and deceptive conduct;
(d) the alleged fiduciary duties are not owed by Count, or by each financial adviser, to clients;
(e) there was no breach of the ongoing service arrangement entered into by the Applicant; and
(f) Count did not incorrectly advise its financial advisers in relation to the acceptance of conflicted remuneration.

The Federal Court of Australia has set 1 December 2023 as the date by which group members may choose to opt out of the class action.

You may be a group member if you:

(a) received personal advice from a financial adviser in the Count network;

(b) acquired, renewed and/or continued to hold insurance, financial or platform products; and

(c) paid initial and/or trail commissions in respect of those products between 21 August 2014 until 21 August 2020.

If you believe that you may be a group member then you should read the Notice that the Federal Court has ordered be published. The Notice is a very important document which may affect your legal rights. A copy of the Notice and further information about the class action may be viewed at https://tinyurl.com/CountClassAction or by contacting the Applicant's lawyers, Piper Alderman, on **(02) 9253 9999**.

MERE01Z01MA - V1

Police hunt ends in arrest

Katie Hall

A man was taken into custody after police swarmed a small North-West Coast community – as officers conducted a search for a "person of interest" in the area.

Tasmania Police descended on the town of Penguin, near Devonport, on Monday morning, as part of a search for a 36-year-old man.

The man was described as having blonde hair, with a light/fair complexion and a medium build.

He was described as being approximately 182cm tall.

The man had last been seen near Dial Rd and South Rd in Penguin, while wearing a black hooded jumper.

He was taken into police custody just before midday on Monday.

Tasmania Police told the Mercury the man had been arrested for family violence-related offences.

At the time of writing, the man remained in custody, but no charges had yet been laid.

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Renowned Hobart restaurant is hitting the market



Louie Sorgi, owner and chef of Amici restaurant in North Hobart, is selling his popular business for $353,000. Picture: Sam Rosewarne

Italian fave is on menu

Katie Hall

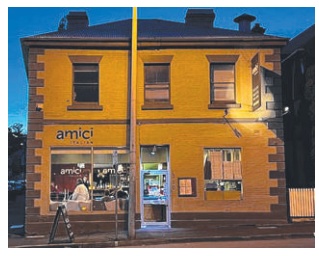
Hobart restaurateur Louie Sorgi has spent almost his entire life in hospitality – but after running four eateries, he's decided to put his renowned Italian restaurant on the market.

North Hobart's Amici Italian has been running since 2012, but owner Louie Sorgi says now is the time for him to take a step back and enjoy his retirement.

But lovers of Italian cuisine are not to fear: the restaurant will remain open.

The business has hit the market for $353,000, walk-in walk-out.

Mr Sorgi – who just turned 60 and has run four restaurants during his career – said he had found it hard to step back, but he knew it was the right time to sell up.



"I did explore my options of going back in myself, but I weighed it up ... a lot of people can manage with other people running (their business) and being less hands-on but I struggle to do that," Mr Sorgi said.

"A big part of that was the creativity; I do have a passion for the food industry and it was tempting to go back in ... (but) that balance is my achilles heel."

Mr Sorgi said he'd even started thinking about tapping into the vegan market.

"I mean it is highly unlikely, but I never say never, and if the right opportunity came along, I would look at it," he said. At 60, Mr Sorgi said he still believed he had plenty to learn but was excited about what lay ahead for his new-found retirement – which he hoped would include some travel.

For those looking at jumping into the hospitality business Mr Sorgi said it was a challenging craft but one that was also very rewarding.

"Being your own boss and having that creative side to it as well ... I get excited. You've got to have that creative side to you, you have got to be driven – but it's very rewarding," he said.

After previously running restaurants The Riviera and Rozzinis, Mr Sorgi said the key to being in business was "seeing things others don't see".

"For me, it's about understanding the market ... if there's not a market or a niche (to fill), then there's no point, because people won't want it."

ConocoPhillips

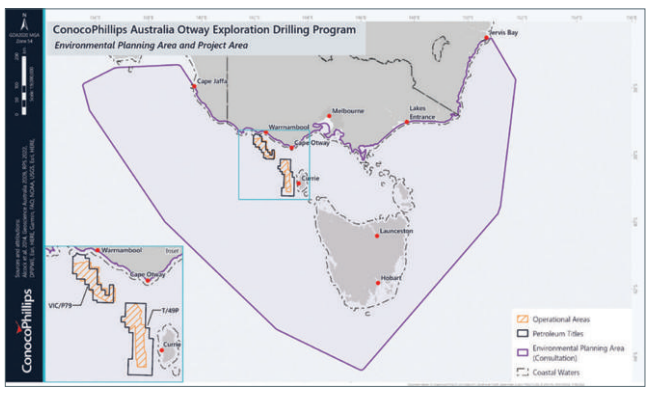
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MERE01Z01MA - V1

Death Notices

DALEY David

Formerly of Mt Ousley and Greenhills Aged Care. Founder of Daley & Co Chartered Accountants.

David passed away on Saturday 18 November 2023, aged 87 years with his daughters by his side.
Beloved husband of Rosemary (dec.). Loved father of Alison & Tim Manton, and Philippa & Michael Grasso. Poppy to David & Clare, Liam, & Georgina. Brother to Kerry & John Hiscocks.

Heartfelt thanks to the dedicated staff at Greenhills Aged Care and the diligent & caring nurses at Wollongong hospital. Special thanks also to Janet from Dr Ramakrishna's practice.

David will be farewelled at a private ceremony as was his wish.

Deaths & Funerals

BOUSFIELD
Dave
of Albion Park Rail

Passed away peacefully on Saturday, 18th November 2023. Much loved partner of Lorraine. Dearly loved father of Mick, Kerrie, and Emma and father-in-law of Lynette. Cherished Pop of all his grandchildren. Dave will be sadly missed by his loving family and many dear friends.

Aged 77 years
Forever in our Hearts

Relatives and friends are invited to attend Dave's funeral service, to be held at **H Parsons Funeral Home, 10 Woolworths Avenue, Warilla** on **Friday, 24th November 2023** at **12pm.**

FUNERAL DIRECTORS H.PARSONS (02) 4296 7834 WARILLA

DICKENSON
Peter 'Dicko'
of Woonona

Passed away peacefully on Sunday 19th November 2023. Beloved husband of Rosa. Dearly loved father and father-in-law of Craig and Stephanie, Leah and Murray, Nicole and Troy. Loved Poppy of Mason, Brodie, Carly, Abbi, Lara. Loved brother of Gary (dec), David, and Jan. Dicko will be sadly missed by his loving family and many dear friends.

Aged 81 Years
Our memories of you
will be treasured forever

Relatives and friends are invited to attend a funeral service for Dicko to be held at **H Parsons Funeral Home, 34 Belmore Street, Wollongong** on **Friday 24th November 2023** at **2.30pm.**

For those who are unable to attend you are invited to view Dicko's service via a link found on funeralannouncement.com.au

FUNERAL DIRECTORS H.PARSONS (02) 4228 9622 WOLLONGONG

IHSCHE
Attaulf 'Atta'
Of Kanahooka

Passed away peacefully on Thursday 16th of November 2023. Beloved son of Freda and Herbert (both dec). Loved brother and brother-in-law of Bodo and Uschi, Sigrun and Henry. Atta will be sadly missed by his loving family and many dear friends.

Aged 89 Years
Rest in Peace
Forever in our hearts

Relatives and friends are invited to Atta's funeral service to be held at **H.Parsons Funeral Home, 34 Belmore St Wollongong on Friday 24th of November 2023** at **12pm.**

FUNERAL DIRECTORS H.PARSONS (02) 4228 9622 WOLLONGONG



Deaths & Funerals

MADASCHI
Paolo

Passed away peacefully with loving family by his side on November 17th 2023, of Berkeley. Beloved Husband of Maria. Loving Papa of Carlo & Gail, Gianni & Mandy, Lino & Alison. Adored Nonno to Daniel, Benjamin, Kimberley, Zoe, Holly, Lucas, Annalise and Bisnonno to Jasper, Tahnee, Kaylee, Jorgia, Landon, Lakyn, Mia, Levi and Ruby. Loved Brother of Beppina (dec), Maria, Elsa and Emilia (dec). Paolo will be dearly missed by all of his family and friends both here and in Italy.

Aged 92 Years
Riposa In Pace

Relatives and friends are invited to attend a Mass of Christian Burial to be offered at the **Sacred Heart Catholic Church, 28 Stewart Street, Wollongong** on **Friday November 24th 2023** commencing at **1pm**. At conclusion of the Mass, the funeral will proceed to Lakeside Memorial Park, Kanahooka Road, Dapto where Paolo will be laid to rest.

Hansen & Cole Funerals
Kembla Grange 02 4272 4900

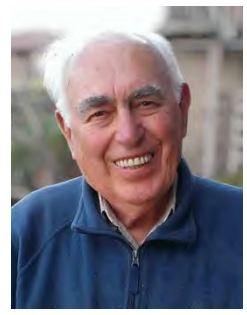
McQUILLAN
Edward (Joe)
of Dapto, formerly of Corrimal

Passed away on Friday, 17th November 2023. Dearly loved father and father-in-law of Carmen and David. Loved brother and brother-in-law of Marie, Helen and Eddy. Joe will be sadly missed by his loving family and many dear friends.

Aged 88Years
In God's Care

Requiem Mass for the repose of Joe's soul will be celebrated at **St John The Evangelist Catholic Church, 24 Jerematta Street, Dapto** on **Friday, 24 November 2023 at 11am**

wollongong cityfunerals 02 4261 4488 DAPTO



MONTECCHI
Alberto
of Lake Heights

Passed away peacefully surrounded by loving family on Friday, 17th November 2023. Beloved husband of Angela (dec). Dearly loved father and father-in-law of Maurizio and Tracey, Maria and Joseph, Marinella and David. Much loved Nonno of Ethan, Julia, Daniel, Ashleigh and their partners. Loved brother of Giancarlo (dec), and Lanfranco. Alberto will be sadly missed by his loving family and many dear friends here and in Italy.

Aged 96 Years
Now reunited with Angela

Relatives and friends are kindly invited to attend Alberto's funeral service to be held at **St Francis of Assisi Catholic Church**, **1 Bruce Road Warrawong** on **Monday**, **27th November 2023** at **11am**.

Rankins Funerals 02 4276 1000 WARRAWONG

ROBERTS, Norma Helen
Late of Albion Park Rail

Much loved wife of Bob (dec).
Adored mum of Kim, Tracey & Warren, Bobby & Maureen.
Absolutely cherished Nan, Nan Nan & Nan Nan Nan to all of her grandchildren, great grandchildren & great great grandchildren.
Loved family member and friend to all.

Aged 87 years
"Love you heaps"

Norma's funeral service will be held on **Monday 27 th November 2023 at 2 .00pm at Hansen & Cole Funerals, 634 Northcliffe Dr, Kembla Grange**.
In lieu of flowers, please donate on-line to Illawarra Convoy.
Please wear a splash of orange to your outfit.

WHITE LADY FUNERALS
Bulli 02 4285 9449

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Public Notices

vodafone OPTUS

PROPOSED 5G UPGRADE TO EXISTING MOBILE PHONE BASE STATION

Address: Monopole - 131 Greenwell Point Rd, Worrigee 2540 (1//DP1129891)
Reference: S8522 Worrigee

1. The proposed works include the addition of new 4G & 5G equipment and associated works including the replacement of the existing headframe; the replacement of 3 existing 4G antennas (less than 2.8m long) with 6 new antennas mounted on the new headframe; the replacement of the existing remote radio units (RRUs) with 24 new RRUs; and ancillary equipment including but not limited to GPS antenna, mast head amplifiers, deplixers, combiners, antenna mounts, cable trays, fibre and electrical cabling necessary for the operation or proper functioning of the low-impact facility.
2. Optus & Vodafone regards the proposed installation as a Low-impact Facility under the *Telecommunications (Low-impact Facilities) Determination 2018* based on the description above.
3. The proposed infrastructure will comply with the ACMA EME regulatory arrangements. An EME Report and further information can be obtained at www.rfnsa.com.au/2540016.
4. In accordance with Section 7 of C564:2020 Mobile Phone Base Station Deployment Code, we invite you to provide feedback about the proposal. Further information and/or comments should be directed to: Reinier Hanekom (Plan Consult Town Planning), 07 5430 6632, Suit 6-10, 28 Eenie Crk Road, Noosaville, 4566 or info@planconsult.com.au by **5 pm on 08/12/23**.

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

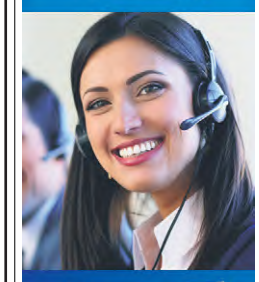
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Barbara."

Public Notices

Rusty, but ready to play



Rusty Falcon on stage for FOKI 2023. The band is set to rehearse in preparation for next year's musical event. Picture: MICHAEL LASKEY

CAN you mix milk and music? For a long time, it was the daily routine for Troy Smith.

The retired dairy farmer spent his time for decades between cows, strumming on his guitar and writing songs.

After decades of living on King Island, home is now an hour from Launceston. Although the real home will always be this little island in Bass Strait.

"It's always there. It's just so great to always have the island there to wander back to and we spend a lot of time on holidays and rehearsing for FOKI and doing this and doing that. So yeah, it's great," says Smith.

After years of playing with cover bands and during the last decade playing the rhythm guitar with local band 40 Degrees South, Troy decided to start his Rusty Falcon band, together with drummer Tim Leo and bass player Jarred Perryman.

It took a little while for the locals to appreciate the band's original songs, but after a while the toes started tapping and punters hit the dance floor.

"If you can remind people that they're out for a good time and if you've got a bit of a beat to your music and the songs stand up, then they will eventually come around.

"But it takes a while to bludgeon those songs into people's subconscious. You know, we're not a top 40 band.

"You're not hearing our songs on the radio, that's for sure," says the retired farmer.

People ask if the Rusty Falcon band is a rock band.

"I've given up trying to categorise ourselves," Smith says, "with the addition of Jarred and Tim, we took things up a notch and lately, we added some more blues in there without it being a blues rock band.

"Our music is a mixture of styles."

When Smith was living on King Island the band used to practice regularly, up to three times a week.

But with his move, this has changed.

"We got together in October for the first time since FOKI 23 in February. I forgot a few lyrics, and there was the odd mistake here and there, but after one session, we were pretty well on the money again. And so, it's just a matter of tightening it up.

"So, it was probably not as tight as what it was just before I left the island, because we did put all that work in. And unfortunately, due to Covid and a few other things, we didn't get to play enough gigs, and we just felt we were getting a real good momentum."

In early December, the band will be back together again, with follow-up rehearsing set in January.

"That should give us enough time to hit the stage again in February for FOKI 2024," says Smith.

FOKI is the home turf for the Rusty Falcon frontman. "Yes, I was there, right from the beginning. We just had a vision and enthusiasm.

The first FOKI was about picking King Island up. The focus was to help everyone get up and going in the wake of the abattoir closure, so it didn't matter so much that it was completely a bit of a mess and whatever.

"But we just did our best, and we learned a lot from it and moved on from there. It's just wonderful, and it's just turned into a great professional music show and annual island calendar event.

"It's a real credit to the committee and everybody that has just stuck with it over all these years."

Drilling comments sought

THE proposed ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan (EP) is now available for public comment via the NOPSEMA website https://consultation.nopsema.gov.au

The public is invited to read the EP and associated documents and submit comments to NOPSEMA during the public comment period which will run until December 18.

The public comment period provides an opportunity for community members to raise issues about environmental management matters that have not yet been considered in the environment plan for the proposed activity.

To read more about the public comment period and how to make an effective comment visit the NOPSEMA website and read *Have your say on environmental aspects of offshore energy activities*.

Water woes continue

CURRIE continued to have water supply disruption throughout the weekend and into this week.

As we enter bushfire season, residents have also raised concerns around water supply to both Grassy and Currie in the event the villages are threatened and are seeking confidence from TasWater that this would not become an issue.

Airlocks, faulty valves, and mains connection pipe leaks have all been suggested as the ongoing waterworks to fix the supply.

The issues this week appear to vary from property to property.

Since last week's disruption and fixes, the household disruptions range from no issues through to 'just a trickle' and low pressure to no supply.

TasWater has been asked if residents can expect the problems to be completely solved or whether this could be an ongoing problem with Currie's old pipe network.

PDA
SURVEYORS, ENGINEERS & PLANNERS
SURVEYORS REGULARLY VISITING KING ISLAND
For all enquiries, please contact:
Adrian Eberhardt, Registered Land Surveyor
6431 4400 or **0447 544 360**
pda.bne@pda.com.au

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Nutrien Ag Solutions Limited
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P: 03 6391 6555 | E: livestocktas@nutrien.com.au
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Community consultation on the draft replacement of the Intersecting Streams Water Sharing Plan

The NSW Government has developed the draft replacement water sharing plan for the Intersecting Streams Unregulated River Water Sources 2024.

The draft plan and supporting documentation are available for viewing on the Department of Planning and Environment website from 4 September to 13 October 2023.

Join us at one of the information sessions listed below to learn more about:

- the draft replacement plan
- how to make a submission.

Information sessions

Date/Time	Location	Event time
14 September 2023	Live webinar	5pm – 6.30pm
19 September 2023	Face to face meeting Lightning Ridge Bowling Club, 29 Morilla Street, Lightning Ridge NSW 2834	10am – 12.00pm

During the public exhibition period DPE staff will also be available for 30 minute booked phone interviews.

To find out more information, including how to make a submission please visit:
water.nsw.gov.au/intersecting-steams-water-sharing-plan
or email intersectingstreams.wsp@dpie.nsw.gov.au

Submissions close at 11.59 pm on Friday 13 October 2023.

LP1022

Parramatta Road, Camperdown NSW Aboriginal Cultural Heritage Assessment – Community Consultation Stage 1

Urbis has been commissioned by the University of Sydney's University Infrastructure Unit (the Proponent) to conduct an Aboriginal Cultural Heritage Assessment (ACHA) for their site on Parramatta Road, Camperdown NSW (Lot 1/DP 1171804). This ACHA has been prepared to support a State Significant Development Application, which seeks approval for the development of a multi-disciplinary General Teaching Space at the site. The proponent can be contacted directly via:

Julie Parsons
Community Engagement Manager
julie.parsons@sydney.edu.au
Services Building G12, 22 Codrington Street, Darlington, 2006

In accordance with Section 4.1.3 of the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010) and Clause 80C of the NSW National Parks and Wildlife Regulation 2009, the Proponent is seeking the registration of Aboriginal persons or groups who may hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) that may be present in the subject area.

The purpose of community consultation with Aboriginal people is to assist the Proponent in the preparation of the ACHA and the assessment of the cultural heritage significance of the subject area.

Please register your interest in writing to the contact details provided below by 21st September 2023.

Ginger-Rose Harrington

Consultant
Urbis Pty Ltd gharrington@urbis.com.au
Level 8, 123 Pitt Street, Sydney, 2000.

Please be advised that the Proponent is required to forward the names of Aboriginal persons and groups who register an interest to The Aboriginal Cultural Heritage Regulation Branch- Heritage NSW
- Department of Premier and Cabinet and the Metropolitan Local Aboriginal Land Council; unless the person or group specifies that they do not want their details released.

ConocoPhillips

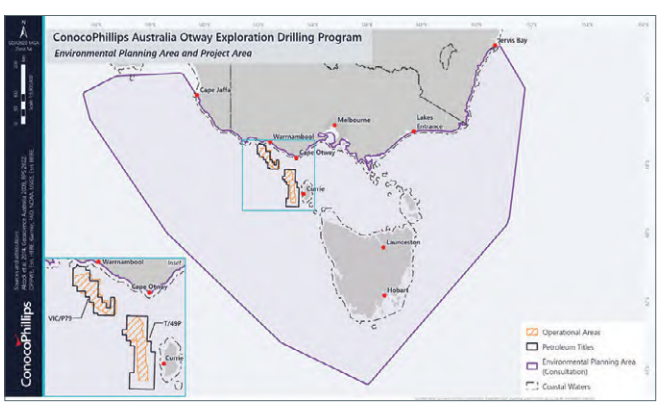
Relevant Person Consultation:

ConocoPhillips Australia Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

SCAN HERE

CMM29892CP_KOR

Notice under Section 29 of the *Native Title Act 1993* Exploration Licence Number EL9590 (Act 1992)

This notice is given in accordance with the requirements of section 29 of the *Native Title Act 1993* (Commonwealth).

Description of the nature of the act
Pursuant to the *Native Title (Right to Negotiate (Exclusion) — NSW Land) Determination No. 1 of 1996* (Cth), Exploration Licence 9590 includes a condition to the effect that the holder must not prospect on any land or waters covered by the licence in relation to which native title exists without the prior written consent of the Minister administering the *Mining Act 1992* (the 'Native Title Condition').

The Minister administering the *Mining Act 1992* intends to give consent to prospecting on land subject to native title in the licence in accordance with the *Native Title (Right to Negotiate (Inclusion) — NSW Land)* Approval No. 1 of 1996 (Cth).

Should consent be granted, the licence holder may apply to renew or transfer the licence prior to it expiring (including partial renewals or partial transfers).

Note: If the consent is granted, it will apply to any renewal, re grant or re-making (including partial renewals or partial transfers) or extension of the term of the licence, which may be valid pursuant to section 24MD(1) of the *Native Title Act 1993* (Cth) without a further notification under section 29.

Holder's details
Westrock Minerals Pty Ltd (ACN 625 790 187) is the holder of Exploration Licence 9590 for Group 1 minerals.

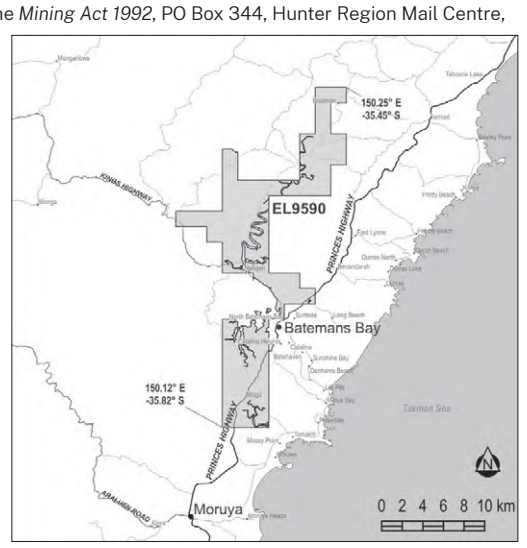
The licence contains a condition that the holder must not prospect on any land or waters on which native title exists without the prior consent of the Minister administering the *Mining Act 1992*. The licence holder has sought the Minister's consent to conduct prospecting activities in the entire licence area.

Description of area that may be affected
The entire area of Exploration Licence 9590 which covers about 69 units and is situated approximately 32 kilometres north of Moruya, in the State of NSW.

Name and postal address of person by whom the act would be done
The Minister administering the *Mining Act 1992*, PO Box 344, Hunter Region Mail Centre, NSW 2310.

How further information about the act can be obtained
Further information may be obtained from; Assessments and Systems, Regional NSW on (02) 4063 6600 or titles@regional.nsw.gov.au.

Notification Day
For the purposes of section 29(4) of the *Native Title Act 1993* the notification day is 21 September 2023 Under section 30 of the *Native Title Act 1993* persons have until 3 months after the notification day to take certain steps to become native title parties in relation to this notice.



SB10566

ConocoPhillips

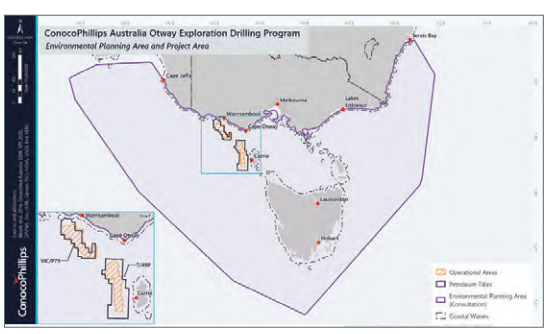
Relevant Person Consultation:

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For more information:
E: otway@conocophillips.com
T: 07 3182 7122

conocophillips.com.au

SCAN HERE

CMM29892CP_KOR

Australian Government
Australian Heritage Council

Environment Protection and Biodiversity Conservation Act 1999

PROPOSED AMENDMENTS TO A NATIONAL HERITAGE LISTING: WAVE HILL WALK OFF ROUTE

CALL FOR PUBLIC COMMENT

The Australian Heritage Council is proposing amendments to the **Wave Hill Walk Off Route** National Heritage listing to correct factual errors in the listing. The National Heritage List recognises places that are of outstanding significance to the nation for their natural, Indigenous and/or historic heritage values.

The Australian Heritage Council, on community advice, proposes to change the date of the Walk Off from the **22nd of August 1966 to the 23rd of August 1966**. Further to this, parts of the Buchanan and Buntine highways that relate to the Walk Off Route have been renamed. The Council proposes amendments to the listing to correlate the historical route to contemporary maps. The Council's initial assessment concludes that all of these proposed amendments do not alter the National Heritage listed values of the place.

Comments are invited on these proposed amendments to the Wave Hill Walk Off Route listing. Further information is available by contacting the Australian Heritage Council at **heritage@dcceew.gov.au**. The Wave Hill Walk Off National Heritage listing can be accessed via the Australian Heritage Database, **http://www.environment.gov.au/cgi-bin/ahdb/search.pl**.

Contact us

Please provide any written comments by **5:00 PM AEST** on **2 November 2023**.

Australian Heritage Council
GPO Box 3090
CANBERRA ACT 2601

Or by email to: **heritage@dcceew.gov.au**

All comments will be provided to the Minister for the Environment for consideration when making her decision on whether or not the proposed amendments alter the heritage values of the National Heritage Listing.

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Lifeline **13 11 14**

NGUJIMA-YIN FLOATING PRODUCTION STORAGE AND OFFLOADING FACILITY OPERATIONS AND PYRENEES FACILITY OPERATIONS ENVIRONMENT PLANS

For more than 35 years, Woodside has been developing and operating LNG and oil projects in Australia. Our focus is the safety, reliability, efficiency and environmental performance of our operations and activities.

Woodside consults so that feedback from relevant persons is considered and used to inform the revision of two operations Environment Plans for the Ngujima-Yin Floating Production Storage and Offloading Facility Operations and Pyrenees Facility Operations.

Our activities

Woodside plans to continue producing crude oil at the Pyrenees and Ngujima-Yin Floating Production Storage and Offloading (FPSO) facilities and is submitting a five-year revision to the operational Environment Plans. The Environment Plans for the Pyrenees FPSO and Ngujima-Yin FPSO facilities will cover operations including offloading and associated activities, inspection, maintenance, monitoring, and repair of the FPSOs and subsea infrastructure, disconnection and sail-away of the FPSO facilities when required, and production from two proposed additional wells from the Ngujima-Yin FPSO.

The Pyrenees FPSO is located about 45 km northwest of Exmouth, Western Australia. Production began in 2010 and is scheduled to end in 2035. The Ngujima-Yin FPSO is about 50 km, northwest of Exmouth, Western Australia. Production began in 2008 and is scheduled to end in 2028.

We are seeking input from relevant persons whose functions, interests or activities may be affected by continued operations.

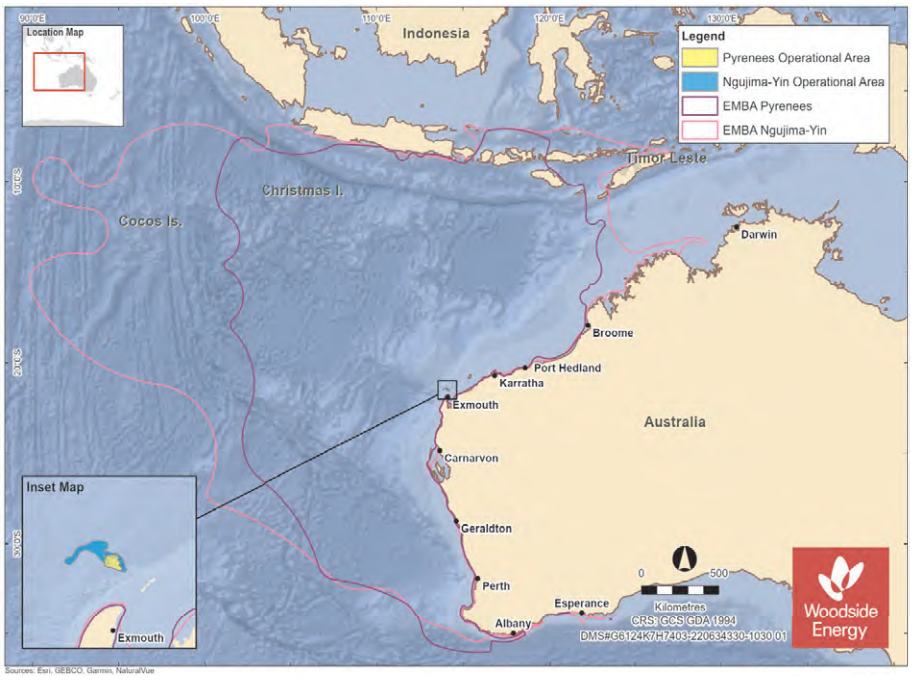
The environment that may be affected (EMBA)

The EMBA is the largest area where activities could potentially have a direct or indirect impact. The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for these two Environmental Plans, is determined by modelling a highly unlikely release of hydrocarbons from loss of well control or a vessel collision with the FPSO with enough force to breach the hull.

The EMBA represents the merged area of many possible modelled paths that a highly unlikely hydrocarbon release could travel if left unmitigated and depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the whole EMBA will not be affected.

We want to hear from you

If you are an individual, organisation or community group and believe your functions, interests or activities may be impacted by our activities, we would like to hear from you by **Friday, 27 October 2023** to identify you as a relevant person.



Want to know more or provide input?

A feedback form and more information can be found at:
www.woodside.com/sustainability/consultation-activities.

You can also subscribe via our website to receive future information on upcoming activities.

E: Feedback@woodside.com
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General Notices

Public Notices and Event

MILLICENT CANCER SUPPORT GROUP AGM
to be held at the Millicent RSL Hall at 5.30pm on Tuesday 28th November 2023. Meal to follow at the Somerset Hotel. New members are most welcome. Enquires to Lisa 0407 872 587

Network Classifieds
Find it in the
Trades & Services
section of Network Classifieds.
1300 666 808

Public Notices and Event

The management and staff of McBride Operations Pty Ltd at Telopea Downs
would like to thank the CFA and CFS volunteers, neighbours and community members who worked together to defend our property against the fire at Blue Hills on 10th & 11th of November.

12651031-AP47-23

Bordertown Football Club Annual General Meeting
Wed 29th November 7.30 pm
in the clubrooms
Apologies to the Secretary
0407 612 267
or bfc00@bigpond.com

12649692-AA46-23

Find it in the
General Classifieds
section of Network Classifieds.

General Notices

Public Notices and Event

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM306605CP

Public Notices and Event

PUBLIC NOTICE

beach

Community Information Webinars

To continue meeting natural gas demand from homes, business and industry, Beach Energy has commenced planning and consultation for the Offshore Gas Victoria (OGV) Project.

The webinars will enable the local community to learn more about the OGV Project, which is considering a range of activity in the Commonwealth waters across several phases. These webinars will focus on drilling and plug and abandonment activities.

We are committed to working with our local communities, ensuring people are informed of our projects and can provide feedback. Stakeholder consultation is an important part of our planning as it helps identify any local concerns and ensures management of potential impacts.

If you would like to ask our technical staff questions about our projects, or provide feedback, please register your interest in joining one or more of the webinars by emailing community@beachenergy.com.au.

Wednesday 22 November 2023, 5pm to 6pm AEDT
Drilling and Plug and Abandonment activities explained, including Q & A

Wednesday 29 November 2023, 12pm to 12.30pm AEDT
Drilling Q & A with Beach technical team

Thursday 30 November 2023, 1.30pm – 2pm AEDT
Plug and Abandonment Q & A with Beach technical team

We welcome your questions, please contact:

P 1800 797 011
E community@beachenergy.com.au
engage.beachenergy.com.au/

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GD23-0274

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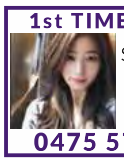
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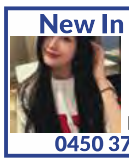
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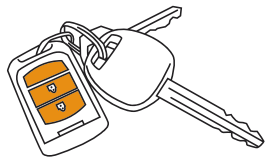
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Notices

Public Notices

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ConocoPhillips

CMM30597CP

THE ADMINISTRATION AND PROBATE ACT 1935 NOTICE FOR CLAIMS

In the Estate of MONICA MARIA CAMPBELL (ALSO KNOWN AS MONIKA MARIA CAMPBELL) late of Unit 2, 231 Hobart Road, Kings Meadows in Tasmania who died on 9 January 2023 at Norwood in Tasmania.

NOTICE is hereby given that all creditors, next of kin and other persons having claims in respect of the property or the Estate of the abovenamed deceased, are required by the Executors, GORDON RALPH PAUL and ROBERT ANDREW CASH, C/- Shields Heritage, 53 Cameron Street, Launceston in Tasmania, to send particulars in writing to The Registrar, Probate Registry, Supreme Court of Tasmania, Salamanca Place, Hobart in Tasmania on or before 27 December, 2023 after which date the Executors may distribute the assets having regard only to the claims of which they then have notice.

Dated this 22nd day of November 2023

SHIELDS HERITAGE
53 Cameron Street, Launceston
Solicitors for the Estate

(Ref: 231218)

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HUON VALLEY COUNCIL

APPLICATIONS FOR PERMIT

Notice is given that the following applications have been made for planning permits:

PROPOSAL	SITE
Single dwelling and demolition of existing dwelling (DA-44/2023)	158 Kingfish Beach Road, Southport (CT-59724/3)
Change of use from studio outbuilding (residential) to restaurant (food services), new amenities block, onsite wastewater management, stormwater management, carpark, vehicle access upgrade, retrospective driveway works and pedestrian bridge over waterway, and demolition of an outbuilding, at 6636 Channel Highway and 13 Cliffords Road, Deep Bay (DA-111/2023)	6636 Channel Highway, Deep Bay (CT-127623/1)
Dwelling, carport and shed outbuildings, and associated works (DA-204/2023)	19 Flakemores Road, Eggs and Bacon Bay (CT-30982/8)
Single dwelling, garage and driveway (DA-243/2023)	111 Kent Beach Road, Dover (CT-184482/54)
Single dwelling and associated access (DA-247/2023)	101 Kent Beach Road, Dover (CT-184482/49)

The applications may be viewed at the Council's Customer Service Centre, 40 Main Street, Huonville, during normal office hours (8:20am - 5:00pm Monday to Friday) and on Council's website: www.huonvalley.tas.gov.au

Representations on the applications may be made to the General Manager in writing either by:

Post: **PO Box 210, Huonville, 7109**
Email: **hvc@huonvalley.tas.gov.au**
Fax: **(03) 6264 0399**
Online: **www.huonvalley.tas.gov.au**

All representations must include the author's full name, contact number and postal address and be received by 6 December 2023.

Lachlan Kranz
Acting General Manager

Kingborough

APPLICATIONS FOR PLANNING APPROVAL

Pursuant to s57(3) of the *Land Use Planning and Approvals Act 1993*, it is hereby notified that the following Planning Permit applications are on public notice:

SITE	PROPOSAL
17 Apolline Drive, Kingston DA-2023-340	Two multiple dwellings
25 Incana Road, Margate DA-2023-371	Extension to dwelling and retrospective extension to outbuilding (carport)
88 Redwood Road, Kingston DA-2023-368	Extension to dwelling

The applications and concept plans may be viewed on the Kingborough Council website, www.kingborough.tas.gov.au. For information or assistance please call (03) 6211 8200.

Any representation from interested persons must be lodged in writing with the General Manager, 15 Channel Highway, Kingston 7050 or by email to kc@kingborough.tas.gov.au, and must be received by 5 December 2023.

Gary Arnold
General Manager

kingborough.tas.gov.au

GLENORCHY CITY COUNCIL

APPLICATIONS FOR PERMIT

Notice is given of the following planning applications:

94 TOLOSA STREET, GLENORCHY
PLN-23-126 Outbuilding (Residential)

FAULKNERS ROAD, GLENLUSK (127900/1)
PLN-23-239 Single Dwelling and Outbuilding

350-360 MAIN ROAD, GLENORCHY
PLN-23-291 External alterations and Quench pipe (Business and Professional Services)

Plans and documents may be viewed in person at Council's offices at 374 Main Road, Glenorchy TAS 7010 during office hours. Plans are available online at www.gcc.tas.gov.au, until 5/12/2023.

Representations may be made by letter addressed to the General Manager at the address above, or by email to gccmail@gcc.tas.gov.au. Representations must be received no later than 11.59pm on 5/12/2023, or for postal and hand delivered representations, by 5.00pm.

Tony McMullen, **General Manager**

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General Notices

Pambula & District Community Development Ltd

Seeking Volunteer Board Members

Become part of a forward thinking Board and help reshape the future of community banking in Bega Valley Shire and Bombala area.

Our company has been established for fifteen years to provide support for our communities through banking services and by returning profits to Community groups. Pambula & District Community Development Limited (PDCDL) is a franchisee of Bendigo Bank and operates the locally owned Community Bank branches in Pambula and Bega, as well as a new office in Bombala.

Role and Responsibility:

As a director you will be,

- Motivated, well organised, self-directed and most importantly, community orientated.
- Support and drive the company's strategic direction, goals and objectives to have a real say in the future direction of this dynamic business and its support of our community.

As part of an important process of Board renewal, PDCDL is searching for new Board Directors with relevant **skills and experience in the key areas of Community, Communication, Corporate Governance and Leadership.** PDCDL is in a strong financial position, with a highly skilled volunteer Board and staff.

Send your covering letter and CV, or questions to Graham Stubbs at
Pambulacommunitybank@gmail.com

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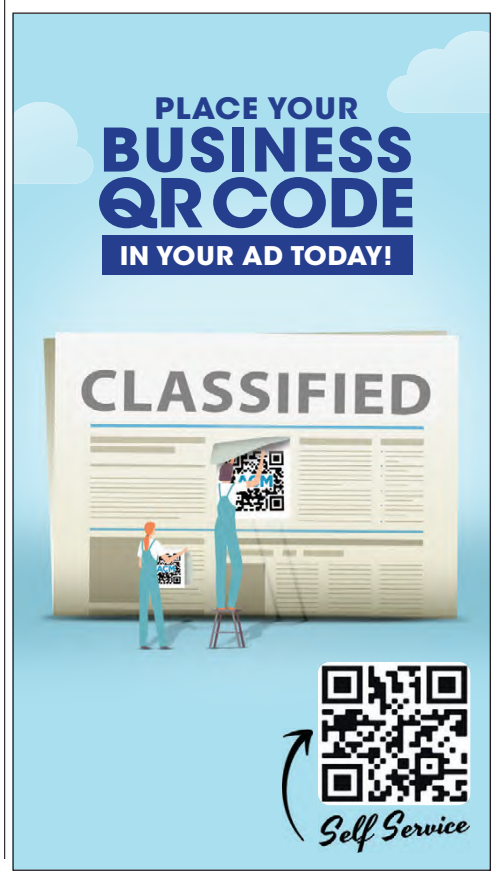
Applications close Wednesday 29th November 2023 at 5pm.

(Only short listed applicants will be contacted)

Area: MERIMBULA NSW 2548

Ph: 0264951502

Email: emmai@merimbularsl.com.au



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Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

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Mass frog mortality event

NEAVE MOORE

HUNDREDS of frogs have mysteriously died at Bool Lagoon, with authorities searching for a cause.

The lagoon, located south of Naracoorte, was closed to the public by the Department of Environment and Water in an effort to investigate a mass frog mortality event happening at the site.

Discussion on a local Facebook group in late August had residents and tourists questioning why the lagoon was closed for visitors with no signage explaining the decision.

Department for Environment and Water Principal Ecologist Dr Karl Hillyard said that it is estimated that hundreds of frogs, in particular the striped marsh frog and the endangered southern bell frog, had died in what he termed as an "unusual event" for Bool Lagoon.

"The cause of the deaths has yet to be determined and, as a precautionary measure, the campground and walking trains are temporarily closed while investigations take place," he said.

"National parks staff are regularly attending the site to monitor conditions, including for the prevalence of dead frogs."

Dr Hillyard said that while the cause of death was not confirmed, it is believed to involve the chytrid fungus, an infectious fungal disease that is fatal to amphibians.



Friends of Bool and Hacks Lagoon host Shadow Minister for Water Resources Nicola Centofanti in late 2022 for a meeting on preserving the site. **Pictures: FILE**

"Further testing is underway to investigate other possible causes of the deaths," he said.

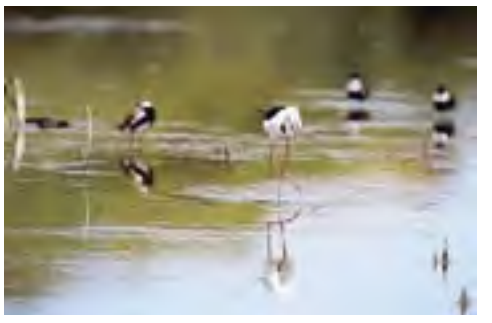
The Department of Environment and Water issued permission for a sample of the deceased frogs to be collected for testing and the results are being analysed by department staff and frog experts.

"The closure will be reviewed later this week, and the department will look to reopen the campground and walks when it is suitable to do so," he said.

"Our regular monitoring at the site indicates the number of frog deaths has been reducing each week.

"There remains evidence of active frog populations, which is a good sign."

As of Tuesday, August 29, the closure of the Bool would last until Thursday August 31 depending on the investigations progress.



Bool Lagoon hosts visiting birds.

When the Bool Lagoon is reopened to the public, Dr Hillyard said that people can help reduce the potential spread of disease by staying on designated paths.

"People should also clean their footwear after visiting the site by drying shoes or boots for a minimum of three hours, or cleaning them with water and one per cent bleach for a minimum of one minute," Dr Hillyard said.

"Ideally, people should visit only one wetland site per day and follow the above decontamination advice.

"If you find more than five dead frogs, please email details to wildlife@sa.gov.au."

Naracoorte High to close for state strike

NEAVE MOORE

NARACOORTE High School is to close on Friday September 1 due to a vote for industrial action by members of the Australian Education Union and joins other public schools around South Australia.

A survey completed by union members returned that 80 per cent of participants voted to walk off the job on Friday.

Schools around the district have issued statements to families, should the strike influence weekly class schedules.

On Tuesday afternoon, Naracoorte High School principal Lynette Corletto said in a statement that to ensure adequate standards of studentsafety and welfare, the "Education Director has approved the closure".

"[The closure was approved] on the grounds that insufficient staff will be on duty to enable me as Principal to ensure that adequate standards of student safety and welfare can be provided," she said.

In the same statement, Principal Corletto reported that normal education programs will commence at the site from Monday September 4.

The union's statewide strike is for a pay increase of amounts up to 20 per cent over three years, more time for teachers to complete administrative work and additional classroom support for teachers from the government.



Naracoorte High School to close doors on Friday due to state strike. **Picture SUPPLIED**



Herald

Connect your **business** with the **community**

The first choice for local news in Naracoorte

The Naracoorte Herald has been serving the community since 1875 and carries local and regional news. It highlights community issues, news and achievements and a great deal of sport. It has a loyal readership, created by its consciousness of its role in the community - that of an informer, watchdog and entertainer.

The newspaper is constantly aware of the need for changes and is continually evolving the publication to suit its readers. The Herald caters for a wide cross section of the community.

The Naracoorte Herald services the thriving agricultural centre of the south-east of South Australia. Located in the heart of the Limestone Coast, Naracoorte is home to the famous world heritage listed fossil site, Bool Lagoon and wetlands, museums, galleries, playgrounds and parks, a unique swimming lake and a variety of shops and accommodation properties.

PUBLISHED THURSDAYS AND ONLINE 24/7

12620104-MS29-23

ConocoPhillips

Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com | T: 07 3182 7122
conocophillips.com.au

SCAN HERE

12629869_JC35-23

CMM29896CP_NAR

MP pays tribute to Rex Hall

A LIMESTONE Coast stalwart has been remembered in state parliament for a lifetime of community service, particularly to the Country Fire Service.

The late Rex Hall was acknowledged by Member for MacKillop Nick McBride who said his legacy would live on.

At 84, Mr Hall passed away on June 2 this year.

He was remembered at a memorial service where hundreds attended to celebrate the life of not only a father, family man, expert chrysanthemum grower and champion ram breeder but also a dedicated volunteer, author and lifelong member of the South Australian Country Fire Service.

Mr Hall started his CFS career in 1960 at the One Tree Hill EFS brigade where he was the inaugural secretary and substation officer.

He remained at the One Tree Hill brigade for 15 years until 1975, when he and his wife, Dawn, and son, Alan, moved Gadang, their property between Keith and Willalooka.

Here, Mr Hall became a champion ram breeder, with his Poll Dorset and later White Suffolk Studs.

His expertise was recognised, with championships at many Adelaide and Melbourne royal shows.

He later went on to judge at many shows, including Royal Adelaide, Wagga Wagga, Melbourne Royal, Hobart, Perth Royal and many more.

Building a life in the South East, Mr Hall was a foundation player, member and inaugural president of the Willalooka Cricket Club.

He was heavily involved in the Willalooka Progress Association and helped develop the Willalooka Oval.

Mr Hall was also the Willalooka CFS brigade captain and sat on the Tatiara Fire Fighting Association training committee, communications committee, and equipment committee.

This led to roles of regional and state training committee representatives and CFS board liaison positions.

Mr Hall spent countless hours training volunteers across the South East and was a driving force behind the establishment of the CFS South-East Training Centre in Naracoorte.

In 1994, Mr Hall was awarded the Australian Fire Service Medal for his distinguished service to the Australian Fire Service.

When it came time to retire in the late '90s Mr Hall moved to Naracoorte and joined the Naracoorte CFS as group officer.



Rex Hall, with his son Alan and daughter-in-law Christine, after he was awarded the inaugural Life Membership to the SA Volunteer Fire Fighters' Museum.

He was on the State Incident Management Team for several years, which saw him deployed to all corners of the state, as well as to incidents in Victoria and New South Wales.

He also spent many years as both local and state representative for the CFS Volunteer Association.

It was his involvement with the CFS Volunteers Association and a trip to New Zealand which sparked his passion for preserving CFS history.

Mr Hall had a vision for a South Australian firefighters museum to honour the history of the CFS and preserve and protect memorabilia and vintage fire vehicles.

This vision came to fruition in his town of Naracoorte.

Stage 1 of the museum was opened in February 2020, but he did not live to see stage 2 completed, which involves a visitor and training centre and a conference facility.

Mr Hall and his committee of volunteers were also the driving force behind the state's first CFS memorial to honour volunteer firefighters who lost their lives in the line of duty.

This was opened in Naracoorte in 2016 and every year a memorial service is held.

The memorial represents the ultimate sacrifice made by enormously important volunteer CFS firefighters who dedicate their time to protect lives and infrastructure.

As well as this, Mr Hall wrote six books, with his last book, Volunteer Fire Fighting in South Australia, being launched at his memorial service.

In 2022, Mr Hall's dedication to the CFS was recognised when he received the South Australia CFS 60- year Service Medal, and, again earlier this year when he was awarded the first life membership of the South Australia Volunteer Fire Fighters Museum.

In closing, Mr McBride thanked Mr Hall for his lifetime of service.

"Rex has left an enormous void in the South Australian Country Fire Service, but his legacy will live on in the South Australia Volunteer Fire Fighters Museum and in the CFS memorial," he said.

"I thank Rex for his service to the community. His passion and drive for the CFS and his Volunteer Fire Fighters Museum and memorial will long be remembered.

"May he rest in peace."

Deputy Speaker Tony Piccolo also paid tribute to Mr Hall.

"On behalf of the house I would like to extend our condolences to the family," he said.

"I had the privilege of meeting Rex in Naracoorte and also of visiting his museum. He was a great man—a gentleman, I would say."

Mr Hall is survived by son Alan Hall, daughter-in-law Christine, three granddaughters, four great grandchildren and their extended families.



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12620104-MS29-23

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COMING EVENTS

SEPTEMBER

Author Talk

- September 26. Meredith Appleyard will present her new book Daisy and Kate. Starts 2pm. Bookings essential on 8762 2338.

OCTOBER

Naracoorte Show

- October 14 at Naracoorte Showgrounds.

SCHOOL HOLIDAY ACTIVITIES

Tuesday, October 3

- Create your own dragon or rainbow blower. All ages. 9-4pm

Wednesday, October 4

- Monster dress-up day. Create your own paper masks. 9 years and under 9-1pm. Geometric mask model 10+ yrs. Bookings essential. 10am start.

Thursday, October 5

- Teddy Bears Picnic at the Caves. Bring along your favourite teddy, a picnic rug and food. Teddy Bears are then invited for a slumber party sleep over at the Library! Teddy craft available 9-4pm at the Library.

Friday, October 6.

- Make your own beaded key chain- 9yrs and under 9-4pm.
- Cross stitch keychain/ Rainbow wall hanging- 10+ years. Bookings essential.

Monday, October 9

- Make your own fairy garden terrarium. Bookings essential. 10am start. Younger craft available 9-4pm.

Tuesday, October 10

- Create your own magical dream catcher. Use feathers and wool to make it unique. 9-4pm

Wednesday, October 11

- Fairy Day - Dress up and come and listen to Liz Crowley read her new book. Colouring competition will be judged. Create your own magical nature inspired fairy wand.

Thursday, October 12

- Visit from the Caves. Come along for some fun activities hosted by the lovely staff from the Naracoorte Caves. 10am.

Friday, October 13

- Try your luck- will you make a lucky shamrock or an "un-lucky for some" black cat? 9-4pm

NOVEMBER

- Tennis SA State League All Stars at Lucindale.

REGULAR EVENTS

MONDAY

- Lions Club of Naracoorte: Help make a difference to your local community through a service club which raises money for projects locally, and at State, national and international levels. Location: "Lion's Den", Deviation Road Time: 7.30pm Dates: 1st & 3rd Monday of the month For more information: Malcolm McEachern 0418 524 045
- Rotary Club of Naracoorte Inc. Location: Billy Mac's, Ormerod Street, Naracoorte Time: 6pm for 6.30pm start Dates: 2nd & 4th Monday of the month For more information phone Lis on 0488 991 951.
- Naracoorte Singers: If you enjoy singing, come along and join in with the Naracoorte Singers. New singers are welcome. Location: Seymour Hall, Naracoorte Anglican Church Time: 7.15pm Dates: Every Monday night For more information: Amanda Wardle 0437 001 522.
- Naracoorte Mill Quilters: A group of like-minded people that meet monthly to create, chat and share. New members are always welcome, especially beginners. Location: Naracoorte Presbyterian Church Hall Time: 9.30am-3pm Dates: 2nd Monday of the month. For more information: Phone 0427 189 862
- Naracoorte Men's Probus: Fun and friendship in retirement. Probus provides you with the opportunity to join a social club in Naracoorte to meet retirees on a regular basis, listen to interesting speakers and join together in activities. Location: Naracoorte Bowling Club on the 3rd Monday of the month at 9.30am For more information: Wayne 0429 647 455
- Naracoorte Ladies Probus: Billy Mac's , Naracoorte Hotel on the 4th Monday of the month at 10am For more information : Anna 0403 913 246
- Soroptimist International, Naracoorte Club This international service club for women focusses on issues relating to women and children worldwide in areas of health, education, and safety. Location: Bushman's Arms Hotel, Robertson Street, Time: 6pm for 6.30pm Dates: 4th Monday night of the month (except December) For more information: Phone 0456 562 521 or email sinaracoorte@siswp.org
- Card Making Classes Everyone welcome. Kits are prepared in advance for anyone attending, so bookings are essential. Location: CWA Hall, Sandstone Avenue Time: 12.30pm Dates: 15, 17 April, 20, 22 May, 17, 19 June For more information: Margaret 0438 886 424

TUESDAY

- Knitting Group: First and third Tuesday. Naracoorte Library, 10am-12pm. Join an informal knitting group to share ideas and learn from an experienced knitter. Beginners welcome.
- Naracoorte Highland Pipe Band: Everybody welcome, come along, join in, learn to play bagpipes or drums. Location: Various Time: 7pm-9pm Dates: Every Tuesday For more information: Phone Ed 0475 428 989
- Naracoorte Spinners and Weavers: New members welcome. Location: Sheep's Back Museum, Naracoorte Art Gallery (alternate months) Time: 9.30am-2.30pm Dates: Last Tuesday of the month For more information :Helen 0419 781 095
- Naracoorte Suicide Prevention Network: Everybody welcome. Location: Naracoorte Hotel Breakfast room Time: 7pm Dates: 1st Tuesday of the month
- Naracoorte Anglers Club: We encourage everyone interested in fishing to come along and share their experiences of their catches and the one that got away, after all it's not just about catching fish but having fun along the way. Location: Naracoorte Anglers Clubrooms, Park Terrace Time: 7.30pm Dates: 1st Tuesday of the month For more information: Phone Mandy 0427 623 344
- Naracoorte District Men's Shed: Everyone welcome. Location: 6 Sports Centre Drive, turn right in front of Basketball Stadium Time: From 9am-1pm Dates: Tuesday, Wednesday and Thursday For more information: Phone Harold 0459 621 687 or David 0439 253 526
- Naracoorte Embroiderers Guild: New members welcome. Location: Sheep's Back Museum Time: 9.30am-2.30pm Dates: 4th Tuesday of the month For more information: Phone Kaye 0431 961 005

WEDNESDAY

- Naracoorte Community Walking Group: Naracoorte Sound Shell Time: 9am Dates: Every Wednesday For more information: Contact Good Country Physiotherapy, 157 Smith Street, Naracoorte, phone 8762 1515
- Naracoorte Business Association: Come along and have your say - be involved. Location: Various locations Time: 6pm Dates: 2nd Wednesday of the month. For more information: email naralucbta@hotmail.com or phone 0429 063 816
- Captured Images Naracoorte Photography Club. Location: Naracoorte Art Gallery Time: 7.30 pm Dates: 2nd Wednesday of the month. For more information: Diana Vine 0427 838 814
- Naracoorte Men's Cancer Support Group. Location: Naracoorte Hotel Time: 10am Dates: 4th Wednesday of the month For more information: phone Bob 0419 831 601

THURSDAY

- Alcoholics Anonymous Naracoorte: Free. Located at rear of Church of Christ, Jenkins Terrace Time: 7.00pm Thursdays For more information: Contact 1300 222 222
- Ukulele Club: Everybody welcome, come along, join in, learn to play. Location: Naracoorte Hotel Breakfast Room Time: 7-9pm Dates: Every Thursday For more information: Phone Margaret 0407 608 079
- Naracoorte SA 4WD Club INC: New 4WDers welcome. Location: Anglers Clubrooms on Park Terrace Time: 6pm Sausage Sizzle, 7pm meeting starts Dates: 3rd Thursday of the month. Contact Peter Flavel 0428 838 454 or email pfia@bigpond.com

FRIDAY

- Walk the Limestone Coast- Friday Walks with Barefoot and Nourished- Nature Walking for Wellbeing. Location: Naracoorte Caves Range area Time: 9.30 - 10.30am. Dates: Every Friday For more information: 0408 086 792
- Canasta: The Naracoorte Canasta group invites you to come along and enjoy a friendly game of Canasta. New members welcome to join them for a social afternoon, which includes afternoon tea. Location: Senior Citizens Clubrooms, Sandstone Avenue Time: 12.45pm. Dates: Every Friday For more information: 87621399
- Acey Squares (Square Dancing): Square dancing beginners and mainstream levels. Families welcome, will hold instructions for beginners. Location: Naracoorte Lutheran Church Hall Time: 7.30–10.30pm. Dates: Every Friday For more information: Alan and Chris (08) 8762 3629

SATURDAY

- Market Day: Naracoorte Historic Vehicle Club Market Day. Local produce, Homemade Goods, Craftwares, Bric-A-Brac, BBQ/ Sausage sizzle. Historic Vehicle Display Open. Dates: Second Saturday of the Month Time: 8-11.30am Location: Sheep's Back Museum , MacDonnell St For more information: contact Daphne 0438 622 143
- Live Music: Relax and enjoy. Bookings essential. Cost: Free Location: Highlander Restaurant, William MacIntosh Time: From 7-9pm Dates: Last Saturday of the month For more information: Phone 8762 1644
- Naracoorte Lake Parkrun. Cost: Free Location: Naracoorte Swimming Lake, Moore Street Time: Pre-event briefing at 7.50am Dates: Every Saturday

SUNDAY

- Limestone Coast Remote Car Club: 1/8 and 1/10 off road. Spectators welcome free of charge. Location: Limestone Coast Remote Car Club Racing, Doolans Road. Time: Dates: 2nd Sunday of the month For more information: email lcrcmcc@live.com

ConocoPhillips

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Country Health Connect
Lucindale Community Nursing Service

Country Health Connect Community Nursing Service provides professional nursing care to people living and working in the Limestone Coast.

Our experienced nursing team works in the community to deliver a broad range of services. We work in your home or in one of our nursing clinics.

The aim of Community Nursing is to provide specialised short to medium term clinical care, tailored to individual health care needs, in order to avoid hospitalisation and/or support discharge from hospital.



Services available include:
- Catheter care / management
- Home oxygen management
- Medication administration
- Wound care / management
- Pathology

How to make an appointment:

For those living in the Lucindale area, you can call our Naracoorte team on:
8762 8160 (8.30 am – 4.30 pm)

Alternatively, you can be referred by your doctor or My Aged Care.
A small fee for services and some consumables costs may be incurred.

Community Nursing Services are available by appointment.

Please call **000** in case of an emergency.

COUNTRY HEALTH CONNECT

www.countryhealthconnect.sa.gov.au
Funded by the Australian Government Department of Health. Although funding for these services has been provided by the Australian Government, the material contained herein does not necessarily represent the views or policies of the Australian Government.

Government of South Australia
SA Health

12630244-JC38-23

Listen to cross-border towns

CHARLOTTE VARCOE
charlotte.varcoe@tbwtoday.com.au



Paula Gust will continue to advocate for cross-border communities going into the national Covid-19 inquiry. **Picture: FILE**

THE issues regarding the cross-border communities between the South Australian and Victorian border should be included in a nation-wide Covid-19 inquiry, according to cross-border advocate Paula Gust.

Last week, Prime Minister Anthony Albanese announced the federal government would fund a Covid-19 response inquiry and make recommendations to improve response measures during future pandemics.

As a whole, the inquiry is expected to look into a wide range of impacts from the pandemic across multiple portfolios and communities.

It will also consider the findings of previous relevant inquiries and reviews and also identify "knowledge gaps" for further investigation.

Mr Albanese has appointed an independent panel of three people to conduct the inquiry which will consult with relevant experts with a diverse range of backgrounds and lived experience.

Ms Gust - who was a vocal advocate for cross-border communities during the pandemic- told the Naracoorte Herald she believed cross-border issues "must be a prominent part" of the inquiry.

"Everyone thinks a pandemic would never happen again but we never thought it would happen in the first place," Ms Gust said.

"Nobody knew what they were doing and a lot of decisions were more reactive than proactive and nobody on the border was consulted regarding business, health, medical or schoolwise."

Ms Gust said she believed the issues of the cross-border communities should be a "major part" of the investigation in order to learn how to better deal with the issues in the future.

"The focus should be how it impacted border communities as I understand Melbourne's lockdown was long and horrible but they were still able to go and see a doctor or have their breasts screened," she said.

"Whereas we were trapped along the border not only from going across to where we would usually go but we were trapped because if we would go any further into Victoria we would lose our privilege.

"We were affected just as much as everywhere else especially the farming communities as it was quite cruel with just the testing."

Ms Gust said during the pandemic there were 26 weeks in a row where she got a Covid-19 test just so she could take her children to school or go grocery shopping.

"There was also a lot of segregation among the states because if you were from Victoria people did not want to stand next to you in the shops," she said.

"It brought up a lot of things in our society that we should not have had to deal with and Victorians along the border really protected a lot of South Australia.

"We were that line of protection and through us doing the right thing and going through continual testing we were stopping Covid from getting into the state."

Ms Gust said she would be "very surprised" and believed a lot of people would be "quite angry" if border communities were not included in the national inquiry.

She said even now the cross-border communities have ongoing mental health effects following the pandemic.

"There are so many people scarred from this and we don't have a very robust mental health system in those regional areas," she said.

"Add this on with people who have lost their jobs, had to change careers, we ourselves had to move interstate in the end but there was also the financial impact of businesses and families.

"It was really tough and there were also families who split up over it physically and with the pressure it put on everyone."

Ms Gust said she would put her cross-border advocate hat back on and ensure cross-border communities were included in the inquiry.

"I will be getting in touch with a couple of politicians to make sure cross-border communities are included as it is absurd it is even questioned.

"I would also like to know if anything has been done or assessed on how we can do it better as hopefully it is not needed but if we don't prepare for another pandemic it will be another knee-jerk reaction."

The panel is expected to deliver a final report to the government, including recommendations, by the end of September 2024.

ConocoPhillips

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Government of South Australia
SA Health

1263824-JC38-23

August 2023

NIT

NATIONAL INDIGENOUS TIMES

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Rainbow Dreamz

Mali Isabel is painting a pathway

LIFESTYLE STARTS PAGE 9

LAW MOVE AFFECTS MORE KIDS

QLD GOES AGAINST RIGHTS ACT ON DETENTION

DECHLAN BRENNAN

The Queensland Government has introduced legislation that is incompatible with human rights, for the second time this year, with the changes expected to disproportionately impact Indigenous children.

The legislation — implemented to allow children to be imprisoned in police watchhouses designed for adults — was introduced by the State's Police Minister Mark Ryan last Wednesday.

It will require a suspension of the State's Human Rights Act.

Change the Record national director, Gunggari advocate Maggie Munn, said the decision to put through amendments to an unrelated Bill was "outrageous and deliberately harmful".

"This is now the second time Queensland has suspended its Human Rights Act to criminalise and punish children in this State. Incarcerating children whether in prisons or watch houses is harmful, the Government knows this and yet continues to enforce these conditions," they told National Indigenous Times.

"To have a legal instrument like a human rights act in place means there should be protections, but if governments can decide to suspend those protections, it's the most vulnerable people who suffer."

In the Bill's notes, Mr Ryan said the change was necessary to guarantee that "immediate capacity issues" in the State's

CONTINUED PAGE 5



Queensland Police Minister Mark Ryan introduced the Bill amendments on kids in watchhouses.

A

CALLAN MORSE

Prime Minister Anthony Albanese plans to announce the date of the Voice to Parliament referendum on Wednesday.

Set to be made at an event in Adelaide, the announcement will be held in the same State the Yes campaign launched in earlier this year, suggesting the Government believes South Australia looms as a key battleground.

Australia's only other referendum specifically relating to First Nations Australians, the successful 1967 referendum which asked for Indigenous people to be counted as part of the population and empowered the Commonwealth to make laws for them, was also launched in South Australia.

Previously suggesting the referendum will be held in October or November, speculation has arisen the vote will be held on October 14 based on Mr Albanese's travel commitments in the coming months.

"Very soon, our nation will have a once-in-a-generation chance to recognise Aboriginal and Torres Strait Islander people in our constitution — and make a positive difference to their lives with a voice," Mr Albanese said last week.

"I will be campaigning for constitutional recognition. Because if not now, when?"

An October 14 referendum date would allow for a six-week campaign before Australians decide whether to enshrine an Indigenous Voice in Australia's constitution.

Preceding referendum date, the Australian Electoral Commission will deliver nearly 13 million Voice referendum pamphlets to Australian households and other residences.

Distribution of the 20-page document, which details both the Yes and No case, has begun and coincides with the AEC's Your Answer Matters advertising campaign, designed to educate voters ahead of referendum day.

"This is one of the nation's, and the AEC's largest printing

CONTINUED PAGE 5

Bail Act lacks clarity: VALS



DECHLAN BRENNAN

Indigenous and legal groups have commended the Victorian Government for introducing bail reform legislation but warn that it does not go far enough.

Attorney-General Jaclyn Symes introduced legislation into Parliament on August 15 in a bid to reduce unnecessary remand for people accused of low-level offending.

Under the reforms, low-level offenders would find it easier to receive bail and people who committed crimes unlikely to result in a custodial sentence would not be remanded in jail while awaiting sentencing.

"These offences were introduced in 2013 and have been shown to disproportionately impact women, children and Aboriginal people with no clear deterrent benefit or improvement to community safety," the Victorian Government said.

Bail reforms would also redefine "unacceptable risk" so a court wouldn't refuse bail over a risk of minor reoffending.

However, various legal groups have argued that while scrapping certain provisions is a step in the right direction, the reforms do not go far enough.

The Victorian Aboriginal Legal Service said it was "concerning" the Government was proposing only a slight modification of the reverse onus provision, given it is incompatible with the Victorian Charter of Human Rights and Responsibilities Act.

"We are also concerned that the Victorian Government's Bill will make the Bail Act more complicated, rather than making it simple and clear so that it can function more effectively," the VALS statement said.

VALS chief executive, Yorta Yorta and Narrandjeri woman Nerita Waight, said the changes were a small step in the right direction.

"This is a first small step towards ending the damage that Victoria's bail laws have done over the last five years particularly," Ms Waight said.

"There have been three bail Bills before this in the last decade and the Government has admitted that there were mistakes in all of them. They should accept that they probably haven't got this one right either and set a timeline for reviewing the Bill in the legislation."

Referring to Veronica Nelson, whose death in custody in 2020 was deemed preventable by the Coroner and led to calls for an urgent review of the bail act, Ms Waight said Ms Nelson's family had played a significant part in the reforms.

"Veronica is the reason the Government is changing the bail laws. All the Parliament should centre her story when they debate the Bill and be respectful of her family," she said.

"Veronica's family have been clear on asking for changes to the bail laws and I hope the Parliament will ensure the Bill reflects the family's wishes.

"There are some good changes thanks to the advocacy of Veronica's family, especially in relation to removing bail offences, making it easier for children to get bail, and changes to reduce the over-incarceration of Aboriginal people."

The Bill delays implementation of reforms by six months, which the Human Rights Law Centre says will see thousands of people continue to be funnelled into Victoria's prisons.

The family of Ms Nelson have previously called on the Victorian Government to implement "urgent, wholesale changes" to the bail laws in the next three months and for these reforms to be known as Poccum's (Veronica Nelson's childhood nickname) Law.

Amala Ramarathinam, acting manager lawyer at the Human Rights Law Centre, said the Andrews Government had acknowledged the failures of the bail laws, but was still failing to take all the action required.

The Law Institute of Victoria's president, Tania Wolff, said more work on the reforms was required.

The Victorian Government has been contacted for comment.

A

DECHLAN BRENNAN

Social media giant Meta has been criticised for its response to people making racist comments on its platform.

Meta, which owns Facebook and Instagram, received complaints about racist commentary on the platform from the First Peoples' Assembly of Victoria in March.

The First Nations body met a Meta representative; but the comments have not abated.

Assembly co-chair and proud



Gunditjmara man Rueben Berg said the announcement the Federal Liberal Party would oppose the Voice to Parliament coincided with a surge in abuse.

"Since Peter Dutton announced that his party would campaign for a No vote, we've seen a dramatic rise in racist abuse and hatred directed at First Peoples, both online and in everyday life," Mr Berg said. "The No case is really emboldening the trolls and bigots. Our Assembly Facebook page went from getting a handful of racist comments a week to our staff having to report and block hundreds of people every week.

"So, we started our petition calling on Facebook owner Meta to do better in order to help protect the mental health and wellbeing of First Peoples during the referendum."

The Assembly said since meeting Meta, many racist comments have been reported.

Comments such as "feral Abos" and "black k..ts" were deemed to have not breached Facebook's community standards and no action was taken.

A Meta spokesperson told National Indigenous Times that "no one should have to experience racist abuse anywhere".

"We are sorry to hear that the First Nations Assembly of Victoria is still receiving racist comments on their accounts," they said. "When they raised a complaint with us earlier in the year, we investigated it thoroughly and took action. It was our understanding that we had responded to and addressed their concerns. We will be following up with them to understand what more we can do to support them."

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Supply Nation CERTIFIED

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ConocoPhillips

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Federal Court grants Native Title in Chillagoe

Historic day for Wakaman People









JESS WHALER

The Wakaman People of Far North Queensland were granted Native Title rights by the Federal Court of Australia this month, via a determination providing the right to access and care for Country extending over 14,861sqkm of land in Chillagoe.

After a more than 20-year fight for land rights, Justice Berna Collier presented recognition to the Wakaman People during a ceremonial on-Country sitting on Wakaman Country on August 18.

The Federal Court accepted and acknowledged the Wakaman People's proven, unbroken connection to more than 715,000ha of their traditional homelands.

Despite the devastating history of being removed from their land and restricted from practising culture during the aggressive colonisation period, the Wakaman People have maintained a strong connection to their country.

State member for Cook Cynthia Lui noted that "Aboriginal people have inhabited this area of Queensland for over 25,000 years".

"It's been a long road for the Wakaman People to have their claims recognised and I hope the determination gives them a sense of peace," she said.

"Being able to maintain their traditional lands and ensure the cultural practices, skills and stories are passed on to the next generation is a wonderful thing."

Queensland Minister for Resources Scott Stewart said the recognition of native title is "a fundamental step in changing the relationship between the Queensland Government and our First Nations communities".

"We are fortunate in Queensland to be home to two of the longest, continuing cultures in history, in the Aboriginal cultures and Torres Strait Islander cultures," he said.

Represented by the North Queensland Land Council, the applicants of the claim were Wakaman People — Mr John Alvoen, Mr William Thomas, Ms Robyn Hooley, Ms Raelene Madigan and Ms Carol Payne.

Robyn Hooley said the determination "means everything".

"It's been a long process. The sacrifice my family made and their contribution to getting recognition to country, it makes me feel very proud that we finally achieved a good outcome," she said.

Wakaman man William (Billy) Thomas said: "We have been going back to country and teaching my children, nephews and grandchildren about country, about what's on the river and land."

"We teach them about hunting and fishing, showing country and sacred sites, like my mother did with me. We can continue doing this, that's why it means a lot to me," he said.

"The Tate River is special to me, as that's where my mother was born."

Maintaining their traditional lands ensures the Wakaman People can continue to pass these cultural practices, skills and stories on to the younger generations.

The North Queensland Land Council said the decision was welcomed and congratulated the Wakaman People on this momentous occasion.

AEC rolls out campaign to inform public about referendum

CALLAN MORSE

The Australian Electoral Commission has started the main phase of its referendum education campaign with the launch of Your Answer Matters.

Reminding voters that their answer matters in the lead up to the Voice to Parliament referendum, the campaign will have a dedicated website and will be shown on TV, online and in the press with the aim of assisting Australians to get "vote ready".

Your Answer Matters will provide a range of information resources as well as translated and accessible material. Australian Electoral Commissioner Tom Rogers said the campaign is deliberately starting before the referendum voting date is announced.

"It's been 24 years since we last had a referendum," Mr Rogers said.

"Approximately 6.4 million enrolled Australians weren't of voting age when we had our most recent referendum in 1999 — for a lot of people the role of a referendum won't be familiar.

"This campaign ramps up the public education we've been doing all year, educating Australians about the importance of referendums and how to cast a formal vote."

With record growth in general, Indigenous and youth enrolment rates, the campaign will continue encouraging voters to update their enrolment details or enrol to vote.

Memories spur language fight



Patsy Bedford, and inset left, Obby Bedford. Pictures: Rhiannon Clarke

JARRED CROSS

A half-century old memory still brings tears to the eyes of Bunuba Elder Patsy Bedford.

At 15, in the night, she was driven from Derby to Halls Creek, crossing the Kimberley and the river at her birthplace in Fitzroy Crossing.

She said the Department of Native Welfare made the journey in the dark "so that I wouldn't see my country and my siblings".

Her first years were spent by the river with her people and surrounding tribes. By five, her family were moved west to Ellendale Station and later to Derby.

At nine, "because of the colour of my skin", the department removed her from her parents to a hostel for schooling with teachers who "had no real interest in teaching us" and without the opportunity to visit her family.

Aunty Patsy said up until that time she was out in her true classroom "learning about survival on the land, learning about bush medicine, bush tucker and about country".

"I never spoke English until I was about eight," she told National Indigenous Times.

"At the hostel we weren't allowed to speak our language."

Her siblings were later made State wards and taken to the mission in Fitzroy Crossing.

Soon after, the journey to Halls Creek with the Department followed, being told a job waited for her.

It was there she met her future husband, had her children, was reconnected with her brother, and made occasional visits to Fitzroy and to see her Bunuba family before permanently returning home.



Now in her 70s, some of the details of her early years are foggy – and, like many Elders across the country, she's never had a birth certificate.

The difficulties which come without this kind of documentation are varied. People in her community are made to go through onerous processes — often needing a Justice of the Peace, which Patsy has become.

Patsy knows she was born with her name Ngalu and to her skin group Nyanjili. Multiple anthropology reports she has since recovered recorded her "as a half-caste child" under multiple first names.

"I don't know how I got Patsy. I will never do research to find out where Patsy came into this whole picture," she said.

She said memories of her earlier years will never leave her. They're "still raw and still hurt".

"That's my history. And I'm back in Fitzroy. I chair the Kimberley Language Resource Centre, and I fight for languages," Aunty Patsy said.

She is also a board member of Language Policy Partnership, a group made up of Coalition of Peak leaders.

Her granddaughter Obby Bedford has joined her in the pursuit of seeing generations grow up with a tradition inseparable from culture.

There are five language groups around Fitzroy; Bunuba, Gooniyandi, Wangkatjungka, Walmajarri and Nyikina.

Ms Bedford told the National Indigenous Times there was a time when she was young where her grandmother only spoke to her in Bunuba.

She spent her school and university years living in Melbourne, where she lost big pieces of this language and was at times mocked for using it.

Now 25, the move back home to Fitzroy Crossing was done to be reconnected with "language and culture".

"If we don't act now, then we're going to lose language. We're going to lose fluent language. I came back . . . so that I could learn it for myself from people who were still speaking it fluently, as it was their first language, so that I can pass it down as well," Ms Bedford said.

Aunty Patsy still sees funding and power to decide where resources go as a hurdle.

"The Government expects you to bring in a qualified linguist," Patsy said. "That's a big insult to people like myself and other community linguists right across the Kimberley who read and write the language."



Amendment to Bill allows kids held in watchhouse

FROM PAGE 1

prison system could be rectified.

"It is not intended to make acceptable the long-term use of watchhouse or corrective services facilities for young people."

The amendments come after the Queensland Supreme Court on August 18 ordered the urgent transfer of three children who were detained in police watchhouses, after the State Government conceded it had no lawful basis to detain them.

The Bill was initially introduced to amend reporting obligations for sex offenders and includes decriminalising public drunkenness, preventing police from surveillance of sex workers, and reforming police disciplinary processes.

Queensland Greens MP Michael Berkman called the decision an "absolute dog act".

"I've just seen one of the most disgraceful acts from Qld Labor since I was elected," he tweeted last Wednesday. "At 3.30pm, they moved 57 pages of amendments to an unrelated Bill w(ith) 30 mins for debate. They suspend the Human Rights Act to allow children to be kept in watch houses & adult prisons."

Queensland has the highest youth jail population in the country. In June, data showed of the 169 children charged under recently introduced offences, 112 were Indigenous. Debbie Kilroy, chief executive of Sisters Inside, told Guardian Australia the decision means the community "will also be harmed".

"It's time to reimagine communities with funding taken away from police and prisons so we can develop our own modes of safety and security," she said.

This is the second time the Labor Government has had to breach its human rights charter in order to pass legislation.

Earlier this year, it passed legislation that made breach of bail for children a criminal offence, which Mr Ryan spruiked as the "toughest in the country".

At the time, Queensland's human rights commissioner Scott McDougall stated "the measures introduced are predicated on a flawed perception that recidivist children will respond positively to punitive measures.

"I am unaware of any evidence that increased maximum penalties of imprisonment will deter a child from engaging in risk-taking behaviour," Mr McDougall said.

In June, Youth Advocacy Centre chief executive Katherine Hayes it was seeing children plead guilty to avoid spending time in detention.

"We have seen children plead guilty to charges because they are less likely to receive a sentence. If they are on remand, they are highly likely to be held in detention — often for months," she said, noting young people are kept in detention for crimes unlikely to carry a custodial sentence.

Martu Native title ruling is welcomed

GIOVANNI TORRE

The Martu people of the Western Desert, WA, took another step last Thursday in their long battle for Native title over their Traditional lands.

Martu celebrated as the Federal Court in Perth made its declaration on the Martu #3 Native title claim.

Martu applicant Kennedy Finlay and Jamukurnu-Yapalikurnu Aboriginal Corporation (JYAC) representatives were in the Federal Court to witness the determination.

The Martu #3 claim picks up a number of small to medium blocks along the western boundary of Martu ngurra (country).

The WA Government accepted the Martu people are the right people for that claim area and agreed to a consent determination of Native title.

The Wanajarra and Yina (Elders) Council and meetings of Martu common law holders have talked about getting all of Martu ngurra into the determination for many years.

Martu focus is now turning to Karlamilyi National Park — the largest national park in WA and the subject of a protracted negotiation with the State Government.

Mr Finlay said: "We are very happy today that governments and the court have agreed this land belongs to Martu."

"Our ancestors cared for this land, and then gave us the responsibility.

"We will use our native title rights to care for country and keep our culture strong."

JYAC chairperson Simon Frank said Western Desert lands were important for all Martu families.

"We have our culture and spirits in that ngurra," he said.

"Martu want to use the land properly — we will protect ngurra that must be kept safe and we will do mining and other business where that's agreed.

"The country is important to us for the culture, for the environment, and for economic opportunities. This has been our ngurra since before time."



Terrance Jack, Olivia Wilson, named applicant Kennedy Finlay and JYAC legal Rewi Lyall. Picture: JYAC

Jamukurnu-Yapalikurnu Aboriginal Corporation chief executive Tony McRae said Martu exclusive possession native title rights put Martu "in a strong position to control access to their land".

"JYAC is the trustee (land council) for Martu rights and we ensure any activities on country are done under binding agreements. This gives Martu control over country and gives land users the certainty they want to do business," he said.

"The JYAC board has strong instructions from Martu to now focus on getting Karlamilyi back in Martu hands. Martu have waited more than 46 years to get this country back.

"Premier Charles Court declared that sacred part of Martu ngurra a national park without any consultation and Martu have been fighting to get it back ever since. It is a great injustice that must not be allowed to just drift along. Justice delayed is justice denied."

C

FROM PAGE 1

and distribution jobs so it'll take time for all deliveries to occur — delivery is getting under way shortly and will be completed by mid-late September," AEC commissioner Tom Rogers said.

As referendum day nears, the Voice debate dominated the recent Conservative Political Action Conference (CPAC) Australia event, which sparked a backlash after guest speakers made derogatory comments about Indigenous culture and praised assimilation.

The conference, chaired by No campaigner Nyunggai Warren Mundine, hosted a range of anti-Voice speakers, including Senator Jacinta Nampijinpa Price, former prime minister Tony Abbott, Advance Director Matthew Sheahan and former Liberal MP Bronwyn Bishop.

During the two-day event, Recognise a Better Way committee member Gary Johns urged assimilation of Aboriginal communities, claiming some in Indigenous communities lived in a "stupor", and recommended they "learn English" if they wanted a voice.

Earlier, self-described "hoax speaker and corporate impostor" Rodney Marks, as character "Dr Chaim Tsibos", addressed the event for 25 minutes, beginning by mocking the Acknowledgement of Country.

"I'd like to acknowledge the traditional rent-seekers, past, present and emerging," he said, before smearing Traditional Owners as "violent black men".

"I hope there are some real feminists in the audience who appreciate the part-truth of that joke," he said, before describing Indigenous leader Bennelong as a "woman-basher".

Megan Davis and Aunty Pat Anderson AO of the Uluru Dialogue issued a statement in response in which they urged the No campaign to stop "racist jokes and misinformation".

"Sadly, this sort of abuse is not uncommon on social media, weaponised by trolls and sham accounts that the No campaign does little to nothing to discourage or condemn," the statement said.

"Our young people around the country will be seeing supposed jokes on their social media feeds portraying Indigenous Australians as 'rent-seekers', 'violent' and 'woman-bashers'."

Call to UN over WA mess

DAVID PRESTIPINO

The United Nations Committee on the Elimination of Racial Discrimination has been urged to take a stance on Western Australia's bungled attempt to reform Aboriginal cultural heritage protection.

A letter sent to UNCERD chair Varene Shepherd this month by Environmental Defenders Office members Slim Parker, Kado Muir, Dr Anne Poelina, Clayton Lewis and Hannah McGlade raised the group's serious concerns about WA's cultural heritage law reform process and requested the international organisation make a formal decision on the matter.

The WA Government admitted it "took things too far" as it announced earlier this month it would revert to the 1972 laws covering Aboriginal cultural heritage in WA, which were in force when Rio Tinto destroyed sacred rock shelters at Juukan Gorge in 2020.

Premier Roger Cook said tweaks to the 50-year-old Act would prevent another catastrophe like the mining titan's and apologised for the stress, confusion and division the new laws had created.



But Dr McGlade, a Curtin University school of law associate professor and expert member of the UN Permanent Forum on Indigenous Issues, said the group was extremely concerned at the lack of Aboriginal consultation before the Act was repealed.

"It's very disappointing the WA Government under Premier Cook's leadership has once again shown failure to respect Indigenous peoples' right to cultural heritage under the frantic legislative reforms passed recently," Dr McGlade said.

The Permanent Forum is an advisory body to the UN's Economic and Social Council and has the mandate to discuss Indigenous issues related to economic and social development, culture, the environment, education, health and human rights.

Dr McGlade, pictured, a Noongar human rights lawyer and academic who has published on many aspects of First Nations legal issues, said the latest change to legislation in WA did not constitute effective remedy.

"The Bill gives Aboriginal Affairs Minister Tony Buti further rights to intervene and 'call in' appeals from the State Administrative Tribunal, thereby allowing the Premier to determine the matter and removing the right to be heard by the tribunal," part of the letter to the UN said.

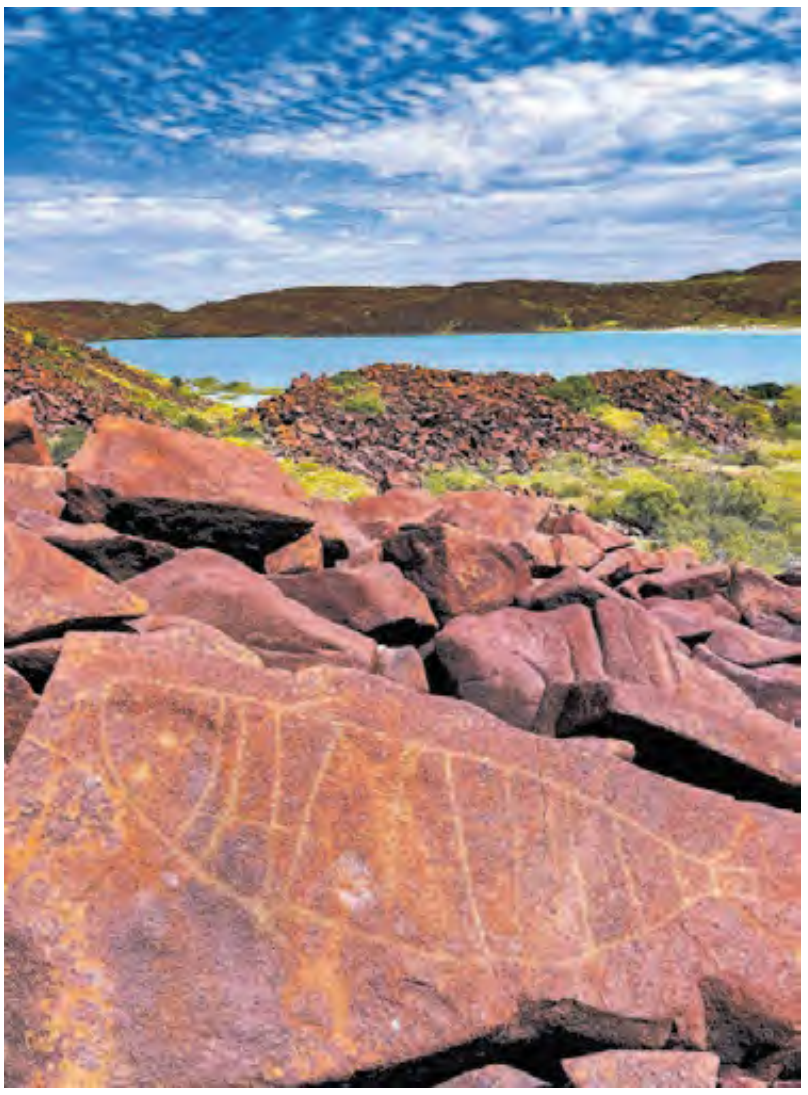
"We also note the SAT has no expertise in Aboriginal cultural heritage and fails to even include Aboriginal members in the tribunal composition, therefore this is also problematic and unacceptable."

The EDO is not the only organisation concerned at the lack of consultation with First Nations organisations, with prominent bodies such as the Kimberley Land Council and the Puutu Kunti Kurrama and Pinikura Aboriginal Corporation, whose sacred caves Rio Tinto destroyed, also claiming they were not part of discussions the Cook Government had with industry and stakeholders, including miners and farmers, before repealing the Act last week.

PKKP land and heritage manager Jordan Ralph said reverting to the culturally inappropriate 1972 legislation was among the worst outcomes for Aboriginal cultural heritage protection and has demanded Dr Buti clarify a range of issues.

"First Nations people are being treated as second-class citizens in their own Country," Dr Ralph said.

The letter to the UN outlined the EDO's position that Australia's approach to cultural heritage protection should be pursued at a national level by the Albanese Government.



Murujuga is a culturally significant site in WA's North West. Picture: A. Stevens. Supplied by Murujuga Aboriginal Corporation.



Video shows teen with disability knocked down by officer



Probe into violent arrest

CALLAN MORSE

A NSW police officer involved in the violent arrest of an Indigenous teenager earlier this month has been placed on restricted duties.

The 18-year-old, who lives with a disability, was arrested in the mid-north coast town of Taree on Tuesday, August 15.

The officer was put on restricted duties after NSW Police launched an internal investigation, sparked by videos of the arrest on social media, described as "difficult to watch" by NSW Police Minister Yasmin Catley.

One of the videos appears to show the plain-clothes officer perform a leg sweep manoeuvre, knocking the teenager to the ground.

A second video shows the pair fall to the ground, before the teenager appears to have a seizure. The officer then pulls the teenager upright before he is handcuffed.

The teenager was later charged with being in possession of suspected stolen goods, and was refused bail in Taree local court. He is set to return to court next month.

The teenager's aunt told Guardian Australia her nephew said he thought he was going to die after the arrest. "He said, 'I thought I was dying in the cell last night'. He said 'I couldn't move'. No one deserves to be treated like that," she said.

The teenager's aunt said the wellbeing of her nephew, who has foetal alcohol spectrum disorder and attention deficit hyperactivity disorder, was not taken into consideration during the arrest.

"There were other ways they could have dealt with him. He wasn't resisting arrest or anything," she said.

"They nearly broke this little boy's arm. This little fella was having seizures and they didn't even have the courtesy to ring an ambulance."

She said her nephew hit his head during the arrest, resulting in a cut on his head.

Greens NSW MP and spokesperson for justice Sue Higginson renewed calls for a parliamentary inquiry into NSW Police, labelling the the teen's treatment "shocking".

"A vulnerable person was experiencing a medical episode and the police responded with violence instead of calling an ambulance," she said.

"This is completely unacceptable and shows us once again that we do have a police problem in this State.

"NSW Police have announced an internal investigation which goes nowhere near what is needed to deal with the systemic issues that allow this to happen."

Ms Catley confirmed the officer was on restricted duties while an investigation was under way. "I acknowledge the video that's circulating is difficult to watch. That's why this investigation will consider the police response and arrest. I cannot comment further while this takes place," the minister said.

NSW Manning-Great Lakes Police District said it would investigate the "response and arrest . . . by a police officer".

The incident has drawn parallels to a previous case involving a NSW police officer, who was found guilty of assaulting a 16-year-old Indigenous boy in 2020 after performing a similar leg sweep manoeuvre.

Ms Higginson said NSW Police were experiencing a "substantive deficit" in their ability to respond to vulnerable people, such as First Nations Australians, calling for further action and an inquiry to address the "alarming number of violent incidents involving NSW Police and vulnerable people".

"We know we have good people in the NSW Police force, but it's not enough to leave this important work up to them. The Government must act."

Thorpe says cancel Voice vote

JESS WHALER

Independent senator Lidia Thorpe called for the Voice to Parliament referendum to be called off in her address to the National Press Club in Canberra this month.

The Djab Wurrung, Gunnai and Gunditjmara woman said the Voice proposal does not go far enough, and urged all Australians to look through the lens of First Nations Peoples.

The senator also spoke on the Frontier Wars, noting: "It was a sport to shoot blacks, a sport to shoot blacks, my people", and adding that the wars have never ended.

"Same war, different weapons, the same domination of First Peoples for access to our land and resources," she said.

"Our people are still rounded up and locked into cages at the highest rates in the entire world."

She paid tribute to the strong line of Aboriginal female activists and ancestors from which she came.

Ms Thorpe called for Treaty, for legislation in line with the United Nations Declaration on the Rights of Indigenous People (UNDRIP), and for the referendum to be called off. "Adhering to the UNDRIP would do vastly more for our people than any voice," she said.

"We're talking about almost 250 years of invasion, disease, murder, theft, destruction, poisoning waterholes, poisoning trees, 250 years almost.

"(It's) 2023 and all they have to offer is a powerless little advisory body with parliamentary supremacy over it at all times."

Ms Thorpe said First Nations people deserve more than what is being offered, which she referred to as "false hope".

"That's another insult to our intelligence. That's an insult to our ancestors. And all of our people who passed in every prison, in every institution," Ms Thorpe said.

"It's an insult, because it's not good enough, after 200 years, that we just get offered a powerless advisory. It's not good enough," she said.

Ms Thorpe invited the Australian people to stand with First Nations people, to stand up for what matters.

"I want to see Federal leadership on the conversation. I think that the King has to be at the table," she said.

Ms Thorpe noted First Nations' connection to and care for country.

"We are the oldest continuing living culture on the planet. Surely that's something to be proud of," she said.

"We have lived through ice ages, countless fires, droughts and floods. We know how to care for country, but we are not allowed to do so."

Prime Minister Anthony Albanese later told a press conference that a Yes vote would "advance reconciliation".

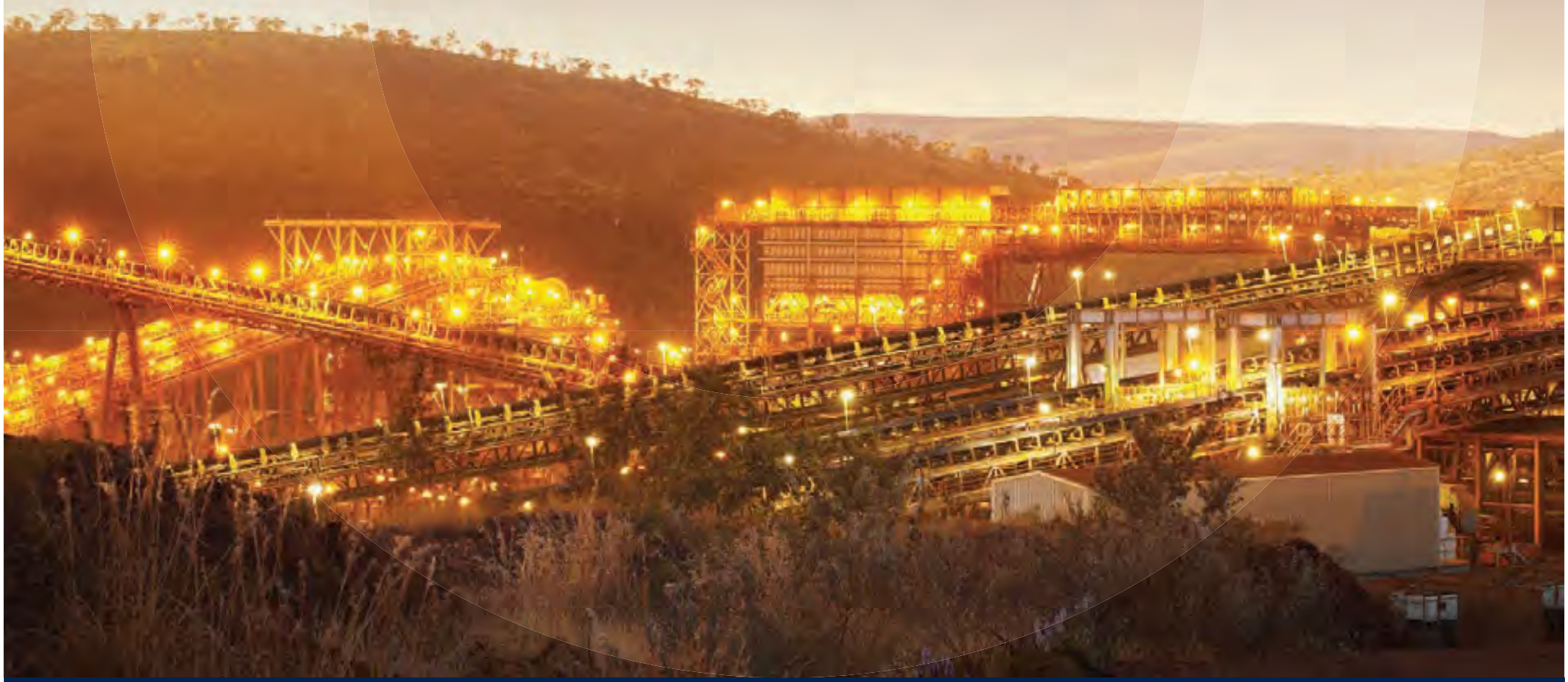
"And that is doable from my perspective. Everyone will come to their own decision. From my perspective I fail to see how other issues will be advanced if a No vote is recorded," he said.



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STYLEUP

FASHION, BEAUTY & LIFESTYLE



Painting a pathway

With Mali Isabel
Pages 12-13

Picture: Weronika Mamot

ALSO INSIDE
DAAF talent and stories **Page 12**
Kamara triumphs in Brisbane **Page 14**

IN PARTNERSHIP WITH MINERAL RESOURCES

E

FROM THE EDITOR

It has been a colourful month for our Style Up team, fitting given this is certainly a colourful edition.

The team attended the Darwin Aboriginal Arts Fair where Country Road denim was worn and much talent seen.

This included the Country to Couture runway, National Indigenous Fashion awards and the overall Darwin Arts Fair where dancers performed and stories were showcased.

The music awards were also held. Our fashion journalist attended the Brisbane Fashion Festival and we sadly said our goodbyes to our social media intern who filled in by holding down the fort in the online world during our director's absence.

It has been another month when we have grown and adapted. I look forward to the coming weeks when I will be attending fashion weeks around the world and providing you with more talent and inspiration.





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PHOEBE BLOGG

After making headlines with its recent Country to Couture runway presentation — which featured watercolour-splashed and dyed clothing — Iltja Ntjarra Art Centre is injecting elements of fun and experimentation back into the fashion industry.

Using a talented team of local Indigenous artists has had the not-for-profit art centre fuse fashion with cultural relevance, artistic expression and bold experimentation.

"Iltja/hands Ntjarra/many, implies the coming together of different Western Aranda family groups," project manager Koren Wheatley said.

"Iltja Ntjarra/Many Hands is the home of the Hermannsburg School of Art, a transformational Central Australian art movement instigated by Albert Namatjira. "Here at the art centre, the Pareroultja, Malbunka, Inkamala, Rununtja, Coulthard, Namatjira, Wheeler and Ebatarinja families work side by side to create powerful interpretations of their custodial country. Many hands and many families coming together to represent culture and country," Wheatley said.

With Albert Namatjira's legacy at the core of everything the centre's artists create, it only seemed natural that continuing his legacy would see the centre's artists experiment with watercolour.

"As the craft of watercolour, especially landscape, is incredibly challenging and at times overwhelming, this project was an opportunity to engage younger emerging artists by encouraging them to explore their interest in textile design as a creative medium.

"The new generation of watercolour artists are innovative, explorative and are guiding the Hermannsburg School of Art movement in their own direction by speaking to what influences their lives in this current social environment and life as they experience it," Wheatley said.

Iltja Njtarra's senior artists and mentors Dellina Inkamala and Vanessa Inkamala, along with emerging Iltja Ntjarra artists, Dianne Inkamala, Delray Inkamala and Mandy Malbunka worked in collaboration with APM Employment and Disability services participants, Rhonda Jones, Teresa Wilson, Lucinda Forrest, Amanda Long and Leah Johnson.

The collection itself was led by Wheatley in the capacity of designer, with the help of seamstress Nghia Pham.

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PHOEBE BLOGG

Artists get the chance to profit in d namic setting

SHAHNA SMITH



Entering the vibrant scene at the Darwin Convention Centre, attendees were immediately embraced by a dynamic display of Indigenous culture. The air buzzed with an infectious blend of excitement and reverence, setting the tone for an unforgettable experience.

Navigating the diverse array of booths, a ray of colours and textures greeted visitors courtesy of more than 70 talented Indigenous artists. The artwork, ranging from captivating paintings depicting Dreamtime narratives to meticulously crafted homewares and rugs, held an irresistible allure. From a small $4000 budget in its first year to having up to 10 employees now, Style Up spoke to DAAF's Tikesa Docherty-Cole about the exponential growth.

"It's very special," she said. "It has come a long way. We had seven new art centres apply to be part of DAAF showing that as we grow, there are new art centres popping up that we can continue to support."

What truly distinguished DAAF was the opportunity to engage with the artists.

The fair's commitment to allowing 100 per cent of sales to the artists fostered an ethical and empowering trade environment.

Live performances elevated the ambience, infusing traditional dance and music with vitality.

Indigenous creatives weave traditional with contemporary

PHOEBE BLOGG

After months of anticipation and excitement, the National Indigenous Fashion Awards have finally crowned their winners.

Taking place at Darwin's Deckchair Cinema on August 9, this year's NIFA awards attracted a sellout crowd.

Breaking records with more than 60 nominees, this year's awards celebrated and supported the industry's top-performing Indigenous creatives.

Proudly presented by Darwin Aboriginal Art Fair and Indigenous Fashion Projects, this year's awards event also partnered with the Northern Territory Government to showcase creative excellence across six categories.

Rowena Morgan of Nagula Jarndu took out the textile design award, Yarrenyty Arltere Artists' Rhonda Sharpe went home with the wearable art award and Wiradjuri Gangulu and Yorta woman Lillardia Briggs-Houston was crowned with the fashion designer award.



Gapuwiyak Culture & Arts artists won the traditional adornment award, Gapuwiyak Culture & Arts X's Aly de Groot walked away with the community collaboration award and Ikuntji Artists won the business achievement award.

"The work of this year's winners all carry such a beautiful weaving together of traditional and contemporary practice imbued with deep connection, pride and love of country and community," said Indigenous Fashion Projects manager Michelle Maynard.

"I think they really represent the heart of our people."

The winners will each receive a range of tailored funding, mentorships and other opportunities available through Indigenous Fashion Projects and presenting partners.

Judges at the awards included Yatu Widders Hunt, Lisa Waup, Nimmi Premaratne and Perina Drummond.

C

SHAHNA SMITH

Nestled in the heart of South Australia, Mali Isabel is painting waves in the world of contemporary art with her vibrant creations. Her artwork is a testament to her deep-rooted cultural pride, her values of peace and equity, and her unyielding positivity.

A proud Arabana-Kokatha woman from Port Augusta, Isabel's upbringing in Adelaide was shaped by her multicultural surroundings.

"I have always felt people assumed I would be embarrassed or ashamed of my culture, and I often left them confused when they realised I embraced my heritage with unwavering pride," she says.

Frequently the only Aboriginal child in her community, Isabel chose to break stereotypes and shatter assumptions.

Her artistic journey began early in life as she explored various outlets for her creativity.

"When I pick up a paint brush, it's like the world and time no longer exist and I can forget the worries in the world," she said.

Graduating with a degree in primary education, majoring in visual arts, Isabel initially intended to pursue teaching.

But her passion for art took precedence. In a leap of faith, she dedicated a year to honouring her craft. Ultimately it led to the establishment of her successful business, Mali Isabel Art. "At the start of 2021, I secured a coveted studio residency at Carclew and spent the majority of my time developing my practice and artistic style," she says.

A hallmark of Isabel's art is her exceptional use of colour, which is not only visually striking but also carries deep significance.

"Each hue and shade captures the essence of how I am feeling at a particular moment in time," she says.

Her use of rainbow colours serves as a symbol of her commitment to achieving equality for all and breaking traditional moulds in Aboriginal art in a positive way.

Drawing inspiration from nature, memories, music and human emotions, Isabel's art seamlessly blends reality and fantasy. "I want to evoke a sense of wonder and awe, reminding others that magic exists in both the grand and subtle moments of life," she says.



Aura Objects — Panton chair by Verner Panton in glacier blue $660; Lexi — Cruz dress in turquoise $499; Luminous Assembly — Maya pumps $189; This Wee Piggy for Leonard St — Blossom earrings $35

Her approach bridges the gap between tradition and contemporary expression.

"It shows the richness and versatility that our heritage offers, especially for other artists like myself who have been raised in the modern world."

The pinnacle of Isabel's journey so far is her role as the poster artist for the 2022 Adelaide Fringe Festival. She is the first Aboriginal person to receive this honour in the festival's 62-year history. And 95 per cent of artworks from her solo exhibition, Rainbow Dreamz, sold.

"This was a huge milestone for me, because it meant the risk I took on for my art was truly worth it all," she says.

Her artwork has also graced the pages of British Vogue.

For aspiring artists, Isabel's journey serves as a beacon of inspiration. She advises embracing opportunities, remaining persistent in the face of challenges, unleashing one's uniqueness, prioritising self-discovery, and above all pursuing personal happiness.

Isabel exemplifies the transformative power of art, the celebration of identity and the impact of positive representation.

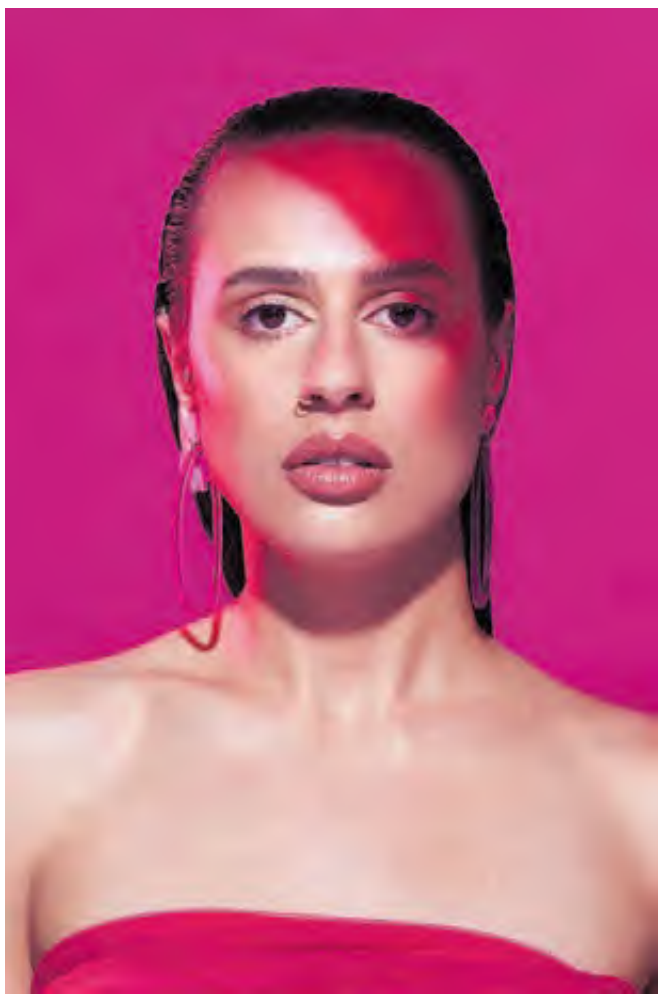
"I aim to build a community where individuals can immerse themselves in a world that celebrates the beauty of life and encourages connection and compassion," she said.

Her journey is about the magic that happens when passion, purpose and positivity collide in a symphony of colours and inspiration.

Photographer: Weronika Mamot **Creative Director/Make-up:** Shahna Smith
Stylist: Emma Riemersma/SA Life Publications **Artist/Talent:** Mali Isabel
Hair: Janelle Zara







LEFT: Country Road — Linen YD blazer $399; Significant Other — Eryn shorts $220; Lexi — Top from the Lorena set in mojito $499; Luminous Assembly — Maya pumps $189; YO-DAN — Industrial glass necklace POA; Lavender jelly flower earrings $65

TOP: Couture Love Madness — Thai silk bubble dress POA; This Wee Piggy — Sea pebbles earrings $35; Luminous assembly — Lola mid heel strappy sandal $179

ABOVE: YO-DAN — Glass long link clear earrings $150; Glass long link baby pink earrings $180







Pictures: Jonathan Green

Kamara stuns with new range

PHOEBE BLOGG

Since launching on to the fashion scene, First Nations-owned and founded swimwear Kamara, has had fashion enthusiasts, consumers and critics on the edge of their seats — and this week's Brisbane Fashion Festival presentation was no different.

Presenting its new collection Universe, Kamara returned to the runway where the brand began. For founders and business partners, Naomi Collings and Kirsty Parnel (Parnel is taking a step back from the brand) seeing their sun-friendly garments walk the runway was yet another rewarding moment.

"We're thrilled to be back at Brisbane fashion month and to have been selected for the Hancock Prospecting Next Gen Group show," creative director Collings said. "It's an honour to return to the Queensland runway, especially since we showcased our very first collection here in 2017."

Having launched soon after Collings received a shock melanoma diagnosis, Kamara was designed to be an apparel business with advocacy at its core. Creating gorgeous, sun-conscious swimwear and paying homage to their Indigenous roots, is what has made Kamara stand out.

Collings created the innovative swimwear line — made using rich, protective fabrics — with the hopes it would both sell and start conversations. Continuing to celebrate their diverse cultural background, the collection features a collaboration print with Yaggerah artist, Jenine Godwin-Thompson. And it has a one-piece, named Onyx, made completely of recycled material. "Onyx is made with ECONYL-regenerated nylon from the healthy seas initiative — elegant, fine, soft, and breathable fabrication. It offers muscular compression, comfort, and UV protection (UPF50+) while resisting chlorine, sun creams, and oils," Collings said.



Building stronger futures through positive partnerships.

We are committed to helping young Aboriginal people reach their potential through our Indigenous scholarship and career development program, Hanrine Futures. The program currently has 18 participants from primary to tertiary age. Each participant is supported through school and university or vocational education with mentors and additional learning opportunities, and into the workplace with internships, work experience and employment.

Visit the website to learn more about Roy Hill's community partnerships.

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ROY HILL



Russell James & Patricia Mason.

Elders proud to share the ke to life

SHAHNA SMITH

As a Kariyarra Elder, Patricia Mason is entrusted with passing down tens of thousands of years of knowledge to the next generation.

But Ms Mason says she also shoulders responsibility to share this "key to life" — knowledge of significant sites, language, wisdom and culture — with non-Aboriginal people.

Which is why her family invited renowned photographer Russell James on to Kariyarra country, which encompasses lands around the town of Port Hedland in north-west WA.

The images captured on his visits, which include a birthing place that was used by Kariyarra women, form part of a new exhibition that seeks to shine a light on Elders from across Western Australia.

Ms Mason is one of more than a dozen Elders and Aboriginal leaders whose portraits feature in The Elders: Legacy of Leadership at the Perth headquarters of Mineral Resources.

At the unveiling, Ms Mason said she hoped the photographs furthered understanding of the deep connection to Country.

"Truth needs to be told that there are places that we feel very sincerely about. We have to show people that they do exist, because without them we wouldn't be here today — we wouldn't have survived," she said.

Russell James regards working on the exhibition as one of the greatest privileges of his career. Other Elders and leaders featured include Noongar man and leading Aboriginal performer Dr Richard Walley, Kaprun Elder Brian Champion, Noongar woman Emeritus Professor Colleen Hayward and Noongar Elder Professor Len Collard.



Budjerah on song for top artist's award

NEVE BRISSENDEN

Coodjinburra musician Budjerah has been crowned artist of the year at the National Indigenous Music Awards.

The 21-year-old singer-songwriter from Fingal Head, in northern NSW, has spent the past year touring with Ed Sheeran and released his hit-single Therapy in February. His list of Australian accolades will now grow after winning the young artist of the year at the 2021 Indigenous Awards, being crowned the best breakthrough artist at the 2021 ARIA Awards and taking out the ARIA for best soul/R&B release for his album Conversations last year.

Budjerah was also nominated for song of the year and film clip of the year, although both those categories were won by emerging talent King Stingray.

The band, from north-east Arnhem Land in the Northern Territory, released the single Let's Go in May 2022 and their debut self-titled album in August last year. This is the band's second year winning song of the year after taking out the category last year with their single Milkumana.

Gamilaraay musician Thelma Plum was also recognised, winning album of the year with her EP Meanjin, written during COVID-19 lockdowns.

The ARIA Award winner has been shortlisted for the Indigenous Awards 10 times but has not won since 2015.

The community clip of the year was awarded to Arnhem Land group Wildfire Manwurrk for Mararradj.

The group also won the Archie Roach Foundation Award. The Indigenous Language Award went to Ngulmiya, an Arnhem Land songman and ceremony leader, for his self-titled single.

Musical trailblazers Yothu Yindi were inducted into the Hall of Fame.

INDIGENOUS-INSPIRED MASSAGE PROVES A POPULAR CHOICE

PHOEBE BLOGG



Midden at the Opera House is a dream come true for Olive

PHOEBE BLOGG

While it's not uncommon for celebrity chefs to break away from the spotlight to launch their own venture, celebrated chef and proud Bundjalung man Mark Olive — otherwise known as The Black Olive — did so not with the intention of profit, but passion.

Thus came the launch of Olive's Indigenous-inspired restaurant, Midden by Mark Olive. Located in Sydney's stunning Opera House, Midden is where culture and craft meet culinary creativity.



Fusing his Indigenous Australian heritage, with seasonal produce and local delicacies, Olive, pictured, has ensured Midden is a reflection of both his culture and favourite cuisine.

"Opening Midden by Mark Olive at the Sydney Opera House on Tubowgule, Gadigal country is a dream come true," he said.

Since opening on July 4, Midden has welcomed foodies, socialites and celebrities into the restaurant.

He has designed Midden's menu to touch on his culture and trendy tastebuds. It ranges from eucalyptus whipped butter and quandong paste, to smoked kangaroo and bush honey. "It's very adventurous and truly Australian," Olive said. "Our diners can expect a variety of Indigenous produce like crocodile, kangaroo, emu and wallaby shanks."

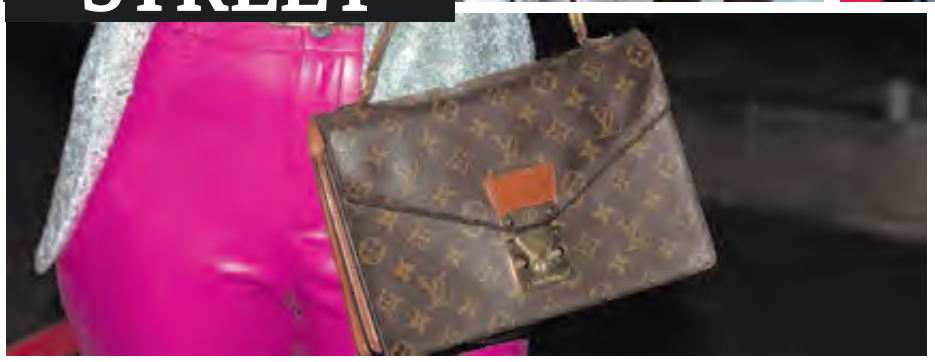
Aside from his appearances on Masterchef Australia, Olive is admired for his work in the SBS hit series, The Outback Chef. Assisting Olive is executive chef and friend, Damien Worthington, who brings a wealth of experience working at some of Sydney's top restaurants.







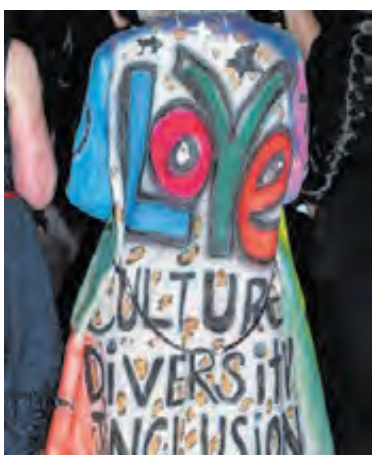
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ALL IMAGES BY **JONATHAN GREEN**



MOVING FORWARD. TOGETHER.

Woodside is supporting the Yes campaign for an Indigenous Voice to Parliament.

We believe having a formal pathway for First Nations people to share their views on policies that matter to them can only result in better outcomes.

A Yes vote would be a historic step forward in the reconciliation of our nation and an opportunity to unite all Australians.

Read more about Woodside's reconciliation journey at https://www.woodside.com/sustainability/indigenous-peoples

Image: 'Jenaalup Bidi' (Place of Footprints), signature piece for Woodside's 2021-2025 Reconciliation Action Plan

Woodside Energy

Force of language fuelling the Red Power legacy



Tashina Banks Rama outside the heritage centre at Red Cloud Indian School. Picture: Giovanni Torre

GIOVANNI TORRE

Red Cloud Indian School (Mapiya Luta Owayawa) was named for the venerated Oglala Lakota Chief, who led his people from 1865 to 1909 in a struggle to defend their culture, land, language and way of life.

More than a century after his death, the school's executive vice-president Tashina Banks Rama advocates, promotes and upholds Lakota values, and engages the community in ways that continue to transform the multi-faith organisation.

The daughter of American Indian Movement co-founder Dennis Banks, Ms Rama has served the community school, located on sovereign Oglala Lakota land in South Dakota for 14 years and as executive vice-president for three years.

Once a church-run residential school, Red Cloud is now managed by the Oglala Lakota community and is no longer residential.

Ms Rama told National Indigenous Times language revitalisation is "critically important" to the community's wellbeing.

"It's the core of who we are. Our language is the lens in which we are able to view the world. In our belief, we believe that we're all related and that in order to have harmony and balance in our lives, it's important that we respect all living things.

"Our language communicates that in ways that English cannot. So, to speak the language really is to be able to identify as a Lakota and as a being that is part of this circle of the sacred group that we live in," she said.

"This school today is staffed 70 per cent by Lakota people. It's 99 per cent Lakota students.

"There are some non-native students who go to school here, but the majority of our students are Lakota and I feel very proud about that."

Ms Rama noted the importance of teaching the history of her people after many decades of misrepresentation and marginalisation.

"I can tell you this as a person who grew up in the American school system, I never learnt about Native people (in school) in the way that I learnt about them at home. (In) history books of the United States, we're invisible, or if we are in the history books, we are in past tense, right, there are the Indian Wars or you know, Indians were conquered . . . the 'people who used to be here'?" she said.

"So who we are today is nothing like what is written in the history books. In fact, today we're a vibrant, thriving community . . . (and) leading the way, in our language revitalisation programs.

"And we have professors, we have faculty, you know, from K through 12. More importantly, we have the most PhDs we've ever had teaching in universities across the United States. It's very important because we're here . . . And it's important that my children feel proud in who they are, and that we are continuing to instil that pride in the next generation. So, seven generations from now, our children are speaking the language, they know where they come from, they know the history of our people and our creation stories, and why it's important to live the way we do with our traditions."

Ms Rama's father, Dennis Banks, was one of the founders of the American Indian Movement, which embraced a strategy of direct action in response to many decades of human rights abuses by police and treaty-breaking by the US government, and because of the dire conditions on reservations.

"The American Indian Movement was a movement of men and women who were fighting to be recognised. They were fighting against police brutality that was taking place at the time in Minneapolis. The beginning of AIM was 1968 . . . the environment of Minneapolis was really harsh for Native people," she said.

"Police brutality was at its worst in the late Sixties against Native people. And that was when people like my father, Dennis Banks, Clyde Bellecourt, Vernon Bellecourt, and other leaders came together and formed the American Indian Movement.

"It started out as a community-organised group that were trying to protect each other, and look out for one another. And then it just grew very quickly from there."

Ms Rama said the legacy of AIM and the stand it took for justice can be seen in the Native people empowering themselves through education.

"My bachelor degree is a business degree, but my minor is Native American studies. And the fact that there was a Native American Studies Department at a public university has a lot to do with the American Indian Movement. American Indian studies departments popped up all over the United States and public universities because of the work of the American Indian Movement.

"The legacy (of AIM) gave agency to a lot of people who are working in those spaces, here comes this movement, right, this Red Power movement. And so, people were using their agency, and they're feeling empowered by this community group that was starting to rise in ranks and starting to be really viewed as a legitimate organisation that was making change."

Ms Rama said there is an ongoing struggle for recognition and to end racism.

"As Native people there's a sense of we just are not here, that we just are invisible and we don't exist, or if we exist, we are caricatures, and we're just not a real culture or we're not a real people that still live in lands and practice ceremonies and have a language and practice traditions that have been happening for thousands of years," she said.

"In this State (South Dakota), particularly, you feel the racial tension is very strong, it's very alive. That's something we try to combat with our work and language and culture here so that our kids feel as confident as they can be when they walk into a gas station, or a grocery store that's off the reservation, where they're viewed, as you know, the 'other', when in reality, this is our homelands, you know, the Black Hills, we have been praying there for thousands of years. That's the home of our sacred sites, and our creation story.

"Native people have to do the best that we can to make sure that we're being recognised, we have to advocate for ourselves, because there's nobody else out there advocating on our behalf."

Ms Rama noted that the "land-back" movement is "huge" in the US, Canada and around the world.

"The Red Power movement is really very much alive today and getting stronger."

> "Our language is the lens in which we are able to view the world . . . Our language communicates that in ways that English cannot. So, to speak the language really is to be able to identify as a Lakota and as a being that is part of this circle of the sacred group that we live in.

DV and health challenges for tribal leaders

GIOVANNI TORRE

For 45 years the White Buffalo Calf Women's Society has served vulnerable women and children in South Dakota.

The society is in south central South Dakota and was the first organisation of its kind in the US; a Native American-run service providing shelter and support to victims of domestic violence, sexual assault, dating violence, and stalking.

Prairie Rose Chapin, a Rosebud Sioux woman, is the executive director of the society and spoke to National Indigenous Times during the 18th Annual Government-to-Government Violence Against Women Tribal Consultation in Tulsa, Oklahoma this month, involving federal authorities consulting with tribal organisations and leaders, as mandated under Federal US law.

"White Buffalo Calf Women's Society ... was created and funded by Lakota grandmothers who saw there was a need to address violence against women, children and elders, and support those that are afflicted by domestic violence and family violence," she said.

"We ... provide an array of services to women that are affected by domestic violence, stalking, sexual assault, human trafficking ... We do young people's programs, youth programs, as well as the teen dating. We also go into the schools and do programs for young ladies and younger girls. So, they're starting to learn about how to keep themselves safe and how to help others that are in need or need safety."

The society's shelter, founded in 1978, now includes a 36-bed facility which tribal leaders hope to expand.

"As much as a we are celebratory (for the upcoming 45th anniversary of the society) it is almost with much sadness that we have to convey that we're still incurring family violence in our communities," Ms Chapin said. "We do help other tribal nations, we help those in need ... We're going to help everybody."

Ms Chapin noted an executive order was issued by the White House in 2004 "for the United States government to have meaningful consultations with the tribes, so the United States government is able to create and develop objective plans to help the tribal nations regarding violence in our communities and mostly regarding with women".

Ms Chapin said the "trust responsibility" relationships between the US government and the sovereign tribal nations are at the heart of the treaties.

"That's why these tribal consultations are so meaningful, because they listen to the tribes and are trying to help address the issues within the tribal communities," she said.

Ms Chapin noted there were almost 600 federally recognised tribal nations in the US with distinct needs.

"That lets you know how many tribal leaders have sent designees, representatives — as well as tribal leaders themselves — that are here (at the August consultation conference in Tulsa) to convey the information that is so dire in our communities," she said.

"The Department of Interior has oversight of what's going on between the United States government and our Tribal nations ... (Federal authorities) also provide funding to the Department of Interior to be filtered down to tribal nations under what they call Public Law 93 638 contracting.

> "That's why these tribal consultations are so meaningful, because they listen to the tribes and are trying to help address the issues within the tribal communities.
>
> **Prairie Rose Chapin**

"They provide the funding, we execute the contract ... however, we're going to need more funding for more policy, procedure, training opportunities. Because the people are in dire need here, as well as any other Indian nations.

"We have the same issues, but different nations (are) unique. Now we have missing murdered indigenous women. We have missing murdered indigenous relatives. We have domestic violence, family violence, we have cops that are shooting and cops that are killing. And they all revolve around back to training, training, training. It's not enough... we have to teach our culture to change."

Ms Chapin said it is was a public responsibility as well as an individual responsibility to teach the community's children to "be right and to be productive members of society".



Prairie Rose Chapin at the conference in Tulsa. Picture: Giovanni Torre

"Teach them cultural-specific ideals, ideology, historical information, so we can move forward."

She noted the social, health and economic damage alcohol and other drugs have done.

"Too often the drugs and alcohol have infiltrated our reservation from the beginning of time as a trading source (and) we still have poor economies on Indian reservations," she said.

"Even now, today's inflation affects what we have received on reservations. Some reservations don't even have a store. You know, in order for us to even go to somewhere with the food chain like McDonald's, or to Walmart, is more than 100 miles away from most reservations. And it's the same with health care."

Ms Chapin said isolation and inadequate services put lives at risk during times of crisis, both natural and man-made.

"We don't handle law enforcement, so with many crimes, especially violent crimes... it can take days to get that response. And some people die during while waiting for that response," she said. "We had an array of snow storms this past winter, where it was very life threatening ... six to eight feet of snow, and law enforcement or emergency services not able to respond. Tribal governments and the (US) government have to meet in the middle somewhere. It was the US government that created these Indian reservations. There's a lot of treaty rights that were set aside by the US government."

Ms Chapin said there was still a lot of work to be done to address the challenges and injustices tribal nations face.

"They gave us land pieces that sometimes have nothing. Some tribal nations have no water and there's still none, they go to town to fill buckets for water, or canisters for water, just for basic needs."

Together with reconciliation at our heart

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Learn more about our partnership here.

Maree Graham (UTS), Cassandra Tratt & Clint Johnson (Woolworths Group)



D



A Tidal Moon dive team on a recent mooring and hull inspection for a local net fisherman. Picture: Tidal Moon

Diving into history for lucrative trade

DAVID PRESTIPINO

A First Nations business operating on WA's Coral Coast is resurrecting a centuries-old trade route between Indigenous Australians and Asia.

Denham-based Tidal Moon is a nod to the origins of Australian commerce, which began with the trade of sea cucumbers from Indigenous people from the Kimberley and Arnhem Land regions to Macassan seafarers from what is now Indonesia.

Tidal Moon managing director and Mulgana traditional owner Michael Wear said his goal was to preserve and enhance Indigenous heritage while creating a business that would remain viable for decades, and forge a path for more First Nations organisations to enter the lucrative commercial fishing industry. Tidal Moon gained access to the sea cucumber fishery in Shark Bay in 2017, improving the lives and skills of traditional custodians, but is now fighting for a commercial licence so it can continue its good work.

"We want to be in the mainstream industry and have the ability to set up a business that's not reliant on grants or funding but stands on its own as a First Nations-owned company," he said.

While Tidal Moon's focus is sea cucumber fishing, it also has exciting partnerships with the likes of the CSIRO, APEC and the Harry Perkins Institute of Medical Research, helping the latter determine the health benefits of sea cucumbers, particularly in cancer treatments.

The sea cucumber harvesting business, which was kickstarted in 2019 with a $92,000 investment from the Indigenous Land and Sea Council, has also established one of the world's largest seagrass restoration projects through BHP's Blue Carbon initiative, targeting a portion of the estimated 100,000ha of damaged sea grass meadows in Shark Bay.

Tidal Moon has trained and employed more than 10 Malgana traditional custodians in dive operations, delivering certified training in marine industry operations through partnerships with TAFE WA Maritime Centre and the Swan Maritime Institute.

Divers record all their interactions in nature, with Mr Wear planning to create a "living library" in conjunction with the CSIRO of Indigenous observations with the environment. Export opportunities are also in demand, with sea cucumbers considered a delicacy in Asia and also popular across Europe, prized for their culinary and medicinal properties.

Tidal Moon's potential lucrative export contract with a Singapore company was recently skittled when its five-year fishing licence obtained through a minister's exemption expired in July.

Mr Wear said the WA Government had placed roadblocks to Tidal Moon's growth on a local front, leaving the company floating as it fights for a commercial licence to enable further development.

He said all sea cucumber commercial fishing licences in WA were currently owned by Tasmanian Seafoods.

NINA HENDY

Indigitek aims to boost the number of Indigenous people entering the tech industry, improving diversity and alleviating talent shortages in the sector.

Aboriginal and Torres Strait Islander people make up close to zero per cent of the tech industry, yet its importance as an employer is set to surge.

Indigitek, a not-for-profit group, has joined forces with course provider General Assembly, which specialises in cultivating diverse tech talent, and built a scholarship program designed to train Aboriginal and Torres Strait Islander candidates for tech startup Cash App, a money transfer app.

The scholarship program has been designed to create a chance for interested candidates to supercharge their careers in engineering. It's made up of a three-month software engineering immersive course, then a six-month internship.



The first successful candidate to land full-time work with Cash App is Joshua Towney, pictured, who started the journey 18 months ago, and admits he sometimes has to pinch himself to make sure he's not dreaming.

His wife had been encouraging him to look into coding for a decade but he was reluctant to dedicate years to being a struggling student. "The silver bullet of it only being a short course won me over in the end," he said.

He was one of about 15 students in the course. Born and raised in Dubbo, he's part of the Wiradjuri Country. "The initiative was subsidised by the Indigitek and Cash App partnership, so all costs for the course were covered," Mr Towney said.

Learning there were only about 200 Indigenous developers Australia-wide drove home the challenge in getting more Aboriginal and Torres Strait Islanders into the industry, he added.

Mr Towney said it has been his toughest endeavour to date, but he wouldn't trade the experience for anything.

BRENDAN FOSTER

Supply Nation's new chief executive Kate Russell says the rise in First Nations businesses in the past 10 years has been phenomenal but fledging Indigenous companies still face significant barriers.

The proud Awabakal woman, pictured, who recently replaced interim chief executive Michelle Deshong, said despite only being in the top job a few weeks she is keen to tackle the age-old issue of access to capital for Aboriginal and Torres Strait Islander people.



"Our entrepreneurs continue to face significant barriers to establishing a successful business, including difficulty in attracting low-cost finance, building a customer base, winning contracts or establishing links with reliable suppliers," she said. "I see helping our mob overcome these barriers as a fundamental and ongoing challenge of my role.

"One thing that has become apparent to me over the last few weeks is that we need to be supporting the diversity of our suppliers — from a mum and dad operating out of a garage, to a bi-coastal organisation with its own philanthropic fund."

A board director of the NSW Aboriginal Land Council, Ms Russell said First Nations businesses still don't get some of the recognition they deserve in contributing to the economy.

It's estimated they pour about $5 billion a year into the nation's coffers. "I think recognition of how our businesses contribute to the national economy is growing," Ms Russell said. "This success is in spite of the unique set of challenges that Aboriginal and Torres Strait Islander people face — including historical and institutionalised inequities, limited access to the market and complex social stratification."

Ms Russell said the Federal Government's Indigenous Procurement Policy had enabled a tremendous growth in the First Nations business sector, but the policy could be improved.

GOVERNMENT OF WESTERN AUSTRALIA

NOTICE TO GRANT MINING TENEMENTS

NATIVE TITLE ACT 1993 (CTH) SECTION 29

The State of Western Australia HEREBY GIVES NOTICE that the Minister for Mines and Petroleum, C/- Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004 may grant the following tenement applications under the *Mining Act 1978*:

Tenement Type	No.	Applicant	Area*	Locality	Centroid	Shire
Exploration Licence	15/1955	MONGER EXPLORATION PTY LTD	14BL	18.4km E'ly of Kambalda	Lat: 31° 11' S Long: 121° 51' E	COOLGARDIE SHIRE, KALGOORLIE-BOULDER CITY
Exploration Licence	16/633	AMERY HOLDINGS PTY LTD	3BL	35.7km W'ly of Ora Banda	Lat: 30° 19' S Long: 120° 41' E	COOLGARDIE SHIRE
Exploration Licence	28/3267	CARAWINE RESOURCES LIMITED	9BL	157.6km N'ly of Balladonia	Lat: 31° 2' S Long: 123° 48' E	KALGOORLIE-BOULDER CITY
Exploration Licence	28/3347	REGENER8 RESOURCES NL	200BL	176.5km SE'ly of Edjudina	Lat: 30° 48' S Long: 123° 46' E	KALGOORLIE-BOULDER CITY
Exploration Licence	28/3348	REGENER8 RESOURCES NL	63BL	164.9km SE'ly of Edjudina	Lat: 30° 53' S Long: 123° 31' E	KALGOORLIE-BOULDER CITY
Exploration Licence	31/1363	M3 MINING (EDJUDINA) PTY LTD	1BL	16.4km W'ly of Edjudina	Lat: 29° 46' S Long: 122° 11' E	MENZIES SHIRE
Exploration Licence	31/1365	M3 MINING (EDJUDINA) PTY LTD	2BL	16.3km W'ly of Edjudina	Lat: 29° 51' S Long: 122° 11' E	MENZIES SHIRE
Exploration Licence	31/1366	M3 MINING (EDJUDINA) PTY LTD	1BL	15.7km SW'ly of Edjudina	Lat: 29° 52' S Long: 122° 12' E	MENZIES SHIRE
Exploration Licence	31/1367	M3 MINING (EDJUDINA) PTY LTD	1BL	9.7km W'ly of Edjudina	Lat: 29° 47' S Long: 122° 15' E	MENZIES SHIRE
Exploration Licence	36/1068	METAL HAWK LIMITED	21BL	30.8km S'ly of Leinster	Lat: 28° 11' S Long: 120° 41' E	LEONORA SHIRE
Exploration Licence	46/1477	TMB NULLAGINE PTY LTD	32BL	36.8km SE'ly of Nullagine	Lat: 22° 2' S Long: 120° 25' E	EAST PILBARA SHIRE
Exploration Licence	46/1503	TMB NULLAGINE PTY LTD	9BL	46.9km E'ly of Nullagine	Lat: 21° 54' S Long: 120° 33' E	EAST PILBARA SHIRE
Exploration Licence	46/1504	TMB NULLAGINE PTY LTD	20BL	46.1km E'ly of Nullagine	Lat: 21° 59' S Long: 120° 32' E	EAST PILBARA SHIRE
Exploration Licence	46/1505	TMB NULLAGINE PTY LTD	3BL	55km E'ly of Nullagine	Lat: 21° 55' S Long: 120° 38' E	EAST PILBARA SHIRE
Exploration Licence	51/2167	MINING EQUITIES PTY LTD	32BL	47.5km SE'ly of Peak Hill	Lat: 25° 55' S Long: 119° 4' E	MEEKATHARRA SHIRE
Exploration Licence	51/2170	MINING EQUITIES PTY LTD	11BL	42.9km SE'ly of Peak Hill	Lat: 25° 49' S Long: 119° 5' E	MEEKATHARRA SHIRE
Exploration Licence	70/6447	RIO TINTO EXPLORATION PTY LIMITED	169BL	62.4km N'ly of Mukinbudin	Lat: 30° 21' S Long: 118° 8' E	MOUNT MARSHALL SHIRE, MUKINBUDIN SHIRE
Exploration Licence	70/6462	CODRUS MINERALS LIMITED	1BL	32.7km N'ly of Mukinbudin	Lat: 30° 37' S Long: 118° 8' E	MUKINBUDIN SHIRE
Exploration Licence	70/6463	CAULDRON ENERGY LIMITED	82BL	23.3km SE'ly of Dalwallinu	Lat: 30° 23' S Long: 116° 51' E	DALWALLINU SHIRE
Exploration Licence	70/6469	CAULDRON ENERGY LIMITED	74BL	59.7km NE'ly of Wongan Hills	Lat: 30° 33' S Long: 117° 12' E	KOORDA SHIRE, WONGAN-BALLIDU SHIRE
Exploration Licence	70/6472	CODRUS MINERALS LIMITED	54BL	43.7km N'ly of Mukinbudin	Lat: 30° 32' S Long: 118° 4' E	MOUNT MARSHALL SHIRE, MUKINBUDIN SHIRE
Exploration Licence	70/6473	SR EXPLORATION PTY LTD	24BL	78.3km NW'ly of Mukinbudin	Lat: 30° 18' S Long: 117° 48' E	MOUNT MARSHALL SHIRE
Exploration Licence	70/6474	SR EXPLORATION PTY LTD	35BL	83km NW'ly of Mukinbudin	Lat: 30° 24' S Long: 117° 34' E	KOORDA SHIRE, MOUNT MARSHALL SHIRE
Exploration Licence	77/2958	DYNAMIC METALS LIMITED	26BL	9.4km W'ly of Southern Cross	Lat: 31° 15' S Long: 119° 14' E	YILGARN SHIRE
Exploration Licence	77/3099	MORNING STAR MINING PTY LTD	2BL	111.3km N'ly of Southern Cross	Lat: 30° 13' S Long: 119° 23' E	YILGARN SHIRE
Exploration Licence	77/3100	MORNING STAR MINING PTY LTD	1BL	109.6km N'ly of Southern Cross	Lat: 30° 14' S Long: 119° 24' E	YILGARN SHIRE
Exploration Licence	77/3104	NIMY PTY LTD	35BL	96.1km NE'ly of Mukinbudin	Lat: 30° 9' S Long: 118° 42' E	YILGARN SHIRE
Exploration Licence	77/3105	DESTINY LITHIUM PTY LTD	18BL	51.7km S'ly of Marvel Loch	Lat: 31° 56' S Long: 119° 28' E	YILGARN SHIRE
Exploration Licence	77/3112	CULLEN EXPLORATION PTY LIMITED	7BL	21.5km SE'ly of Mukinbudin	Lat: 31° 4' S Long: 118° 19' E	MUKINBUDIN SHIRE, NUNGARIN SHIRE
Exploration Licence	77/3113	AURUMIN JOHNSON RANGE PTY LTD	1BL	148.1km W'ly of Menzies	Lat: 29° 42' S Long: 119° 30' E	MENZIES SHIRE
Prospecting Licence	24/5600-S	SMITH, William John	8.59HA	5.9km NW'ly of Broad Arrow	Lat: 30° 23' S Long: 121° 17' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	25/2743	ARDEA EXPLORATION PTY LTD	31.04HA	32.4km E'ly of Kalgoorlie	Lat: 30° 48' S Long: 121° 48' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	25/2763-S	DEBEEN, Simon John	9.65HA	36.7km NE'ly of Kambalda	Lat: 30° 55' S Long: 121° 52' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4698	NORTON GOLD FIELDS PTY LTD	15.18HA	9.6km SW'ly of Kalgoorlie	Lat: 30° 49' S Long: 121° 24' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4700	GOLDTIMERS PROSPECTING PTY LTD	20.13HA	8.8km S'ly of Kalgoorlie	Lat: 30° 49' S Long: 121° 27' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4701	WARD, Victoria Louise	3.36HA	9km SW'ly of Kalgoorlie	Lat: 30° 49' S Long: 121° 25' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	26/4702	NORTON GOLD FIELDS PTY LTD	17.79HA	12.6km SW'ly of Kalgoorlie	Lat: 30° 50' S Long: 121° 23' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	28/1404	ALTER, Roger Scott	119.99HA	78.2km S'ly of Edjudina	Lat: 30° 30' S Long: 122° 15' E	KALGOORLIE-BOULDER CITY
Prospecting Licence	30/1164-S & 30/1165-S	ARGUS, Stephen George	20.00HA	43.6km W'ly of Menzies	Lat: 29° 38' S Long: 120° 35' E	MENZIES SHIRE
Prospecting Licence	39/6424	SIMMONS, Wayne Anthony	8.01HA	60.9km E'ly of Leonora	Lat: 28° 59' S Long: 121° 56' E	LAVERTON SHIRE, LEONORA SHIRE
Prospecting Licence	40/1575	DIXON, Craig Leslie	9.90HA	45.1km S'ly of Leonora	Lat: 29° 16' S Long: 121° 27' E	MENZIES SHIRE

Nature of the act: Grant of prospecting licences which authorises the applicant to prospect for minerals for a term of 4 years from date of grant. Grant of Special Prospecting Licences, which authorises the applicant to prospect for minerals for a term up to 4 years from the date of grant. Grant of exploration licences, which authorises the applicant to explore for minerals for a term of 5 years from the date of grant.

Notification day: 23 August 2023

Native title parties: Under section 30 of the *Native Title Act 1993* (Cth), persons have until 3 months after the notification day to take certain steps to become native title parties in relation to applications. The 3 month period closes on **23 November 2023**. Any person who is, or becomes a native title party, is entitled to the negotiation and/or procedural rights provided in Part 2 Division 3 Subdivision P of *Native Title Act 1993* (Cth). Enquiries in relation to filing a native title determination application to become a native title party should be directed to the Federal Court of Australia, 1 Victoria Avenue, Perth WA 6000, telephone (08) 9268 7100.

Expedited procedure: The State of Western Australia considers that these acts are acts attracting the expedited procedure. Each licence may be granted unless, within the period of 4 months after the notification day (**i.e. 23 December 2023**), a native title party lodges an objection with the National Native Title Tribunal against the inclusion of the statement that the State considers the grant of the licence is an act attracting the expedited procedure. Enquiries in relation to lodging an objection should be directed to the National Native Title Tribunal, Level 5, 1 Victoria Avenue, Perth, or GPO Box 9973, Perth, WA 6848, telephone (08) 9425 1000.

For further information about the act (including extracts of plans showing the boundaries of the applications), contact the Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004, or telephone (08) 9222 3518. ***Please note – Not all Intention to Grant notifications are published in the National Indigenous Times. For more information please contact the Department above.***

* - 1 Graticular Block = 2.8 km²

GOVERNMENT OF WESTERN AUSTRALIA

NOTICE TO GRANT MINING TENEMENTS

NATIVE TITLE ACT 1993 (CTH) SECTION 29

The State of Western Australia HEREBY GIVES NOTICE that the Minister for Mines and Petroleum, C/- Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004 may grant the following tenement applications under the *Mining Act 1978:*

Tenement Type	No.	Applicant	Area	Locality	Centroid	Shire
Mining Lease	15/1897	OPHIR MINING RESOURCES PTY LTD	130.23HA	22.9km SW'ly of Kambalda	Lat: 31° 19' S Long: 121° 28' E	COOLGARDIE SHIRE
Mining Lease	15/1898	ROBUSTELLINI, Anthony	3.50HA	94.4km NE'ly of Southern Cross	Lat: 30° 44' S Long: 120° 8' E	COOLGARDIE SHIRE
Mining Lease	15/1904-G	FRANCIS, Raymond John	7.34HA	25.1km SW'ly of Kambalda	Lat: 31° 22' S Long: 121° 29' E	COOLGARDIE SHIRE
Mining Lease	24/1007	ARCHER, Glenn Douglas	129.90HA	7.9km SE'ly of Ora Banda	Lat: 30° 25' S Long: 121° 6' E	KALGOORLIE-BOULDER CITY
Mining Lease	29/444	MT IDA GOLD PTY LTD	572.21HA	88.2km NW'ly of Menzies	Lat: 29° 4' S Long: 120° 27' E	MENZIES SHIRE
Mining Lease	39/1155	E-COLLATE PTY LTD	153.44HA	60.3km E'ly of Leonora	Lat: 29° 0' S Long: 121° 56' E	LEONORA SHIRE

Nature of the act: Grant of mining leases, which authorises the applicant to mine for minerals for a term of 21 years from notification of grant and a right of renewal for 21 years.

Notification day: 23 August 2023

Native title parties: Under section 30 of the *Native Title Act 1993* (Cth), persons have until 3 months after the notification day to take certain steps to become native title parties in relation to applications. The 3 month period closes on **23 November 2023**. Any person who is, or becomes a native title party, is entitled to the negotiation and/or procedural rights provided in Part 2 Division 3 Subdivision P of *Native Title Act 1993* (Cth). Enquiries in relation to filing a native title determination application to become a native title party should be directed to the Federal Court of Australia, 1 Victoria Avenue, Perth WA 6000, telephone (08) 9268 7100. The mining tenements may be granted if, by the end of the period of 4 months after the notification day (**i.e. 23 December 2023**), there is no native title party under section 30 of the *Native Title Act 1993* (Cth) in relation to the area of the mining tenements.

For further information about the act (including extracts of plans showing the boundaries of the applications), contact the Department of Mines, Industry Regulation and Safety, 100 Plain Street, East Perth WA 6004, or telephone (08) 9222 3518. ***Please note – Not all Intention to Grant notifications are published in the National Indigenous Times. For more information please contact the Department above.***

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NIAA called out on lack of fraud checks

DAVID PRESTIPINO

An alarming lack of audit controls has been exposed at Australia's leading Indigenous funding organisation.

A new report by the Australian National Audit Office has found the National Indigenous Australians Agency, the Commonwealth body responsible for policy development, implementation and service delivery for First Nations people, is failing to properly detect and manage fraud.

The agency, which has more than 1300 employees across Australia, had its budget in 2022-23 increased to $4.5 billion, to provide funding for programs through the Federal Government's Indigenous Advancement Strategy.

In 2021–22, the NIAA funded spent $1.03 billion on more than 1000 external providers to deliver IAS activities and services, yet it failed to initiate a single fraud investigation.

ANAO analysis of Federal Government entities in June 2022 found the average number of external fraud investigations in medium agencies was 25 and in large agencies 12. Its report said the NIAA was not meeting legislated requirements for "risk and fraud management" in its role co-ordinating service delivery and policies for First Nations people.

The inadequacies in its fraud management were enough for the Federal Minister for Indigenous Australians Linda Burney to instruct the NIAA to implement further anti-fraud measures, in addition to seven recommendations from the ANAO in its report.

"I am very disappointed and concerned by the ANAO's findings," Ms Burney told the National Indigenous Times.

The NIAA was designed to improve Indigenous communities through the delivery of services but the report found it lacked proper oversight and compliance mechanisms to ensure funds were directed appropriately. One area of concern for the ANAO was the NIAA's management of fraud and non-compliance risks with service providers. "Its frameworks for managing provider fraud and non-compliance are not fully fit-for-purpose," the report said.

Ms Burney said the systems put in place by the previous Federal government were "clearly deficient". "Strong governance and accountability are critical to ensuring delivery of high quality services and better outcomes for Aboriginal and Torres Strait Islander communities," she said.

"The NIAA has already agreed to all the recommendations by the Auditor-General, and is in the process of implementing them."

Ms Burney said she had also instructed the NIAA to: establish an integrity group to elevate fraud prevention and detection; introduce a program of pro-active random compliance checks that is best-practice; start additional training for staff on fraud prevention and detection; and ensure staff are taking preventive and proactive steps to prevent and detect fraud

In a letter to Auditor-General Grant Hehir in May addressing the ANAO's report, NIAA chief executive Jody Broun said the agency would implement all seven recommendations and meet its obligations under Commonwealth legislation.

"The opportunities for improvement identified in the audit report, in conjunction with the work already under way to enhance practices and processes, support the agency's continuous improvement of its management of risk, provider fraud and non-compliance," she wrote.

An ANAO review of five investigation closure reports by the NIAA found there was no or insufficient evidence of fraud. The ANAO noted of the five reports that three were not approved and one was not dated. Of the four that were dated, three were not endorsed by case officers and three did not have information on lessons learnt.



Picture: Darren England

Qantas flies the flag for Yes

DAVID PRESTIPINO

Qantas will fly the flag for the Yes team on twin fronts in our skies, decorating three of its planes and funding the travel of campaign members.

The commercial arrangement has raised some eyebrows, including those of Adam Giles, former chief minister of the Northern Territory who now runs mining magnate Gina Rinehart's agricultural empire, Hancock Agriculture and S. Kidman & Co.

Qantas chief executive Alan Joyce said branding three of its planes with the Yes23 campaign logo was part of the airline's commitment to reconciliation.

The company's support of an Indigenous voice being enshrined in the Constitution is aligned with leading Australian conglomerates such as Woolworths, Wesfarmers, Rio Tinto and BHP, but providing travel for the Yes23 Campaign and Uluru Dialogue teams invited controversy, given public backlash over its high airfares and cancelled flights.

Mr Joyce said Qantas was covering their costs "so they can engage with regional and remote Australians".

"We're supporting the Yes23 campaign because we believe a formal Voice to Government will help close the gap for First Nations people in important areas like health, education and employment," he said at the official launch at Sydney Airport, alongside Prime Minister Anthony Albanese and other prominent First Nations leaders, including football great Adam Goodes and advocate Noel Pearson.



Mr Albanese praised Qantas for its long-standing commitment to reconciliation and throwing its weight the Yes campaign. "Qantas has a long history of doing its bit to carry the nation, to lift all of us a little bit higher, both literally and figuratively,," he said.

But Mr Giles, an Indigenous man, said big business should not take sides or spend millions supporting the campaign.

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ZAK KIRKUP

The rise of Native American tribes as major economic players has been transformative, marked by innovation and diversification.

Once reliant on casinos, now an $A61.5 billion industry, tribes have expanded into health and other sectors. This shift from casino gaming is all about self-determination and sovereignty.

The Native American experience in diversifying their economic base provides a blueprint for Aboriginal communities in Australia. The principles of self-determination, sovereignty and cultural preservation resonate deeply with both communities.

Shawn Terry, secretary of health for the Muscogee Creek Nation, speaks of a radical shift in health care, yielding an "entire economic development win". Larry Wright Jr, executive director of the National Congress of American Indians, highlighted how health care is a major economic driver.

The story of casino-based gaming in Native American economies is well-known, with the Indian Gaming Regulatory Act in 1988 considered the biggest single economic driver for tribal nations. The shift into the healthcare sector, for example, has been strategic, building financial resilience.

The Native American journey towards economic self-sufficiency offers valuable lessons for Aboriginal Australia in terms of community engagement, governance structures and innovative business practices. Collaborative efforts between the two communities could foster shared learning and growth.

Mr Terry told the National Indigenous Times it's about more than profits: "If our babies are dying quicker, then we're not going to survive as a people. Health care has to be at the centre of that."

The Native American tribes' success in transforming traditional services into economic drivers can inspire Aboriginal communities. In embracing cultural strengths and aligning them with modern business strategies, Aboriginal Australia can create a new narrative of economic empowerment.

The parallels between Native American and Aboriginal Australian experiences offer an opportunity for cross-cultural exchange. By studying the Native American model of economic diversification, Aboriginal communities can develop strategies that reflect their cultural values and regional needs, for a more inclusive and sustainable economic landscape.

This progression from gaming-based economies to a diversified portfolio reflects a sophisticated understanding of economic development and cultural preservation. It embodies the tribes' commitment to self-sufficiency, autonomy and the protection of their people, offering critical insights for Aboriginal communities in Australia.

Santos



Greg McKellar, Wongkumara Elder & Cultural Heritage Manager

"I'M PROUD OF MY COUNTRY AND THE PROTECTION OF OUR CULTURAL HERITAGE SITES."

"Being able to work on country is a privilege. Santos and Wongkumara people working together in the Lake Eyre Basin enables us to go out to country to see things physically, to see the things that my grandmother told me about."

FOR MORE INFORMATION

Scan the QR code or visit **www.santos.com**

Walk the talk for AFL star



Anthony Albanese will meet with former AFL star Michael Long after the Long Walk. Picture: AAP

DAVID PRESTIPINO

This year's 20th Long Walk will bear extra significance for Indigenous AFL trailblazer Michael Long as he strives to unite the nation behind the Voice to Parliament.

The Essendon great will again walk the 650km journey from Melbourne to Canberra, as he first did 20 years ago when setting off to speak with then-prime minister John Howard after the Aboriginal and Torres Strait Islander Commission (ATSIC) was abolished.

This year's event aligns the Voice referendum campaign and is expected to take the Australian Football hall-of-famer 30 to 40 days.

The 53-year-old is re-creating the first journey, stopping in regional communities along the way to discuss how the upcoming referendum could band the country together before reaching Parliament House for meetings with Prime Minister Anthony Albanese and Opposition Leader Peter Dutton.

In its 20 years The Long Walk has transformed into an annual charity event, where people join Long in the trek from Melbourne's Birrarung Marr to the MCG before the annual Essendon-Richmond Dreamtime game during AFL Indigenous Round.

Long said football had played a crucial role in improving the lives of Indigenous people in Australia, and the two-time premiership player believed the Voice can help change lives and bring Australians together for good.

"What I have learnt from footy, I have seen things transformed. I've seen sport change lives," he said.

"One of the greatest advocates is (former Collingwood player) Damian Monkhorst, he has become a great advocate for change."

During a 1995 match between Collingwood and Essendon, Monkhorst used racist language during a tussle with Long.

Long spoke candidly about the referendum and the opportunities it posed, inviting all Australians to join him along the journey to Canberra. The first leg began at Melbourne Town Hall on Sunday finishing later at the Bombers' Windy Hill home ground in Essendon.

"I want all Australians to come walk with me," Long said.

"I want all the sporting codes — Australian Rules, soccer, netball, basketball, rugby, swimming, tennis — to come walk with me. I want corporate Australia to come walk with me.

"I want community groups to come walk with me, and I want Aboriginal organisations to come walk with me."

More information on The Long Walk and its legs and destinations is available at thelongwalk.com.au.

SCARBOROUGH OFFSHORE FACILITY AND TRUNKLINE OPERATIONS ENVIRONMENT PLAN

For more than 35 years, Woodside has been developing LNG projects in Australia. Today, we aim to thrive through the global energy transition with a low cost, lower carbon, profitable, resilient and diversified portfolio.

We are committed to consulting and ensuring feedback from relevant persons is considered and used to inform the development of an Environment Plan for the Scarborough Offshore Facility and Trunkline Operations.

Our activities

Woodside plans to install a Floating Production Unit (FPU) and complete subsequent hook-up and commissioning activities, before start-up and operations for the Scarborough project. Gas from the FPU will be transferred through the gas export trunkline to the Pluto LNG Plant. Other activities include surveys to monitor the reservoir, as well as inspection, maintenance, monitoring and repair activities.

Located around 374 km off the coast of Dampier in Western Australia, work is planned to start in the second half of 2025. We are seeking input from relevant persons whose functions, interests or activities may be affected by the proposed operations.

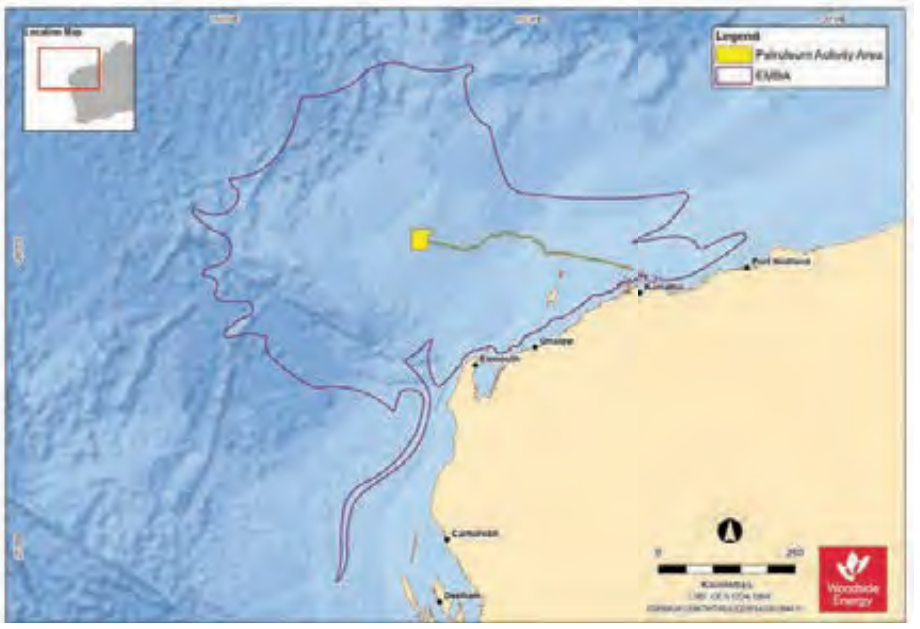
The environment that may be affected (EMBA)

The EMBA is the largest area where activities could potentially have a direct or indirect impact. The broadest extent of the EMBA takes into consideration planned and unplanned activities, and for this EP, is determined by a highly unlikely release of marine diesel to the environment as a result of loss of damage to the production facility or vessel collision.

The EMBA represents the merged area of many possible paths a hydrocarbon release could travel depending on the weather and ocean conditions at the time of the release. This means in the highly unlikely event a hydrocarbon release does occur, the whole EMBA will not be affected at one time.

We want to hear from you

If you are an individual, organisation or community group and believe your functions, interests or activities may be affected by the proposed activity, we would like to hear from you by Monday, **11 September 2023** to identify as a relevant person.



Want to know more or provide input?

A feedback form and more information can be found at: **www.woodside.com/sustainability/consultation-activities**. You can also subscribe via our website to receive future information on upcoming activities.

E: Feedback@woodside.com
Toll free: 1800 442 977
woodside.com

Woodside Energy

SPORT

Mason sprints toward future



Tuqiri Mason recently clocked a 100m time of 10.92s while barefoot on grass.

JOSEPH GUENZLER

Proud Gangalu athlete Tuqiri Mason is making a name for himself in the world of athletics at only 15 years of age.

Mason recently etched his name in the record books of NSW Hastings Secondary College after shattering a two-decade standing record in the 100m spring in the open and under-16- divisions.

Despite his nerves and running barefoot with no starting blocks or specific training, Mason clocked a staggering 10.92sec, passing Adam Miller's record set 20 years ago.

Miller, who became a notable Australian sprinter with a 100m PB of 10.17sec, showcased his skills on international stages including the 2004 Olympics, 2006 Commonwealth Games and 2007 IAAF World Championships.

Though Mason's favourite event is long jump, he is grateful for what he has been able to achieve so far with such little help.

"It feels incredible to have broken the record, I'm proud and grateful for this achievement," Mason told National Indigenous Times.

"My favourite event is long jump just because I get really nervous for my running events."

During the Lower North Coast Districts competition hosted in Coffs Harbour, Mason displayed his diverse athletic prowess by clinching first place in the 100m, 200m, and long jump events.

This feat has propelled him into the next phase of competition, a testament to his natural talent and skill which he hopes to take to the highest level.

"I'm only 15 going on 16 and would love to represent my culture and country and would like to see myself in the Olympics," he said.

"I have had lots of community support which encourages me to better myself."

Despite his high ceiling for potential, financial constraints loom as a hurdle in Tuqiri's path.

With a time frame of just one month, his family is seeking support to ensure he can compete in next month's NSWCHSSA (NSW Combined High Schools Sports Association) — Secondary Athletics — Championships.

His mum Candice is proud of her son's achievements and a firm believer in his potential in athletics. "His personality is family grounded and he's a pretty chilled relaxed young boy," she told National Indigenous Times.

"If he put his mind on his athletics he can go along way.

"I remember when he was in Year 3, he had to race against the Year 6 and 7 boys and he beat them. That's how I knew he had potential."

Mason will be competing from September 5-8, coinciding with his 16th birthday on September 7.

As he embarks on this next chapter of his athletic journey, a GoFundMe account has been established to help with registration fees, uniforms, accommodation and fuel.

JARRED CROSS

A trio of young Indigenous stars have been named in the AFL Players Association's 22under22 class for 2023.

The fan-voted contest presented Demons livewire Kysaiah Pickett with his third selection, and handed debuts to St Kilda bolter Nasiah Wanganeen-Milera and former No.1 draft pick and Bulldog Jamarra Ugle-Hagan.

The trio slot in the forward pocket, back pocket and centre-half-forward respectively.

Kozzie continues his electric start to AFL footy, leading the fourth-placed Dees' goal kicking this season.

The 22-year-old signed a four-year deal to remain at the club in May, already boasting a premiership in 2021.


Jamarra Ugle-Hagan, Kysaiah Pickett and Nasiah Wanganeen-Milera.

After establishing himself among the competition's most exciting prospects, St Kilda's Wanganeen-Milera has grown into his role as a damaging half-back. His exploits are beginning to compare with his uncle and 1993 Brownlow medallist Gavin Wanganeen, and he has shaped as a major influence in St Kilda's tilt at a deep September.

The 20-year-old hasn't dipped below 20 disposals since round nine for an average of 24 touches a game in 2023, and has three times eclipsed 30 — including career-high 33 disposal efforts against Melbourne and Hawthorn, adding a goal in the latter.

His previous best was 22 touches in round 12 of his debut season last year.

As well as finding the footy, the smooth-operating South Australian averages six marks and two tackles.

There's a sense of vindication for Western Bulldogs forward Ugle-Hagan in a breakout year.

The 21-year-old has gone a long way to proving whispers of doubt around his credentials wrong with 34 majors in 2023.

Ugle-Hagan was the second-most popular selection in the side, named in 88 per cent of all fan votes for their 22. Like most key position players, Ugle-Hagan has taken time to develop into a genuine weapon in his club's forward line.

Marra has matched personal best of five goals in a game, first kicked against Melbourne last year, twice in 2023, and inspired with the feat a week after enduring racial attacks from the stands earlier in the season.

The tall has threatened to become one of the game's biggest headaches for opposition defences, with only inaccuracy in front of goal — 34.35 so far in 2023 -— holding him back.

Carlton's Jesse Motlop missed out on selection after being named in the 22under22 squad of 40 earlier this month.

www.spec.com.au

Council decides offshore zone stance

CHALPAT SONTI

FOR or against? That's been the question asked of Glenelg Shire Council in relation to the proposed offshore wind farm zone and it has now provided an answer.

Councillors last Tuesday night unanimously endorsed a submission to the federal Climate Change, Energy, the Environment and Water Department on the zone, which takes in the entirety of the waters off the coast of the shire, as well as parts to the west and east.

The council will provide "in principle" support for offshore renewable energy projects but has called on the Commonwealth to considered concerns raised by the community now, and in the future when – if the zone is approved – projects move off the drawing board and closer to reality.

"Glenelg Shire Council strongly supports the need to transition to renewable energy sources, and trusts that the concerns raised by our community, especially regarding environmental protection matters, are duly considered in the assessment of the overall community consultation," the submission says.

"We look forward to working alongside our local community with federal and state governments, developers, industries and business to achieve zero emission targets for the benefit of future generations."



THOSE opposed to the proposed offshore wind farm zone have been giving like-minded residents a helping hand last week to let the federal government know what they think – here Ashlee Ludeman (right) of Considered Renewables helps Nita Tonkin fill in her survey at Portland Neighbourhood House in Pioneer Plaza on Tuesday last week. "I love wildlife," Ms Tonkin said. "If it was the Great Ocean Road they wouldn't dream of doing it down there and we've got just as much stuff here." Picture: KAREN HODGE 230822kh01-03

What the councillors said

The motion to endorse the submission was moved by Karen Stephens, who said that offshore wind power generation was a key part of the federal government's agenda – $14.5 million this year alone simply for a strategy – and the council had long supported renewable energy.

She also pointed out the proposed wind farms that might eventuate, should the zone be declared, were long term projects that would take up to seven years to finish the feasibility stage – as the *Observer* reported recently one of the three projects, the Cape Winds Offshore Wind Farm, believes it would not be generating power until 2033 at the earliest, with construction starting in 2030.

"There's a long way to go with these projects," Cr Stephens said.

"We've listened to our community, we've understood, we've listened to the Commonwealth consultation process, we've got all this background information and knowledge… and we'll make that submission."

Michael Carr also stressed that the zone declaration process was just one stage before any feasibility licences were approved.

Supporting the zone was also part of the council's plan and its 2040 community plan which called for decarbonisation and supporting renewable energy.

"Each offshore wind project has the potential to contribute thousands of jobs and hundreds of millions of dollars to the local community," Cr Carr said.

"Make no mistake fellow councillors, the Glenelg Shire and its community has the opportunity to be part of a once-in-a-generation economic boom that will last decades should it proceed."

That would be while at the same time decarbonising Australia's energy market and protecting existing local manufacturing jobs "and enabling the region to develop new jobs".

"I believe it would be irresponsible for this council to go against its own plan and community plan and say 'no our community does not want the area declared' during phase one of the process," Cr Carr said.

"We need to be supportive of the Commonwealth Government declaring the area so companies that wish to invest can proceed to phase two of the process, and be confident that the voices of our local communities can be considered."

Gilbert Wilson said offshore wind projects "should be supported for the good of the environment".

"This council supports Australia's renewable energy targets," he said.

"I believe that the effect of these floating turbines will be minimal at best.

"The zone will not overlap our marine parks and protected areas.

"There is no evidence that whales will be affected by the offshore wind farms."

The approvals process would take whale migration and calving patterns into consideration.

"Whale and Dolphin Conservation Australia says climate change… and heating of oceans is the greatest threat to ocean life," Cr Wilson said.

"The floating towers are known to provide great habitats for fish."

The towers would also be inside the Continental Shelf so would avoid the Bonney Upwelling, while the largest land colony of gannets at Point Danger nested near onshore wind towers.

Cr Wilson also questioned the impact on surfers, and the distance towers would be from shore – he said these could be anywhere up to 50km from shore "therefore they would be quite hard to see".

"As most of the towers would be anchored to the sea bed there will be no effect to the surfing beaches," he said.

"I believe not supporting this zone will increase the time of carbon reduction and will affect the marine life more."

Jayden Smith said the zone was a "great step in the right direction regarding emission reduction".

But he had two concerns – he would rather the wind farms be funded publicly rather than be owned by private companies and he was also concerned how politicised the subject of renewable energy had become in Australia.

The happy-go-lucky and "she'll be right" character of Australians was why "at such a late hour in time" the nation had scrambled to renewable energy production.

Cr Smith said he had been contacted by community members proposing nuclear energy as an alternative "but that's not something that's ever going to be on the table in Australia for a long time if ever given the attitudes around that".

However, the environment also needed to be considered.

"Our local ocean area is perfect for the offshore winds but it's also more than perfect for the current natural environment that it houses," he said.

"There's going to be much work done to make sure that the environment is looked after."

Plenty of people were excited by the economic opportunities offshore wind could bring to the region.

"I personally ask that (Chris Bowen the federal Climate Change and Energy Minister) takes all consultation on board," Cr Smith said.

Chrissy Hawker echoed that.

She said she acknowledged the need to transition to renewable energy.

"But it is critical that our community voices are considered as part of the consultation process," she said.

Mayor Scott Martin was the last to speak.

"The amount of misinformation out on social media has been staggering and quite frankly disturbing," he said.

"Declaring a zone doesn't mean that towers will be put in tomorrow, or at all," he said.

"This could all be for nothing – this is only stage one.

"Stage two is where interested companies put in their expressions of interest, that is where what I'd say the mission impossible starts for those companies regardless of whether they're fixed, floating or other (types of towers).

"Companies are required to put in a management plan where they are required to show how they can work with all user groups… and that is in the national interest.

"That may require a number of solutions, like monetary compensation."

Cr Martin said the council submission was "a very measured and sensible approach with the facts that we have on hand right now".

"I can appreciate the 'not in my back yard' mentality," he said.

"Like it or not we have the existing infrastructure, we are right in the Roaring Forties here, this is the ideal spot.

"I see South West Victoria and particularly the Glenelg Shire doing the heavy lifting when it comes to transitioning our country from fossil fuels to green energy."

"If there will be some negative impacts in our community… then we deserve some sort of compensation.

"For me, if we're going to power the country I think a good starting point would be for Glenelg Shire residents to never have an electricity bill again."

Cr Martin said "climate change is real".

"We need to make some tough decisions," he said.

"A community should be looked after if the burden of those tough decisions should fall on us.

"Recent history has shown from the other declared zones (Hunter in NSW and Gippsland) the Minister does consider submissions.

"If people are genuine about wanting to be heard by the federal government make a practical, logical, evidence based (submission) and the Minister said he will consider that."

"For me, if we're going to power the country I think a good starting point would be for Glenelg Shire residents to never have an electricity bill again." - Mayor Scott Martin

But wait, there's more

Earlier Cr Martin answered questions about the council's stance during public question time.

In response to some from Steve Liddicut, a landowner near Cape Bridgewater, he also pointed to "the amount of misinformation out there, not only in public and… social media" which he said was "not only staggering but disappointing".

"Several zones around Australia were publicly announced late last year," Cr Martin said.

"Really high level information has been available for quite some time.

"While I can appreciate some people may want answers yesterday, the reality is they do take time to come to council and to come to council meetings.

"At no point will the Glenelg Shire Council be doing community consultation on this or any part of the project for offshore wind.

"This is a federal project done in Commonwealth waters, completely outside of local government reach.

"I'm not sure how I can be clearer than that."

Michael Byrne asked how councillors could have considered the issue properly when "one councillor has been on holiday on Thailand, a councillor (has been) holidaying in Noosa and councillor (has been) on leave and just returned from England".

Cr Martin said "that is exactly why we didn't put a submission in straight away".

"We took the required amount of time to get the information to councillors," he said.

"Councillors have had the opportunity to ask questions, to gather information and to learn.

"I think it's pretty disingenuous to say that councillors haven't seen or read the papers, haven't (looked at) social media.

"We see, we do listen… I can assure you every councillor has had the opportunity to receive the information and to digest it."

ConocoPhillips

Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

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For more information:
E: otway@conocophillips.com | T: 07 3182 7122
conocophillips.com.au

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A unique insight into the past

CHALPAT SONTI

THOMAS Hannay might have only spent a few weeks in South West Victoria, but seldom can such a short stay have left such a long-lasting legacy.

And now that legacy has been preserved in an easy format for future generations, thanks to the Friends of the Vern McCallum Collection.

The group has published a book, *Thomas Hannay Travelling Photographer in the Colony of Victoria 1858-1859*, which details 123 photographs, beautifully reproduced, that give a unique insight into early European settlement – and correspondingly Aboriginal life – in the late 1850s.

While the photos are from as far away as Beechworth (Hannay was based in Maldon), most of the book is dedicated to a visit Hannay made to Portland in September 1859.

On a horse and cart he travelled here from the goldfields, working along the way as a travelling photographer, advertising his services and seeing great demand for a wide variety of photographs.

When in Portland he took the earliest known photograph of the settlement and the Bay, and even a photo of a sketch he is believed to have done of Portland's earliest building – the post office/police station/Customs house on the corner of Cliff and Charles Sts.

That sketch gives credence to the theory that Hannay passed through Portland in 1858 en route from Adelaide to Melbourne by ship as the building had been demolished by the time he was back here for his tour.

There are also photos of various notable settlers and their homes or properties, both in Portland and the wider district.

Then there are several photographs of Gunditjmara (and elsewhere other Aboriginal groups), the likes of the Ettrick homestead near Tyrendarra and around Merino, Digby and Hotspur up to Sandford.

After leaving the district Hannay ventured east through Tower Hill, Woodford and Woolsthorpe through to Mortlake and Camperdown and eventually Queenscliff.

The book was officially launched at the Julia Street Creative Space on Thursday evening, at a function featuring renowned *Age* journalist (and keen student of local history) Tony Wright and with invited guests from as far afield as Mortlake and Camperdown.

While it was to be authored by Geoff Corner, the Canberra-based brother-in-law of Vern McCallum, Mr Corner passed away in 2021 after having written the introduction.

So Friends group members Phil Ruge (secretary), Garry Kerr (chairman) and Mr McCallum (custodian of the collection that bears his name) set about putting it all together.

"What we did is finish off what he (Mr Corner) started," Mr McCallum said.

"I think that's a very important thing."

The start probably goes back a bit beyond that when Mr McCallum received the Hannay collection photos from the widow of the late Joe Wiltshire, longtime Portland historian.

"Vern always had the desire, because of the fact they were taken 25 years after the settlement of the colony of Victoria, to publish them and they had never been published as a book before," Mr Ruge said.

"Geoff Corner volunteered to put it together and after he died we finished it last year.

"We were fortunate in being given some funding towards the cost of publishing the book."

That was through the Gwen and Edna Jones Foundation, Ray and Joyce Uebergang Foundation and the Port of Portland's community grants program.

"They saw the value in the book and in it being produced," Mr Ruge said.

But the Friends group is also hopeful the book might unearth other photographs Hannay took on his trip, as well as more information about those in the first edition – the most the authors had to go on was occasional titles Hannay gave to photos.

Mr McCallum said what made Hannay's photos stand out was that they were not just of settlers – which was standard in those days – but also of properties, surroundings and Aboriginal people.

Mr Ruge said it gave an insight into the life and times of both early settlers and Indigenous people affected by that settlement in the Western Districts.

The beautifully produced hardcover book sells for $90 – it is limited to 500 copies – and is available from the Julia Street Creative Space.

It can also be posted ($15 extra) and anyone wanting to buy it that way should email mccallumcollection@bigpond.com.



THE editorial team behind the book… Friends of the Vern McCallum chairman Garry Kerr, Vern McCallum and Friends secretary Phil Ruge with the group's latest venture at its official launch in Portland on Thursday evening. Picture: KAREN HODGE 230831kh21



THEY came from near and far for the book launch at the Julia Street Creative Space. Picture: KAREN HODGE 230831kh19



AN eye for detail… *Thomas Hannay Travelling Photographer in the Colony of Victoria 1858-1859* is a beautifully produced book. Pictures: KAREN HODGE 230831kh24-30

ConocoPhillips

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RICHARD Mangan of Ultimate Technology Group installs the warning lights at the Lighthouse Ave/Bentinck St intersection as Portland Cable Trams volunteers Lou McKay, Don Tapscott and chairman Des Hein, who helped him with the project, watch on. LEFT:PORTLAND Cable Trams chairman Des Hein does some work on the Lighthouse/Ave warning lights. Pictures: LEESA COOK 230914lc01/04

Now you know they're coming

CHALPAT SONTI

THE conductor getting off the tram to warn traffic it is coming is now a thing of the past, thanks to the flow-on from the winding up of Portland WorkSkills – and there's more to come.

Portland Cable Trams was one of the groups that received a substantial donation from the winding up last year, and one of its projects was completed on Thursday.

That was the installation of warning lights at the intersections it crosses along Bentinck St – Lighthouse Ave and Wade St – as well as an electronic sign near Henty Park advising the public if it is open or not.

The warning signs complement the one at Cliff St/Lee Breakwater Rd, the major intersection the trams cross.

Trams chairman Des Hein was one of three volunteers – Lou McKay and Don Tapscott being the others – who helped Kinglake-based Richard Mangan of Ultimate Technology Group install the signs.

"This is all due to the WorkSkills money," Mr Hein said.

"Now we're completely set up with intersections with lights and the conductors don't have to get off at all."

Mr Hein said tram drivers were still getting frustrated with the number of vehicles running the light at the Cliff St/Lee Breakwater Rd intersection.

A police spokeswoman said such behaviour came under the category of failing to stop or give way at a level crossing or unlawfully entering it when devices were operating and was punishable by a $962 fine and four demerit points.

Mr Hein said a police patrol nabbed at least one driver recently.

"If the lights come on and they have time to stop and they don't, they will be booked," he said.

"But we don't want people getting fined – we've installed some extra sensors so the light goes off as soon as the tram leaves the road.

"We've spent a lot of extra money to make it user friendly and we just want drivers to obey the rules."

The next big project that Trams will do with WorkSkills money is electrifying its tram, at a cost of about $90,000, and perhaps even more reason for the warning lights to be installed first.

"They'll run off lithium batteries and will run so quiet they'll sneak up on you," Mr Hein said.

"That will be good, it's just a matter of time before diesel trams won't be allowed."

The third project courtesy of the WorkSkills money is due to take place in March next year, when a storage building will be erected next to the Trams shed at Henty Park.

"When you think where we've come from, this is great," Mr Hein said.

Meanwhile, Mr Hein said volunteers were disappointed by some recent vandalism of the tram stop on the cliffs overlooking the Maritime Discovery Centre.

The perspex windows in the stop have been smashed about six times in the past six weeks, and are now boarded up waiting for replacements.

"We've been there 21 years and nothing much has ever happened – they're an asset to the town and it's disappointing for the volunteers when this sort of thing happens," Mr Hein said.

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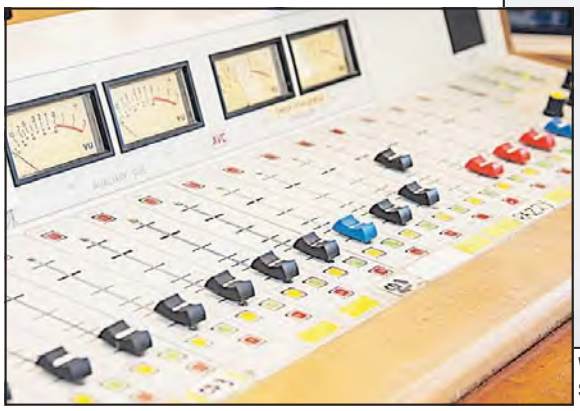




THE new sign on Bentinck St that lets the public know whether the trams are operating.
Picture: LEESA COOK
230914lc32

LEFT: THE tram stop on the cliffs was recently vandalised.
Picture: LEESA COOK
230914lc26







WE want you – Hilary Endacott and Les Horovitz are looking for more volunteers to join them at community radio station 3RPC.

All pictures: LEESA COOK 230921lc21-30



'To survive, we need new people'

CHALPAT SONTI

COMMUNITY radio station 3RPC has been serving Portland and district for more than 40 years – but warns it won't be around for anywhere near that amount of time in future if it can't find more volunteers.

Like many local community organisations, the station is suffering from being unable to attract people to help out, the pressure on those remaining growing more as they also grow older.

From a high of more than 500 members and 50 presenters in its heyday, 3RPC is down to about 100 members and 27 presenters now, run by a committee of five.

"We're in dire need of further people involved as members, volunteers and presenters," said treasurer Les Horovitz.

"And possible sponsors as well – it is difficult to get them at the moment."

And as much as all that, there is one group in particular the station would like to attract in those roles.

"We want the younger generation to join our ranks," Mr Horovitz said.

"We do have a couple of younger presenters who play younger-type music but we need more – but we're looking for anybody, it doesn't matter the age, the wider the variety of music the better."

'We do have a couple of younger presenters who play younger-type music but we need more – but we're looking for anybody, it doesn't matter the age, the wider the variety of music the better'
- Les Horovitz

Mr Horovitz pointed to other benefits for younger people.

"It's an outlet for younger people who want a career in media, broadcasting or journalism or an outlet for their music or speaking skills," he said.

"I'm now a full time professional voiceover artist and 3RPC kicked me off in that.

"3RPC is very important for Portland and the Glenelg Shire but in order for it to survive we need more people.

"A lot of people in the community have been doing this for a very long time and it's time for other people to grab the baton and run with it."

Mr Horovitz has been with the station for more than 11 years, about 10 of those as treasurer.

Chairwoman Jenny Brydson and secretary Hilary Endacott, both life members, have been there more than 25 years – Ms Brydson has also been the office manager and did three programs a week herself at one stage.

Ms Endacott said listeners "need to hear a live voice", and those needed to be different ones.

"Quite a lot of us are getting elderly," she said.

"We're not going to go on with it for 30 more years.

"In the early days of the station everybody was 40 years younger and there was a great deal of energy and enthusiasm and we had a lot of support.

"I suppose considering everything (the introduction of the internet and streaming, which 3RPC does through its website) although we're operating on much fewer numbers, we have kept up technologically, but it is tiring.

"We love our station which is why we're here and continuing to be here but we just want more help."

Ms Endacott said 3RPC had a dedicated group of listeners. Apart from local residents, many others have the radio as company – forestry and trawler workers and truck drivers were all regulars.

"We'd love to have someone who could do a late night program for them," she said.

The station has also been a regular at many local events, broadcasting from the likes of the Upwelling Festival, Christmas Carols and Anzac and Australia Day ceremonies.

"In the past we have broadcast soccer and basketball as well," Mr Horovitz said.

"We could do sport and similar things again – those things are possible if we had a lot more people to help us."

That also includes people to help with 3RPC's major fundraiser – Thursday evening bingo at the Fawthrop Centre which raises about $20,000 a year to keep the station going – 10 tireless volunteers do that at present.

"If we had enough people we could do a roster," Mr Horovitz said.

Anyone interested in joining 3RPC as a member, presenter, community organisation or sponsor can drop into the office, on the corner of Julia and Richmond Sts, on Mondays between 9am and 1pm, call and leave a message outside those hours on 5523 4333, email 3rpcfm@3rpcfm.org.au or visit 3rpcfm.org.au.

ConocoPhillips

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Classifieds ONLINE PLACEMENT

FOR HIRE

SKIPBIN, 1 to 18 M3 bins, waste removal, commercial, residential. Contact Kelcar 0417 018 874.

FOR SALE

CARAVAN, Grand Salute Royal Guard Series II, 22', off-road, all mod cons, one owner, many extras / spare parts, excellent condition; $79,950. 0427 112 806. Email for photos: gasmark@bigpond.com

CHRISTMAS TREES
Melobeda
Farm Sales:
292 Bothe's Rd,
Gorae West
From Sat, 25th Nov,
Sat/Sun
10am - 6pm
Town Sales:
Masonic Lodge
Carpark
(Opposite McDonald's)
From Thurs, 30th Nov
Thurs/Fri 1-6pm &
Sat 9am-1pm
Visit FB/Insta for more information

F250 fuel tank, 120 litres; $100 o.n.o. Phone 0419 867 633.

FREE - Upright piano, old, tuned, good condition, pick up only. 0456 596 078.

FULL size push bike; $350. 0418 549 522.

JACOBEAN couch and 2 chairs, very good condition; $100. Phone 0409 372 731.

NUMBER of white single flat sheets, some Actil, v.g.c.; $8 each. Phone 0419 867 633.

WEBER Q BBQ, all attachments, with cover, never used; $450. 0416 070 829.

GARAGE SALE

46 Aberdeen St, Fri-Sat, 8am. Lots of bargains. Jayco caravan, pool table and extras, Sidchrome tools, household goods.

LOST

BLACK swimmer's watch, lost at Nun's Beach. Please phone 0418 527 267.

WORK WANTED

ANTENNA installations and service, including TV wall mounting, TV points and tuning. Call Peter Logan 0419 368 711.

WORK WANTED

SNC TreeTech
Certified Arborists/Climbers

- Tree Pruning & Removal
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Shaun Clark
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Your local qualified Arborist

CONCRETING, all types. B.M. Jennings Concreting, phone Brent 0424 934 721.

TREES TOP TECHNICIANS. Arborist. Free quotes and advice. PORTLAND 0422 228 766.

MEETINGS

Portland RSL Sub Branch Inc
A.G.M.
Tuesday, 5th Dec
7pm
IN THE ROOMS
21 Percy St
All welcome

GENERAL

Lions Club of Heywood Inc

CLEARANCE SALE

ANOTHER HEYWOOD LIONS CLUB PROJECT

Sunday, 26th November - 10:30am

A/c. Jeannie and the Late Bob Crooks

3907 Princes Highway Lyons 20km N of Heywood

Aluminium Fishing Boat, Rods, Tools, Press Drills, Metal Lathe, Welder, Power Tools, Shearing Grinder, Steel Shelving, Steel Work Benches, Mobile Overhead Gantry, Honda Generator, Hydraulic Press, Antique Avery Platform Scales, Sunshine Farm Gates, Plus a large quantity of sundries and Collectables.

Auctioneer - Bruce Lowenthall

Refreshments supplied by Heywood Lions.

OLK2148523

Enquiries: Gavin 0473 238 734, Rex 0448 841 672

HEALTH & BEAUTY

HEALING Energies massage clinic, remedial, relaxation, pregnancy massage, Indian head massage, reflexology, ear candeling. Phone Paula 0429 487 342.

DEATH

CARR - Frank William "Bill". Passed away peacefully on 15/11/2023 aged 78 years. Loved Dad and Father-in-Law of Nicki and Mark. Cherished Poppy of Lexie and Ben.
"Forever in our hearts"

PARKER - Thomas Edward, passed away peacefully at Harbour-side Lodge, Portland on 20/11/23, aged 97 years.
Loving husband of Daisy; father of Douglass and Jeanette; father-in-law of Joy; Dear pa Tom to his grandchildren and great grandchildren.
Forever remembered.

PARKER - Thomas.
Loving husband of Daisy.
72 wonderful years of marriage.
At peace.

PARKER - Thomas Edward.
Much loved father of Doug and Joy; Pa Tom of Paul and Christelle, Nicole and Shane, and Scott; Great Pa of Zavier, Levi, Brocklan, Ceejay and Ducati.
Remembered always, so sadly missed.



DEATH

PARKER - Thomas.
Adored father of Jeanette and grand-father of Jeremy and Celeste; loved great pa of Jack, Noah and Maya.
Forever in our hearts.

SUTHERLAND - Stuart "Stewy", passed away on 14/11/2023. Loved Dad of Reece and Rhianne. Loved Pop of Aria, Mia, Carter and Levi.
"Higher Than Heaven"

FUNERAL

CARR - The Funeral Service for the late FRANK WILLIAM "BILL" CARR is to be held at the GRAVESIDE, Portland South Cemetery, Cape Nelson Road, Portland on TUESDAY the 28th NOVEMBER commencing at 2.00pm.

PORTLAND FUNERAL SERVICES
140 Percy Street,
Portland, 3305
Phone (03) 5523 2078

SUTHERLAND - The Funeral Service for the late STUART "STEWY" SUTHERLAND is to be held at THE ROYAL HOTEL, Percy Street, Portland on FRIDAY, the 24th NOVEMBER commencing at 12PM.

PRIVATELY CREMATED

PORTLAND FUNERAL SERVICES
140 Percy Street,
Portland, 3305
Phone (03) 5523 2078

EMPLOYMENT

Robertson CIVIL SERVICES

CAPITAL WORKS/ PROCUREMENT CO-ORDINATOR

Robertson Civil Services is a local family-owned company working as an embedded contractor to Portland Aluminium.

We are currently looking for expressions of interest for a Capital Works/Procurement Co-ordinator

The capital works/procurement co-ordinator will be responsible for;

- Provide estimates in line with SOWs and specifications.
- Engage and liaise with relevant site and external stakeholders.
- Source and secure the best cost-effective sub-contractor and material supply chains.
- Control project planning and schedules from inception to completion.
- Work with relevant parties to complete projects, ensuring compliance with permits, approvals, and safety plans.
- Complete site access approvals for external sub-contractors.
- Work closely with site teams and external companies to minimise disruptions to daily operations.
- Have a safety and can-do problem-solving attitude.

For more information on this role you can contact Jason Mitchell on 0408 104 478

Resumes can be forwarded to;
E: tessa.compton@rcsportland.com.au
M: PO Box 850, Portland VIC 3305

Applications close COB 1st December 2023

OLK0344323

PUBLIC NOTICE

beach

Community Information Webinars

To continue meeting natural gas demand from homes, business and industry, Beach Energy has commenced planning and consultation for the Offshore Gas Victoria (OGV) Project.

The webinars will enable the local community to learn more about the OGV Project, which is considering a range of activity in the Commonwealth waters across several phases. These webinars will focus on drilling and plug and abandonment activities.

We are committed to working with our local communities, ensuring people are informed of our projects and can provide feedback. Stakeholder consultation is an important part of our planning as it helps identify any local concerns and ensures management of potential impacts.

If you would like to ask our technical staff questions about our projects, or provide feedback, please register your interest in joining one or more of the webinars by emailing community@beachenergy.com.au.

Wednesday 22 November 2023, 5pm to 6pm AEDT
Drilling and Plug and Abandonment activities explained, including Q & A

Wednesday 29 November 2023, 12pm to 12.30pm AEDT
Drilling Q & A with Beach technical team

Thursday 30 November 2023, 1.30pm – 2pm AEDT
Plug and Abandonment Q & A with Beach technical team

We welcome your questions, please contact:

P 1800 797 011
E community@beachenergy.com.au
engage.beachenergy.com.au/

READ MORE

GD23-0274

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CAN130603CP

efficient German makeover



According to DocoMomo Australia, a heritage site specialising in modern architecture, early versions of demountables (called mobile or portables in some states) were considered "superior" to permanent classrooms in space and facilities, and included sun shading.

In 1966, they were envisaged as a temporary fix. This author's classrooms at Lindfield Public School are still there more than 50 years later.

Self-described design nerd Tim Ross said he had powerful memories dating back to his time in a portable classroom. In □e□□□□□□a □e□a□□on ABC, Ross said the humble demountable was an Australian design legend.

"They're robust, they're practical and they're pretty much unchanged, apart from some much-needed heating and cooling."

And despite "the amazing longevity of the portable classrooms, they've never been properly appreciated", he said.

Ross said Australian Pritzker prize-winning architect Glenn Murcutt's most-awarded buildings had some similarities with the demountables: they were long and thin and sat on the earth lightly.

The demountables also slotted into the landscape, said Menden.

HARDSHIP NOTICES

Westpac sued over delays in customer aid

Mi i Mu oi

Westpac could face millions of dollars in penalties for failing to respond to customers' hardship notices quickly enough if the Federal Court rules in favour of the corporate regulator.

The Australian Securities and Investments Commission (ASIC) will today say it has commenced civil penalty proceedings against the bank in the Federal Court, alleging that 229 Westpac customers from 2015 to 2022 did not receive a response to their hardship notice within the required timeframe.

ASIC deputy chair Sarah Court said the regulator had taken court action to highlight the importance of lenders reducing harm to their customers by responding to hardship notices within the timeframe required by law.

"Submitting a hardship notice, which results in a change to the credit contract, can be a lifeline for people experiencing challenging financial circumstances," she said. "Westpac's failures to respond to these notices compounded their customers' difficult financial circumstances."

It comes as some indicators of financial stress on households are starting to pick up, with banks warning the full impact of rate rises is yet to flow through, although arrears and delinquencies among the major banks remain below historical averages. Westpac said last month the proportion of customers more than 90 days behind on their repayments rose by 7 basis points to 0.8 per cent of its loan book.

Last week, the regulator published an open letter to 30 large lenders urging them to step up their support for customers experiencing financial hardship amid a 29 per cent increase in calls to the National Debt Hotline compared with the same time last year.

ASIC said many customers allegedly affected by Westpac's failure to respond to hardship notices also disclosed difficult circumstances and vulnerabilities, including their inability to work, the impacts of serious medical conditions or carer responsibilities.

"In some cases, customers endured debt collection activities by Westpac while waiting for the bank to respond to their hardship notices," the regulator said.

A lender has 21 days to notify the customers if it does not agree to change the contract or if it requires further information to make its decision.

ASIC has alleged Westpac breached the National Credit Code by failing to respond within that timeframe and by failing to act efficiently, honestly and fairly when it came to responding to its customers' hardship notices.

In its concise statement filed to the Federal Court yesterday, ASIC alleged the issues came about as a result of a Westpac system failure and/or IT error.

Westpac group chief information officer Scott Collary has acknowledged the civil penalty proceedings and said the technology failure meant the bank did not provide some of its customers with the help they needed. "For this, we are deeply sorry," he said.

Collary added since uncovering the issue, the bank had contacted affected customers and completed a remediation program including refunds of fees and interest, debt waivers and payments for non-financial loss, totalling about $900,000.

ASIC has also alleged that Westpac did not do enough to investigate and rectify the systems issues plaguing its online hardship notification process and is seeking declarations, pecuniary penalties and adverse publicity orders against the bank from the court.

Relevant Person Consultation:

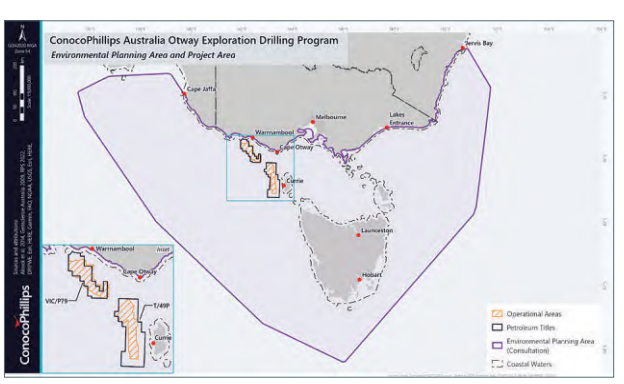
ConocoPhillips

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SCAN HERE

For more information:
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CMM29891CP_SYD

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RARE GENETIC CONDITIONS

Study aims to unravel dementia riddles

Angus Thomson
Health reporter

Mostly, Charlotte Colley is just like any other two-year-old. She goes to daycare, loves splashing in the pool or at the beach, and has no problems letting her parents Brett Colley and Sarah Matthews know exactly what she wants.

"She is very vocal for someone who's non-verbal," Colley said. "She makes you work for the smiles and the laughs, but she's got a lot of sass and she's a brave little thing."

But Charlotte's doctors and parents aren't sure if she will be able to walk, talk or swallow food. In November, she was diagnosed with Cockayne syndrome, an extremely rare and inherited condition affecting the neurological development of children.

It is one of more than 150 rare genetic conditions Australian scientists have identified as causing dementia in children in world-first research that hopes to boost scientific and public understanding of a condition most people don't even know exists.

The study, published in the journal *Brain*, estimated that more than 100 babies born in Australia each year would develop childhood dementia, a similar number to those born with cystic fibrosis.

The 91 Australians who died from the condition in 2021 are only slightly fewer than the number of children who died from cancer before the age of 15.



Sarah atthews cuddles Charlotte, dia nosed last year with a form of dementia. Photo: Steven Siewert

The conditions are all marked by a period of development before the often rapid onset of symptoms of premature ageing. Life expectancy is nine years, and 70 per cent don't live to see their 18th birthdays.

Lead author Dr Nick Smith from Adelaide University said some of the genetic abnormalities that cause dementia in adults can also cause dementia in children, such as the defect in one gene which causes both Gaucher's disease in children and Parkinson's in adults.

"The usual reaction you get is that this doesn't happen to children, but quite the contrary; this is a condition that young people in our community are dealing with," he said.

Megan Maack, who commissioned the research as chief executive and director of the Childhood Dementia Initiative, said grouping the conditions together for the first time would help researchers and policymakers understand the scale of the problem.

"Historically, the hundred-plus conditions that cause childhood dementia have been understood in isolation, and so the way we research, the way we care, the way we set policy, has been very fragmented," she said. "While the genetic cause is different, the challenges families face are all common, so it makes sense to look at them all together."

Maack, who has two children with childhood dementia caused by Sanfilippo syndrome, said most families received support through the NDIS, but had to fight to receive proper care for their children.

"Getting a diagnosis for one of these conditions is really difficult," she said. "And once they're diagnosed, there are no care pathways, no consistent models of care ... palliative care services aren't set up to care for kids with childhood dementia."

Matthews, from Dulwich Hill in Sydney, said she was proud of the way Australia's medical system had supported their daughter, but the past two years had been a constant search for answers involving dozens of medical specialists and few explanations.

"I'm a lawyer for a living, but I feel like I've never had to advocate as I have had to do, to get Charlotte to stand out and to say this isn't something that she's going to grow out of," Matthews said.

"If there's going to be gene therapies, then early diagnosis and early treatment will be absolutely critical."

Australian-made cancer drug wins billion-dollar approval

Liam Mannix

A drug invented in Australia to treat a lethal bone marrow cancer is set to become a billion-dollar global blockbuster after US regulators on Friday gave it the green light to be sold there.

Momelotinib was invented by an Australian team in Melbourne in the late 1990s, and the drug was bought by pharma giant GSK in 2022 for $US1.9 billion ($2.95 billion). It is used to treat myelofibrosis, a rare and devastating disease that leads to bone marrow "burnout".

Getting a drug from lab bench to patients is a long, expensive and usually unsuccessful process. For all the medical discoveries made around the world every day, Australia approves only about 40 new drugs every year.

After winning approval in the US to treat myelofibrosis, GSK expects the drug to generate more than $US1 billion in sales each year. The company is expected to apply for approval globally.

Both the key underlying cause of myelofibrosis and the treatment were discovered in Melbourne.

"There are few stories that really encapsulate how great Australian science can be better than this one," said Professor Mark Dawson, co-head of the Cancer Biology and Therapeutics Program at the Peter MacCallum Cancer Centre. He was not involved in the drug's development.

Yesterday afternoon, Professor Andrew Wilks was drinking champagne to celebrate an achievement three decades in the making.

Wilks discovered the Janus kinases molecule in 1989. Momelotinib is named after Melbourne, the city where he and chemist Dr Chris Burns first sketched out the molecule.

"How long's that, 35 years? I was young and lovely when I started this thing," Wilks said.

Myelofibrosis is rare, poorly understood and devastating. The disease appears driven by a dysfunction in a family of proteins known as Janus kinases.

These proteins are named after the Roman god of duality because they play key roles in both manufacturing and regulating blood cell production.

In the early 2000s, researchers around the world linked genetic dysfunction in the newly discovered kinases to a pair of diseases in which the proteins go rogue, pumping out far too many blood cells. The bone marrow strains under the demands of excess production, and begins to inflame. Over time, this inflammation scars the sensitive tissue.

Eventually, the marrow reaches what Dawson calls the "burnout phase". Where once they made too many red blood cells, they now make too few, leaving patients anaemic.

Relevant Person Consultation:

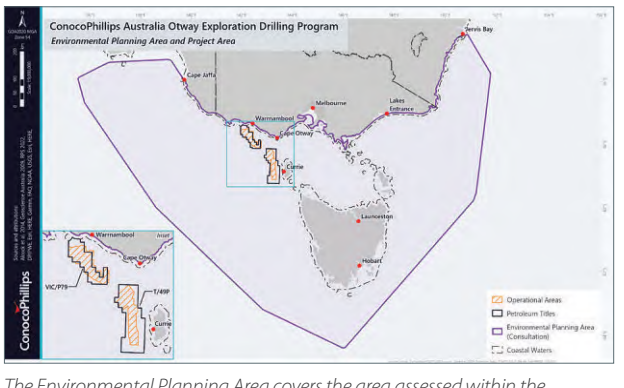
ConocoPhillips

ConocoPhillips Australia Otway Exploration Drilling Program

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HEATWAVES

Nation urged to prepare for summer's silent killer

Natassia Chrysanthos, Angus Thompson



Bathers cool off at Bronte. Warnings have been issued about a dangerous summer. Photo: Dion Georgopoulos

Heatwaves are a silent killer that lead to more deaths each year than natural disasters and Australians need to be prepared for them, Emergency Management Minister Murray Watt has said ahead of the country's hottest and driest weather since Black Summer.

Sydney, Canberra and Melbourne have all endured heatwaves this month and the Bureau of Meteorology last week declared an El Nino event and a positive Indian Ocean Dipole were in play.

Watt said that would bring a more difficult summer, in terms of hot weather risk, than the country had seen since the Black Summer of 2019-20.

"And while there's been a lot of focus on bushfires, one of the other risks is heatwaves, which are the silent killer," he said. "Actually, we lose more people to heatwaves every year than we do from other forms of natural disasters."

As the federal government convened its first major summit of 2023 for emergency services, different governments and the private sector to get ready for summer, Watt said the elderly and the disabled were at greatest risk.

"Some people will be better positioned than others, depending whether they have airconditioning in their homes," he said. "But we're also working with local governments around public libraries, swimming pools, public facilities that people can use to get relief in those heatwave conditions."

Foodbank chief executive Brianna Casey said she was particularly concerned about the impact on cash-strapped clients who "just don't have the resilience that we need right now".

"We've already got people seeking food relief, bringing in empty containers of water for us to actually freeze on their behalf in lieu of freezers because they can't afford the running costs of keeping fridges and freezers on," she said.

Emergency Management Australia director-general Joe Buffone said the agency had been learning from North America and Europe, which battled extreme heat and fires.

"There is a national framework that makes sure there's consistency and warning," he said.

"We're also working with the energy sector and with health sectors to make sure they are acutely aware of the potential impacts of heat.

"The big focus is around people making sure that they have the information to protect themselves and have support. Look after your neighbours, in particular the elderly, and those that have [mobility issues]. An important part of that is making sure that they get early warning, they're prepared and they stay cool, they stay hydrated, and they take advice from the warnings from emergency services [and] the health sector."

The Bureau of Meteorology's heatwave warning service provides alerts via its mobile app four days in advance.

The alert provides a warning as well as health messages tailored to particular areas or at-risk communities.

"It's a very powerful way of giving the community insight around a heatwave coming," the bureau's chief executive Andrew Johnson said. Messages would also be issued on social media.

He said his agency was also working with the national energy network to manage supply during extreme heat.

For example, fewer electrons are sent down transmission power connectors during hot weather because energy systems can no longer sustain the same voltages, and power lines sag.

"It's a very, very complex system. There's always a risk from severe weather, right through the power grid," Johnson said.

"As a [former chief executive] once told me the history of this country is that our power has been run by fossil fuels. But the future of our power in this country will be run by the weather.

"The weather plays an absolutely vital role both on demand and supply side, so we put a very significant effort into working side by side with all the players in the system."

Nuclear medicine factory at old reactor

Liam Mannix

Hundreds of millions of dollars will be spent building a new radioactive medicine factory at the Lucas Heights nuclear reactor in Sydney, replacing an ageing and accident-prone facility.

The new manufacturing centre will produce the radioactive drugs doctors use to image the heart, lungs, kidney and brain for diagnosing and tracing diseases such as cancer. The current facility has been plagued by safety breaches, including in 2017, when a worker suffered radiation burns.

The government has been tight-lipped on costs ahead of a competitive tender process, but equivalent facilities in other countries have often come with price tags exceeding $400 million. The factory is expected to open in the mid-2030s.

"ANSTO's [the Australian Nuclear Science and Technology Organisation] nuclear medicine precinct in Sydney will revolutionise the domestic production of nuclear medicines and improve the lives of thousands of Australians," said Science Minister Ed Husic.

The facility will replace Lucas Heights' trouble-plagued Building 23, built in 1959 as a research laboratory and later repurposed to make nuclear medicine.

Building 23 recorded seven "events with safety implications" in 2017 and 2018.

The worst of these occurred in 2017, when a worker dropped a vial of radioactive Molybdenum-99, covering their hands in the liquid.

"Building 23 was designed and built in the 1950s and is scheduled to reach its end of life by the end of the 2030s," said Ian Martin, ANSTO's general manager of nuclear medicine. "It [has] served Australia very well, I think. But it's an ageing facility that this [new] facility will replace."

Like the current facility, the new one will assemble and test nuclear medical products, particularly Molybdenum-99, or Mo-99.

ANSTO supplies about 12,000 doses a week to facilities across Australia and the region.

Relevant Person Consultation:

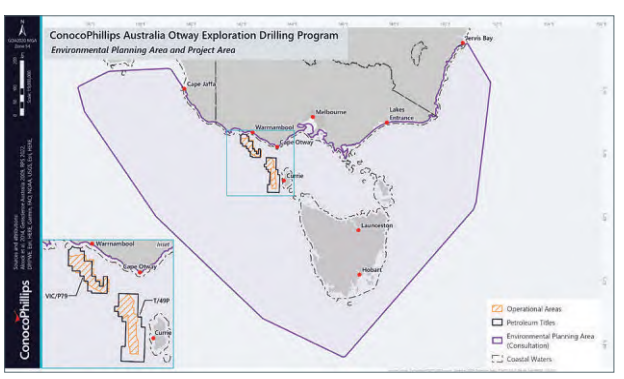
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LEHRMANN CASE

Ten seeks evidence on intoxication

Michaela Whitbourn
Legal affairs

Network Ten is seeking to rely on expert evidence in Bruce Lehrmann's defamation case about sexual assault victims' typical behaviour and Brittany Higgins' level of intoxication on the night she alleges she was raped by Lehrmann in Parliament House.

The Federal Court trial against the broadcaster is slated to start in Sydney on November 22. Barrister Tim Senior, acting for Ten, yesterday told the court at a preliminary hearing that the network would call 28 witnesses, including Higgins and journalist Lisa Wilkinson.

Senior said Ten also wanted to tender two expert reports, on "the reactions and responses of victims of sexual assault … and how things like memory may be affected", and a toxicology expert's opinion about Higgins' level of intoxication on the night in question.

Matthew Richardson, SC, acting for Lehrmann, said the first report, written by a clinical psychologist, offered not only an opinion about "the typical behaviour of victims of sexual assault" but "also posits opinions that, for instance, false complaints are rare". "There certainly will be objection to that evidence, starting from … whether or not there is a recognised field of expertise and so on, but also the conclusions and the opinions that are expressed, we would say, have no sufficient factual foundation," Richardson said.

"It really appears to be an analysis of academic papers. As to whether we will object to the toxicology report, we just haven't come to a view yet."

Justice Michael Lee said questions about the admissibility of the first report would be determined before the trial.

Lehrmann filed Federal Court defamation proceedings against Ten in February over an interview Wilkinson conducted with his former colleague Higgins on *The Project*, broadcast on February 15, 2021. Separate proceedings against News Corp, filed at the same time, have since settled.





Bruce Lehrmann is suing Network Ten over an aired interview conducted with his former colleague Brittany Higgins. Photos: Alex Ellinghausen

He alleges the interview conveyed a series of defamatory meanings, including that he raped Higgins in former defence industry minister Linda Reynolds' office on March 23, 2019.

Lehrmann was not named in the broadcast, but his lawyers say he was identified via other means.

If the court finds Lehrmann was identified, Ten and Wilkinson admit they conveyed the defamatory claims alleged, including the central claim of rape, and will seek to rely chiefly on defences of truth and qualified privilege, a defence relating to publications of public interest which requires an outlet to have acted reasonably.

Lehrmann is also suing the ABC for defamation for broadcasting a National Press Club address last year by Grace Tame and Higgins. Lee yesterday said the ABC proceedings would be heard at the same time as the Ten case. The broadcaster proposes to call five witnesses.

Lehrmann was named in the media in August 2021, six months after the Ten interview, when he was charged with sexual intercourse without consent.

He pleaded not guilty to the charge. His trial was aborted in October last year due to juror misconduct. The charge was later dropped amid concerns about Higgins' mental health. Lehrmann has always maintained his innocence.

At least sale of Karvan's Bondi estate has approval



Carmen Forward

Actress Claudia Karvan sold her late father's Bondi Beach estate at auction on Saturday for $989,000.

The oversized art deco apartment in Francis Street attracted nine buyers, mostly first home buyers.

Buyers were undeterred to hear the property featured non-approved space such as a workshop and laundry accessible below the kitchen and a courtyard, all common property but claimed by the owner during his 20 years living there. The floor plan on the listing labels this area as "not approved common property".

The guide was initially $950,000, but after the agency received letters from strata in regards to the title it was lowered to $850,000.

Bidding opened at $700,000 in front of a curious crowd.



It's been emotional: Claudia Karvan's Bondi property had been in the family for generations. Karvan photo: Wolter Peeters

After five $25,000 bids between five parties, bids of $5000 were placed until the reserve of $835,000 was met. Further $5000, $2000 and $1000 bids were placed until it sold for $989,000 to a first home buyer pair of sisters.

This was one of 736 homes scheduled to go under the hammer in Sydney on the weekend. By evening, Domain Group recorded a preliminary auction clearance rate of 74 per cent from 440 reported results, while 81 auctions were withdrawn.

Withdrawn auctions are counted as unsold properties when calculating the clearance rate.

Selling agent Brigitte Blackman from BresicWhitney Inner East, said the property had been in the family for generations so, although happy with the result, it was an emotional outcome for "one of our best actresses". "There was one bedroom and one sunroom. It was a good entry point for someone to get into Bondi Beach," Blackman said.

Auctioneer Thomas McGlynn, CEO of BresicWhitney, said it was a great experience to call an auction of predominantly first home buyers ready to bid. "They showed a lot of courage to bid in the way that they bid," he said. "A lot of the first home buyers in that particular situation did a really great job to put themselves in a financial position to buy."

A few beaches along, a five-bedroom house located at 62 Sackville Street in Maroubra sold for $5,475,000 to a family upsizing from a semi in Coogee.

Relevant Person Consultation:

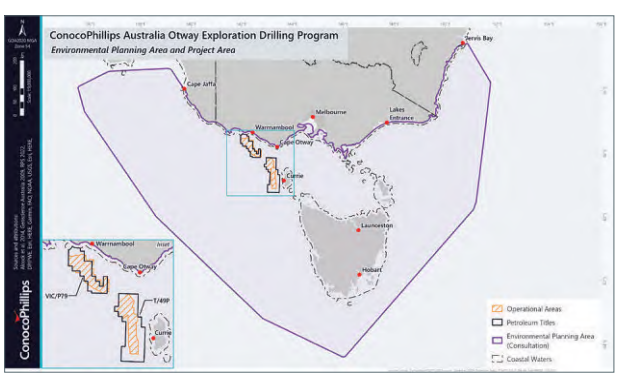
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Noticeboard

NSW Electoral Commission

Application to amend the Register of Parties

The Electoral Commissioner for NSW has received the following application from *The Greens NSW* to amend the Register of Parties under the provisions of the *Electoral Act 2017*:

- Amend the party's written constitution
- Update the registered party information to include the names of the officers or members of the party responsible for ensuring the party complies with the *Electoral Act 2017* and the *Electoral Funding Act 2018*

The other particulars (see below) in the Register of Parties relating to *The Greens NSW* remain unchanged:

Registered party name: **The Greens NSW**

Registered abbreviation: **The Greens**

Registered officer: **Seamus Lee**
32/316 Pacific Highway
LANE COVE NSW 2066

Deputy registered officer: **Christopher Henry Maltby**
55 Edward Street
BONDI BEACH NSW 2026

Party secretary: **Debbie Lorraine Gibson**
19 Jenkins Street
DOUGLAS PARK NSW 2569

Headquarters address: **19A/1 Hordern Place**
CAMPERDOWN NSW 2050

All written objections to the amendments will be considered by the Electoral Commissioner for NSW.

Objections must be signed, include the name and address of the person(s) or organisation(s) making the objection, and be lodged with the Electoral Commissioner for NSW by post (GPO Box 4046, SYDNEY NSW 2001) or email to fdc@elections.nsw.gov.au no later than 14 days after today's date.

The application may be inspected by making a request in writing to fdc@elections.nsw.gov.au

Authorised by John Schmidt, Electoral Commissioner for NSW

For more information contact 1300 022 011.

SB1280

Transport for NSW

Traffic Notice – Road Closures and Special Event Clearways
ISPS HANDA Australian Golf Open – Monday 27 November to Sunday 3 December

Special event clearways will be in effect on the following dates and locations for ISPS HANDA Australian Golf Open.

Rosebery: Clearways will be in effect from 5am to 7pm daily, Thursday 30 November to Sunday 3 December on sections of Bannerman Crescent and Trevilyan Avenue. Some clearways will be in effect until 8pm daily on Bannerman Crescent.

Kensington: Clearways will be in effect from 8am to 8pm daily, Thursday 30 November to Sunday 3 December on Tunstall Avenue (eastern side) between Tedwin Avenue and Day Avenue.

Eastlakes: Clearways will be in effect from 5am to 8pm daily, Thursday 30 November to Friday 1 December on sections of King Street and Vernon Avenue. Local roads will be closed from 5.30am to 5.30pm each day on Thursday 30 November and Friday 1 December including sections of Vernon Avenue, O'Connor Street and King Street.

Clearways are strict no-parking zones for all vehicle types and apply even for local residents or TfNSW Mobility Scheme Permit holders. Check signs carefully as vehicles left in signposted clearways will be towed and a fee applies. If your vehicle is towed call 132 701 to find its new location. **Note:** this information is correct at time of publication but may change at late notice, always check signage for the most up-to-date information.

For more detailed information visit: livetraffic.com

Transport for NSW

Compulsory Acquisition of Land – *Transport Administration Act 1988*

Attention is invited to the notice published in Government Gazette No 520 of Friday, 10 November 2023 reference [n2023-2051] regarding the compulsory acquisition of land for light rail purposes at Parramatta in the City of Parramatta Council area and said to be in the possession of JKN Para Pty Ltd (registered proprietor), Navy Aspiration Opportunity VI Limited, Grand Circle Opportunity IX Limited, Mega Path Opportunity III Limited, Ever Luck Opportunity III Limited, Timely Opportunity III Limited, Flash Point Opportunity III Limited and Avignon Pont Development IX Limited (mortgagees) and City of Parramatta Council and Chief Commissioner of State Revenue (caveators).

(TfNSW Papers: SF2022/187807)

M Knibb
Statutory Land Transactions Manager
Transport for NSW

Contact: For full details call Transport for NSW on **(02) 9983 3419**.

SB1283

Ministry of Health

Private Health Facilities Act 2007

Applications have been received from Sana Private Pty Ltd for transfer of licence for Wesley Hospital Ashfield at 91 Milton Street, Ashfield NSW 2131 and for Wesley Hospital Kogarah at 7 Blake Street, Kogarah NSW 2217.

The Directors are Michael Vincent CARISTO, Georgina Frances BLUNDELL, James Tobias HALL and the Secretary is Benjamin Howard KENNEDY.

Any person wishing to make representations should do so in writing by 6 December 2023.

The Secretary, NSW Health
NSW Ministry of Health
Locked Bag 2030
St Leonards NSW 1590

SB1292

LP1757

Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30599CP

Notice of Intention to use the name Temple for the Divine ☐ ater Bearer
Date of Notice:
22nd November 2023
Notice of Intent to create security interest in the title Temple for the Divine ☐ ater Bearer for use of name and mark. If there is an existing usage of this name please inform us of your objections and provide proof of claim in writing and address it to PO BO☐ 7210, Bondi Beach, NS☐ 2026.

Building Materials and Suppliers

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LP1725

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ConocoPhillips

CMM30607CP



Tenders

School Canteen Licence

Tenders are called for the licence of the St Georges Basin Public School canteen for the school year commencing 2024 for a term of 3 years with an option to renew for 2 years. Annual school enrolments will be approximately 370. General enquiries and requests for a Tender Information Package should be referred to:

Cass Timms
School Administrative Manager
4443 4251 or
stgeorgesb-p.school@det.nsw.edu.au

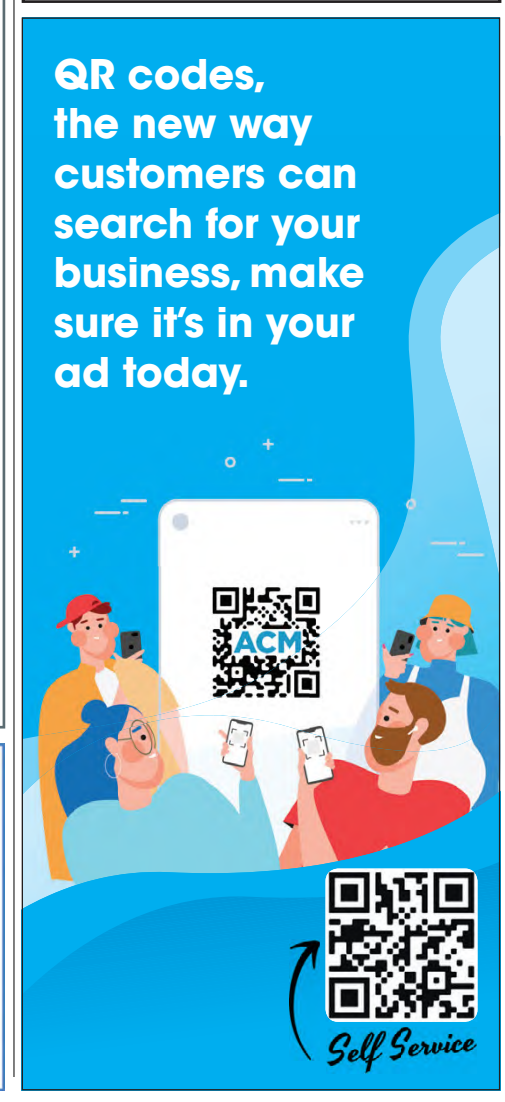
Tenders must be sent electronically and noted in the subject line "Commercial in Confidence - School Canteen Tender" and sent to:

Kathy Rembisz
Principal
stgeorgesb-p.school@det.nsw.edu.au

Tenders close at 3pm on Friday, 1 December 2023.

Mandatory Criteria: All employees must hold a current working with children check.

An onsite inspection will be held on Wednesday 29 November 2023 from 10am-12pm.



Positions Vacant

Capital Chemist
Ulladulla

We are looking for a part time
PHARMACIST
to join our fun and vibrant team.
Our pharmacy has a strong focus on customer service and offering our patients health solutions. Our services include vaccinations, dose administration aids, sleep apnoea and potentially UTI/ contraceptive prescribing.

If you would like to join our team, we would love to hear from you. We are a family friendly pharmacy, and offer flexible hours.

For more information please contact me at:
timrudd@capitalchemist.com.au

AW7368259

TAFE NSW
NSW GOVERNMENT

MANAGER TAFE SERVICES

- **Nowra Campus/ South region**
- **Full-time**

Base salary of **$152,069** p.a plus employer's contribution to superannuation and annual leave loading.

A career that changes lives.

The Manager TAFE Services is responsible for leading and managing a team of TAFE Services Coordinators based in our border campuses. The role involves coordinating campus operations, building community engagement and delivering exceptional customer service to learners which enables a safe, vibrant campus environment.

For more information on how to apply and an informal chat, please call Jonathan Davis (Director of Customer and Stakeholder Relations) on 0437 615 245 or email jonathan.davis19@tafensw.edu.au

You can apply for the role via our TAFE Careers website at **careers.tafensw.edu.au** Ref No 492779

Applications close 11.55 pm Sunday 10 December 2023.

LP1723



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ACM

Is this real? Oh my god, am I going to die?

Emily Jarvis

A man feared he would die after was stabbed at Noarlunga Centre – allegedly at random by a teenager — as he headed home from work on Sunday.

Scott Wimshurst, 25, told 7NEWS on Monday night that it was the scariest moment of his life and that he panicked as he feared he would bleed to death.

He said his body went cold as he felt a warm liquid shoot down his back. Hailing down a bus driver, he then asked paramedics to delay his trip to hospital so he could provide a description of the events.

"Even while it was happening, I was wondering ... is this real?" he said. "Immediately my first thought was 'I've been stabbed – oh my god, am I going to die?'"

He was in a stable condition in the Flinders Medical Centre last night.

Jayden James Spakianos, 18, appeared in the Christies Beach Magistrate Court on Monday charged with aggravated causing serious harm.

"The defendant ... (allegedly) approaches the victim saying 'I will kill this guy', before stabbing him in the back," a prosecutor told the court.

The court also heard Mr Wimshurst was left with a punctured lung and blood in his chest cavity and that Mr Spakianos had allegedly stabbed someone else earlier this year. Mr Spakianos' defence counsel told the court his client denied the allegations. Bailed was refused.

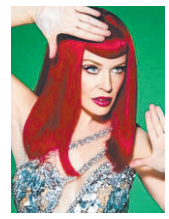


Scott Wimshurst was stabbed at Noarlunga Centre on Sunday. Picture: 7NEWS

'Ageism cost Kylie airplay'

THE feel-good hit of the year, Padam Padam, could have been even bigger if Kylie Minogue hadn't been subjected to sexist ageism by radio gatekeepers, according to the song's producer.

Lostboy, aka Pete Rycroft, who produced and co-wrote the track alongside Norwegian artist and pop hit maker Ina Wroldsen, took aim at British radio stations for not adding the track to their playlists until fans called them out on social media.



Kylie Minogue

"We were trying to get it played on the radio. It was everywhere, everyone was talking about it and it was at least top two in the charts – but Radio 1 and Capital were refusing to play it, essentially because she's an older woman," he told The Independent.

The song gathered swift momentum after its release on May 19 on TikTok because of its earworm hook replicating a heartbeat, and its adoption as an anthem for 2023 Pride celebrations in the US and Europe. The grassroots fan support propelled Minogue to her first UK No.1 in more than a decade.

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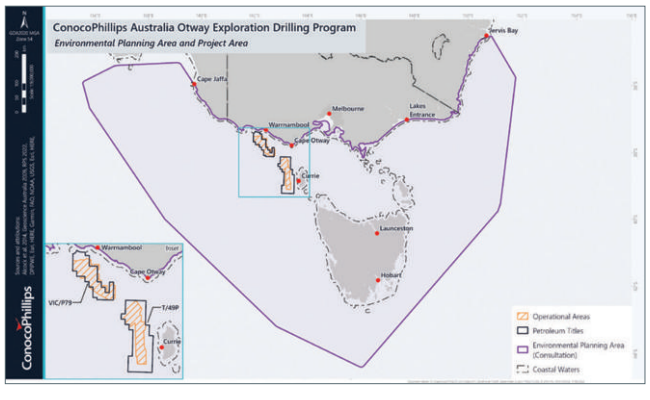
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Bomb threats global probe

SA police say no risk to public safety

Shashi Baltutis

Bomb threats made to schools, healthcare facilities and public places across South Australia have been traced to an overseas site after a joint investigation by SA Police and the Australian Federal Police.

SA Police said in a statement investigations into the wave of terrifying threats from a global "origin" would continue.

"South Australia Police continue to work with our federal and overseas counterparts to investigate these incidents," the statement read.

"We wish to reassure the community that there has been no risk to public safety."

Joel Lisk, research fellow at Flinders University's Jeff Bleich Centre, focusing on digital technology and security, said the threats could be "a mix of interference and nuisance".

"It causes a hassle, it inconveniences people's lives and it exposes a vulnerability," Mr Lisk said.

He explained the incidents reveal to the "sender of the threats" how quickly the target responds. "If you're looking at other activities that are more nefarious (than threats) you'll see how quickly the response is," he said.

"Any information in the right hands can be used for an advantage."

Mr Lisk also said the threats will assist the senders of the threats in determining the "level of preparedness they're targeting".

He said it was "difficult to see the materiality out of it" for the average person.

However, he added the threat's origin could be "ranging from something really organised, to nuisance calls".

"It's hard to speculate the motives," he said. "It could go right down to how the state government reacts to these threats or it could be kids."

Last week, defence personnel at the Keswick Army Barracks were forced to evacuate after a bomb threat. It was reportedly made on August 29.

A defence spokesman confirmed an "incident" had taken place at the facility.

"Defence is aware of an incident at Keswick Barracks resulting in an evacuation," he said.

"Defence is unable to comment further at this time, please direct all inquiries to South Australian Police."

On August 22, bomb threats were made to multiple schools across South Australia as well as Flinders Medical Centre – which was also dealing with a power blackout.

East Adelaide School in St Peters was placed into lockdown because of the threat.

During the incident, principal Vicki Stravinski informed parents that students already at school would be evacuated.

Her statement via email said the Education Department had advised all families to keep their children at home while the matter was ongoing.

"We will notify you as soon as possible about children being able to attend," the letter to parents had read.

"Students who are already at the school for OSHC or sports training will be managed by staff and evacuated off site as per our emergency procedures."

ADVE01Z01MA - V1

Set upon as he tried to stop man from a 'suicide jump'

Brave 'lifesaver' bashed

Rahul Dhakan

A father of five who tried to talk a man out of taking his life was beaten to a pulp by a group of thugs at Mount Gambier's popular Cave Gardens.

Chef Dali Lee suffered severe brain injuries in the frenzied assault, according to partner Danielle Malseed.

Ms Malseed has revealed the motive behind the attack as Mr Lee recovers from a fractured skull and multiple brain bleeds.

Ms Malseed said Mr Lee was near the Globe Hotel in Mt Gambier when he heard screams from the nearby Cave Garden, where someone was threatening to jump. She said Mr Lee, who lost his best friend to suicide last year, approached the "man in an attempt to talk him down".

"Some people then came towards him, screaming at him and then attacked him," Ms Malseed said of the assault last month, which police are probing. Mr Lee said that all he can remember was waking up face down struggling to breathe.

"It's unimaginable that someone could leave him in that condition, he could have died," she said, adding: "He constantly replays the incident in his mind, trying to make sense of what happened."

> "Some people then came towards him, screaming at him
>
> **Danielle Malseed**
> **Loving partner**

The attack has thrown the "family of seven" into turmoil as they try to cope with the housing crisis. The family has been homeless 'on and off' over the past three years.

"After Covid, we lost our rental home and had to live in a caravan parked in my mother's driveway," Ms Malseed said.

"We're living at Dali's mum's now and we don't have our own bedroom.

"He needs to sleep a lot and without a bedroom, that's kind of not possible." In a GoFundMe post, Ms Malseed wrote: "He is undoubtedly the strongest man I know, we remain committed to supporting his recovery, but we can't do it alone."



Dali Lee, a chef from Mount Gambier, was attacked and left in a coma. Picture: Supplied

SA firm's $875k safety bill

Giuseppe Tauriello

Cement and masonry manufacturer Adbri has agreed to spend more than $875,000 on safety improvements following a 2021 incident that left a worker with serious head injuries.

The incident occurred in May 2021 at the company's Klein Point limestone mine on Yorke Peninsula, when the worker fell nearly 4m from a platform onto a concrete floor within the site's crushing plant.

The worker sustained serious injuries including a fractured skull and ribs, broken vertebrae, hearing loss and amnesia.

He has since returned to work and is on restricted hours.

Under an enforceable undertaking approved by SafeWork SA earlier this month, Adbri (previously known as Adelaide Brighton) has committed to spend at least $876,545 on safety improvements including a redesign of the crusher infrastructure at Klein Point and the acquisition of a new specialised rock breaker to assist the injured person's return to work.

The company will also appoint an additional site supervisor at the site, where workers will be provided with additional training on health and safety.

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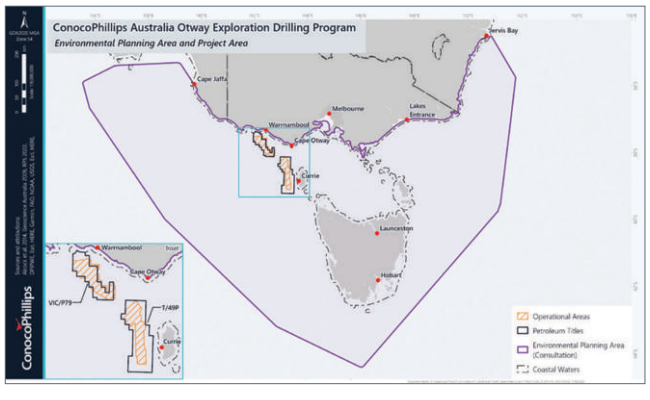
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Kemp real estate

The Corporation of the City of Whyalla

AUCTION

Properties being sold by authority under Section 184 of the Local Government Act 1999 (SA).

Following properties to be auctioned at the Westland Hotel, Palms Venue, 100 McDouall Stuart Avenue, Whyalla Norrie, SA 5608.

Auction Friday 22nd September 2023 commencing at 10am.

Registrations start at 9.30am, bidding from 10am.

45 Phillips Street Whyalla Stuart 5608 CT 6114/766
9 Cowled Street Whyalla Norrie 5608 CT 5221/611
10 Bowers Court Whyalla Barson 5601 CT 6057/894
12 Bowers Court Whyalla Barson 5601 CT 6057/893
31 Bowers Court Whyalla Barson 5601 CT 6057/888
96 Essington Lewis Avenue Whyalla 5600 CT 5647/730
46 Havelberg Street Whyalla Stuart 5608 CT 6024/684
Lot 102 Carlson Street Whyalla Stuart 5608 CT 6024/685
Lot 5 Havelberg Street Whyalla Stuart 5608 CT 6024/680
Lot 6 Havelberg Street Whyalla Stuart 5608 CT 6024/681
Lot 7 Havelberg Street Whyalla Stuart 5608 CT 6024/682
47 McRitchie Crescent Whyalla Stuart 5608 CT 6025/483
3 Foote Place Whyalla Stuart 5608 CT 6025/491
5 Foote Place Whyalla Stuart 5608 CT 6025/493
6 Foote Place Whyalla Stuart 5608 CT 6025/494
10 Foote Place Whyalla Stuart 5608 CT 6025/498
3 Carlson Street Whyalla Stuart 5608 CT 6025/477

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0417 815 564

ADVE01Z01MA - V1

Jim's in ore of iron prices

Commodities bolster Chalmers' budget

Nick Evans

Federal Treasurer Jim Chalmers could be headed for another pleasant budget surprise next year with iron ore prices around $US120 ($186.34) a tonne, well ahead of expectations.

Last week's final budget figures show the tax office raked in $153.16bn in company taxes – $12.4bn more than expected, mostly off the back of stronger commodity prices in iron ore and coal, with a minor contribution from soaring lithium prices.

That helped deliver a $22.1bn cash surplus for the fiscal year, $17.9bn ahead of expectations.

While Dr Chalmers was keen to play down the chances of a repeat performance in the current year, commodity prices suggest the next year's budget will also look a lot better than expected.

Dr Chalmers' May budget tipped iron ore prices to fall to an average $US60 a tonne by March 2023, sold at the port, rather than $US55 a tonne used in the previous budget in October 2021.

But iron ore has sat stubbornly above $US100 a tonne – delivered to China – for most of the financial year so far, lifting above $US120 a tonne last week as Chinese steel mills began restocking ahead of week-long holidays at the end of September, traditionally a strong month for iron ore.

Analysts say markets are also potentially pricing in renewed stimulus measures in China, which could hold back Beijing's threatened move to curb steel output in the second half of the year.

Fitch Ratings' BMI forecasting unit last week tipped iron ore prices to average $US110 in 2023 with "strong risks to the upside", and forecast average prices of $US100 a tonne throughout 2024.

"Despite the mainland Chinese property sector still being in contraction, positive sentiment is stemming from hopes of a turnaround, with some form of stimulus from the mainland Chinese government," Fitch analysts said.

JPMorgan analysts recently upgraded their 2024 expectations to a $US110 a tonne average price, and BHP noted when delivering its annual financial results that marginal iron ore suppliers were leaving the seaborne market when prices fell below $US100 a tonne with "any dips below that threshold unable to persist for any meaningful length of time".

All of that suggests that Treasury's iron ore forecasts are again likely to come in wildly below the actual market price.

Even factoring in freight at $US10 a tonne, delivered to China, most analyst forecasts now suggest iron ore will average around $US90 for the fiscal year – substantially ahead of the budget forecast.

The May budget forecast a $13.9bn deficit in 2023-24.



Henry Ninio in his lord mayoral robes at the Adelaide Town Hall in 1993.

Tributes for former lord mayor

Brad Crouch

Former Adelaide lord mayor Henry Jacques Ninio has died. He was 87.

In a remarkable career spanning perfumery and politics he was elected as the 75th lord mayor of Adelaide in 1993 and served two terms. He was a member of the council from 1983-97.

The loving husband of wife Lynette was a father and grandfather.

Loved ones described him as a "visionary dreamer who gave generously, lived fully and left a lasting impact on all our lives". Tributes included the Hebrew "zikhrono livrakha" — "may his memory be a blessing".

Mr Ninio was born in Cairo and attended Cairo University for two years. He emigrated from Egypt with his family in 1956, completed his degree in pharmacy in 1960 at the University of Adelaide and went on to establish the Piaf Perfumery chain and Simes Australia.

He was a member of Beit Shalom Synagogue and was president in 1983.

The French government has honoured him for his services to perfumery and the French community of Australia.

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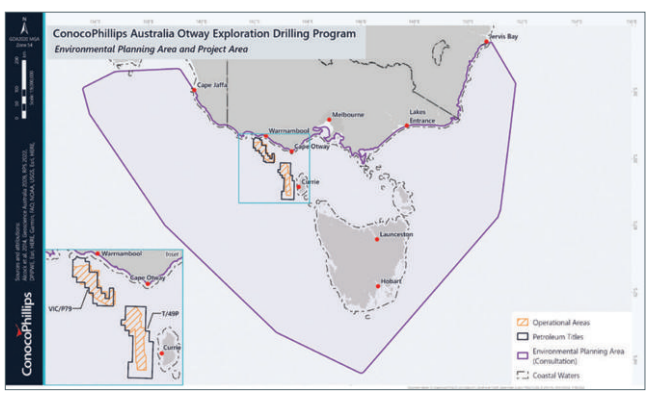
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Federal Court of Australia Count Financial Limited Class Action

The Federal Court of Australia has ordered this notice be published. A class action has been commenced in the Federal Court of Australia by R and N Hunter Pty Ltd (ACN 105 163 522) atf the Hunter Family Super Fund (the **Applicant**) against Count Financial Limited (**Count**). You should read this notice carefully as it may affect your rights.

The Applicant alleges that some of Count's financial advisers breached the law by failing to comply with duties to act in their clients' best interests and failing to give priority to their clients' interests. The Applicant alleges that Count as Licensee is liable for the conduct of its financial advisers and that Count itself breached the law by both failing to take reasonable steps to ensure that its financial advisers complied with those duties and by engaging in misleading or deceptive conduct (or conduct that was likely to mislead or deceive). The Applicant alleges that Count and its financial advisers breached fiduciary duties owed to the Applicant and Group Members. The Applicant also alleges that, for some Group Members, Count's financial advisers entered into ongoing services agreements pursuant to which they promised to provide services on an ongoing fee basis, which they did not provide on some or all occasions. Finally the Applicant alleges that Count incorrectly advised its financial advisers that conflicted remuneration could continue to be paid on arrangements entered into between the financial advisers and their clients where the arrangement was entered into prior to 1 July 2014.

Count denies the allegations and is defending the class action. In summary Count defends the class action including on the basis that:

(a) the receipt and retention of commission payments by Count's financial advisers (including in circumstances expressly permitted by legislation) is not conduct in breach of the law and not contrary to the best interests duty and duty of priority;
(b) Count took reasonable steps to ensure Count financial advisers complied with their legal obligations described above;
(c) Count did not engage in the alleged misleading and deceptive conduct;
(d) the alleged fiduciary duties are not owed by Count, or by each financial adviser, to clients;
(e) there was no breach of the ongoing service arrangement entered into by the Applicant; and
(f) Count did not incorrectly advise its financial advisers in relation to the acceptance of conflicted remuneration.

The Federal Court of Australia has set 1 December 2023 as the date by which group members may choose to opt out of the class action.

You may be a group member if you:

(a) received personal advice from a financial adviser in the Count network;

(b) acquired, renewed and/or continued to hold insurance, financial or platform products; and

(c) paid initial and/or trail commissions in respect of those products between 21 August 2014 until 21 August 2020.

If you believe that you may be a group member then you should read the Notice that the Federal Court has ordered be published. The Notice is a very important document which may affect your legal rights. A copy of the Notice and further information about the class action may be viewed at https://tinyurl.com/CountClassAction or by contacting the Applicant's lawyers, Piper Alderman, on **(02) 9253 9999**.

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Bruce & Brittany to front defo trial

Lauren Ferri

Bruce Lehrmann and Brittany Higgins will both give oral evidence at an upcoming defamation trial, a judge has decided, with the four-week trial to simultaneously address cases against Network Ten and the ABC.

Mr Lehrmann launched defamation action in March against Ten and journalist Lisa Wilkinson over the 2021 coverage of Ms Higgins' rape allegation against him. He later also launched proceedings against the ABC over the live broadcast of a National Press Club address by Ms Higgins.

While he was not named in the Ten report or Ms Higgins' speech, Mr Lehrmann claims he was still identified by the media companies and that there were four defamatory meanings in their publication implying he raped Ms Higgins at Parliament House in March 2019. He has strongly denied all allegations.

The case has been travelling through the Federal Court since Justice Michael Lee granted an extension of time earlier this year. The matter returned to court for a preliminary hearing on Monday, ahead of the trial which has been set down for November 20.

The court heard there had been issues with the preparation of the case in the lead-up to the hearing, as Mr Lehrmann's lawyers had not received an affidavit from Ms Higgins.

But rather than have them provide affidavits to the court, Justice Lee said he wanted to hear Mr Lehrmann and Ms Higgins give evidence "viva voce". This means both parties would be giving their evidence-in-chief orally rather than in written documents to the court.

It will be the first time Mr Lehrmann will give evidence, as he did not take the stand during the criminal trial.

While the defamation trial was originally just going to hear the case between Mr Lehrmann and Ten, Justice Lee on Monday decided he would hear both cases together.

"There's clear battlelines in this case including a public interest defence in the ABC proceedings," he told the court.

"I do think I'll hear both proceedings together."

The court was told the evidence in the trial would also include expert witnesses who gave evidence on "reaction and responses of victims of sexual assault", and a toxicology expert who analysed Ms Higgins and her "level of intoxication".

Justice Lee said he had the intention of determining whether the reports would be admissible ahead of the trial.

In May, Mr Lehrmann dropped a defamation lawsuit against News Corp's News Life Media and journalist Samantha Maiden.

Mr Lehrmann's Supreme Court trial in the ACT last year was aborted due to juror misconduct. He had pleaded not guilty to sexually assaulting Ms Higgins. The charges were subsequently dropped by the ACT DPP, who declined to pursue a retrial over concerns about Ms Higgins' mental health. Mr Lehrmann has continued to deny the allegations.



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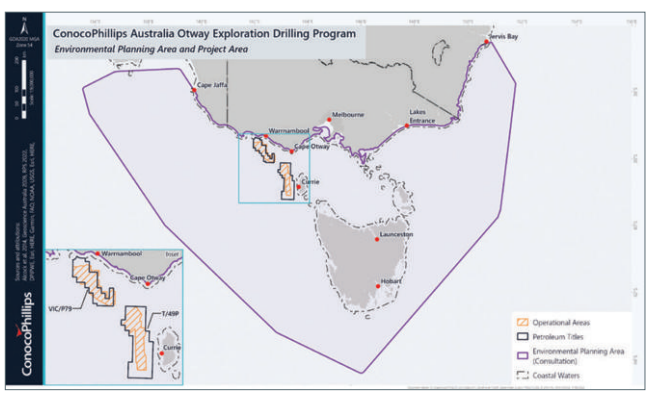
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'Playful' hotel for market project



The $10m Skyline penthouse.

A "playful and fun" brand that "captures the nostalgia of childhood" has been selected to operate the hotel component of the $400m Market Square development.

Treehouse Hotels will open its first Australian location at the Central Market Arcade site following a competitive selection process undertaken by developer ICD Property and joint venture partner the Adelaide City Council.

Market Square is set to become the brand's first location in Australia and will offer 248 rooms across 10 levels in the development's 39-storey tower. It will also feature a restaurant and bar with outdoor seating, a street-front cafe showcasing local produce, more than 500sq m of indoor and outdoor event space and more than 230sq m of fitness and wellness facilities.

'Gamechanger' pill for cancer

Robyn Riley

A new once-a-day cancer pill trialled with Aussie patients is being hailed a "gamechanger" by researchers worldwide.

The pill, called divarasib, works by inhibiting the function of a protein called KRAS, one of the most commonly mutated proteins in cancers, that controls how cancer cells divide and survive.

Peter MacCallum Cancer Centre medical oncologist Professor Jayesh Desai said: "When the protein mutates it is always 'switched on' which means cells, including cancer cells, are more likely to divide uncontrollably leading to the development of tumours."

Prof Desai is the senior author of the global study that included around a dozen Victorians. He helped lead the trial design and the thinking behind how best to use the powerful new drug. The research has shown divarasib is "highly effective" in treating patients with advanced or metastatic cancer linked to the KRAS-G12C mutation.

"This is precision medicine," he said. "We do a test, we find the cancer gene that has a mutation in it and we have confidence now we can give patients a pill and there is a high chance it will help control their cancer; not cure it, but it is a big step."

No strike, but AGL 'too slow on emissions'

COLIN PACKHAM

AGL's board of directors will remain in place after shareholders including billionaire Mike Cannon-Brookes spared the company a second strike on Tuesday, though the company's largest shareholder said the nearly 200-year-old company was decarbonising too slowly.

The vote on the company's remuneration report provides a period of stability for AGL, which was embroiled in a bitter takeover battle in 2022 with Mr Cannon-Brookes and Brookfield.

More than 25 per cent of AGL's shareholders rejected the company's remuneration report in 2022, but its chairwoman Patricia McKenzie on Tuesday said the company had avoided a second strike thanks to the votes of large equity owners.

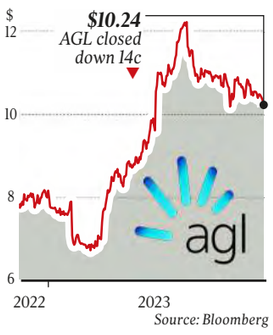
Mr Cannon-Brookes' private investment company, Grok, abstained from the remuneration vote. However, Grok chief executive Jeremy Kwong-Law said the board had set weak climate targets in order to receive bonuses.

"We believe that the targets set under the 'carbon transition metrics' in AGL's 2023 remuneration report incentivise the company to stand still while the rest of the Australian energy market does the work: executives will be rewarded, while AGL, its customers and shareholders, are left behind by inaction," Mr Kwong-Law said in the letter.

"This unambitious attitude reminds us of the 'old AGL' thinking – which was orientated towards watching the transition from the sidelines, instead of leading from the front."

Mr Cannon-Brookes in August described AGL as one of "most toxic companies on the planet".

Grok said AGL secured bonuses for reducing emissions by about 1 per cent a year for the next four years, and driving new renewable generation at about 10 per cent – consistent with the Australian Energy Market Operator's step-change scenario.



Source: Bloomberg

Ms McKenzie said the company was making good progress towards its target of developing 12GW of renewable energy generation and storage by 2035. AGL in 2022 said it would hasten its exit from coal, bowing to pressure from shareholders including Mr Cannon-Brookes.

AGL has said it will close its coal-fired Loy Yang A power station in Victoria in 2035, having previously said it would retire the generator in 2045. AGL says it will shut its Bayswater coal power station between 2030 and 2033.

Earlier this year, AGL said it had entered into a deal with the Victorian government to share the risk of Loy Yang becoming uneconomic before 2035, meaning the coal power station – one of the state's largest emitters – is likely to remain open until the next decade.

Victoria has legislated Australia's most aggressive energy transition policy, aiming to cut emissions by 75-80 per cent by 2035, while bringing forward its net-zero target by five years to 2045.

To achieve this, Victoria will prohibit coal power generation by 2035.

While defending the company's progress, Ms McKenzie said Australia was experiencing difficulties in developing new renewable energy assets.

"We are seeing some challenges, including delays in approvals, cost pressures and some local opposition to new generation and transmission projects," Ms McKenzie said.

Prioritise migrant tradies over students: Brickworks


HOLLIE ADAMS

Brickworks chief executive Lindsay Partridge says more houses must be built

ELI GREENBLAT

The boss of the nation's largest brickmaker and leading housing materials supplier has warned that any review of the country's migration intake needs to prioritise bringing in tradies to work on home construction sites and address Australia's worsening housing crisis.

Brickworks chief executive Lindsay Partridge told The Australian on Tuesday his company was predicting a slowdown in housing construction in 2024 as current projects were completed, but then a building boom into 2025 as a fast-growing population demanded new homes.

In recent days a national debate about migration has begun. Some 600,000 people are expected to settle in Australia this calendar year, and many economists believe this will fuel inflation, lift rents and exacerbate the housing crisis.

In September AMP chief economist Shane Oliver called for annual net migration levels to be more than halved to 200,000 people to allow the country to tackle the acute housing shortage.

Speaking before the Brickworks annual general meeting on Tuesday, where he told shareholders short-term challenges across the industrial property portfolio would see a 10 per cent property valuation decline, Mr Partridge said Australia needed to bring in tradies and skilled workers as a priority.

"There is no use bringing in anybody if they are not a building tradie. You are wasting your time, because where are they going to live?" Mr Partridge said.

"That has been my argument with governments. They need to be focusing on having immigrants that have building trades like we have done in the past so we can build the homes for everybody.

"I understand why the government let the immigration (levels) catch up, and part of that was the students returning, (but) there have been enormous labour shortages ... we need trades, we need skilled people, we don't need tertiary qualified people, we need people who are fitters and turners, electricians, these sorts of people to build these homes."

He said the huge pipeline of federal and state government building works, such as roads, airports and ports, was also pushing up the price of building supplies and making them hard to get.

"It has been made worse by all the public works, shortage of raw materials because the government is sucking it all in for their own projects. You can't get concrete during the day sometimes – you have to get it at night."

In a trading update at the AGM, Mr Partridge said sales at its Australian and US building products business were resilient, while improved margins had resulted in first-quarter earnings exceeding the prior corresponding period. For the first quarter, sales revenue was flat in Australia and slightly higher in North America.

However, he continued to see a decline in new housing approvals, and expected the housing market to slow in Australia in 2024.

"Despite this positive start to the year, order intake is softening and we expect conditions to become more challenging for the remainder of fiscal 2024, as the existing pipeline of work is progressively built out.

"Looking beyond the short-term weakness, Australia appears to be on the cusp of a significant building boom, with record immigration levels exacerbating an already chronic housing undersupply issue."

Mr Partridge said the slowdown in coming months would give Brickworks an opportunity to "sequentially take plants offline to complete maintenance work and manage stock levels", but Bowral operations would continue.

Shares in Brickworks closed 1.9 per cent lower at $25.70.

Big or small, ASIC will pursue them all

Continued from Page 13

"odd" that the regulator's critics attacked it for failing to take action against corporate crime, pointing to the record of hundreds of actions and court judgments.

"I would challenge you to find any other regulator in Australia that runs as many cases as we do, civil and criminal and is as active as we are in court," he said.

ASIC has faced criticism as a Senate economics inquiry led by Liberal Andrew Bragg heard stories of the regulator's failures to act on reports of misconduct.

Senator Bragg, who has slammed ASIC, is preparing to publish a report into the regulator with a number of recommendations to reform the agency.

Mr Longo said he expected to sit down with the economics committee next year to work through the "concerns and issues", but would not be drawn on any proposals to further reform or empower the regulator.

Speaking earlier on Tuesday, ASIC deputy chair Sarah Court said the regulator was "not resourced to investigate all potential breaches of the law".

Ms Court said ASIC made "no apology" for its focus on big business.

"We make careful choices about the matters we take on. We select matters with the broadest possible reach, such that our work will have a deterrent effect well beyond the particular matter we are prosecuting," she said.

"In practice, this means that we inevitably take more civil actions against what might be called the 'big end of town'."

Ms Court said misconduct by large firms "causes the widest consumer and investor detriment".

"And we are bold, in that we are not conservative in the cases we take on. Where we consider there to be harm, or potential harm, we take cases where the outcome is not guaranteed," she said.

On Tuesday Treasurer Jim Chalmers revealed he would soon task ASIC with a number of new priorities under a new statement of expectations for the regulator, the first since 2021.

Former treasurer Josh Frydenberg handed ASIC its last list of tasks, calling on the regulator to support "Australia's economic recovery from the Covid-19 pandemic and work closely with government and Treasury on the implementation of policy reforms and in its exercise of policy-related functions".

> 'We are not conservative in the cases we take on'
>
> **SARAH COURT**
> ASIC DEPUTY CHAIR

But on Tuesday Dr Chalmers said he would ask ASIC to focus on protecting consumers in the "digital sphere", and addressing the risks and capturing the opportunities of the market's transition to net zero.

Former ASIC chair James Shipton, who has previously called for the Albanese government to issue a new statement of expectations, said the new priorities were "urgently needed".

"I encourage oversight bodies like parliamentary committees and ministerial departments to apply a consistent regulatory performance framework benchmarked against the agency's statutory objectives and its statement of expectations," he said.

"A significant fault line in Australia's current regulatory architecture is the absence of meaningful and effective ongoing oversight of critical regulatory agencies, like ASIC."

New Zealand's Financial Markets Authority is given a new statement by the government annually.

Ms Court revealed ASIC's priorities for 2024, warning the regulator would broadly focus on business misconduct, financial services and credit providers, company failures, auditors and liquidators, and technological and operational resilience. Ms Court said ASIC would focus on conduct involving small business.

Sneaker chain Culture Kings now downtrodden

Continued from Page 13

successful opening of the US store.

"As the founder it's my baby, and Tahnee has delivered the Las Vegas store and is beating expectations, but Tahnee and I are entrepreneurial to our core and the public company or holding company role – it's not for me, not my best fit," Mr Beard told The Australian in March.

When the Gold Coast couple sold the business to a.k.a Brands in March 2021 they took half the $600m sale price in a.k.a Brands shares, which later rallied to almost $US15 each, taking their personal wealth to about $700m and ranking the 30-something-year-olds among the wealthiest young individuals in Australia.

However, a sharemarket rout has since seen a.k.a Brands shares sink by more than 90 per cent, cutting the couple's wealth by about $US340m.

Their wealth, based on the 23.3 million a.k.a Brands shares taken as part of the sale deal, has improved recently, with a.k.a Brands shares almost doubling since May.

Meanwhile, Culture Kings is the latest fashion and apparel brand to testify to a downbeat consumer, with Country Road Group and the nation's largest footwear retailer, Accent, also recently revealing sinking sales. Accent's retail brands and shoe distribution partners include Skechers, Platypus, Hype DC, The Athlete's Foot and Vans.

Culture Kings stores, known for their hyperactive in-store entertainment with basketball courts, barbers, DJs and other events, have now succumbed to the retail malaise and are deeply discounting to sell stock – but this has come at a cost to its US owners.

"We are facing continued macro pressure across our brands in Australia and New Zealand," a.k.a Brands interim chief executive Ciaran Long told US analysts.

"Despite the growth in the US, a quarter of profitability was impacted by continued consumer macro headwinds in Australia ... with continued macro pressure in Australia, we are taking aggressive actions to right-size the Culture Kings inventory in the region. We invested about 105 basis points of gross margin with the actions we took to move through inventory at Culture Kings in Australia in the third quarter."

The Beards began their business 20 years ago selling slippers to schoolies on the Gold Coast.

Fortescue suffers first strike

Continued from Page 13

Tuesday its board had "fast tracked" three other projects in Kenya, Brazil and Norway.

But the first will be a 11,000 tonne a year green hydrogen project in Phoenix, Arizona, which will come with a $US550m capital cost and is due to start commercial operations in mid-2026.

Fortescue said it would "initially" fund 100 per cent of the project, as it looked for debt and equity funding for the facility.

In addition, Fortescue will spend $US150m on a hydrogen plant in Gladstone, which will use electrolysers made in Fortescue's nearby manufacturing plant to make up to 8000 tonnes of green hydrogen a year.

Fortescue did not give any details of the expected returns from the projects.

The company's proposed Gibson Island plant, a joint venture with Incitec Pivot, appears to be on the back burner, with the company saying it was still working on front end engineering and design studies but required further work "as Australia struggles to shed its petrostate status and still suffers structurally high green electricity costs".

Dr Forrest told reporters the decision did not mean that the Gibson Island project was dead.

"We've really got the technology down pat, and it's a function of electricity prices. We're still working with the Queensland government closely.

"We're still working with the technology sector to drag those costs down and drag that capex down," he said.

"But we've set ourselves high hurdles as a public company, and we're very disciplined on capital allocation."

Fortescue shares closed up 17c at $25.47 on Tuesday.

Forrest shrugs off US lawsuit

Continued from Page 13

utility Energy Harbor. The lawsuit filed by Kid Shelleen alleges that Fortescue initially tried the switch the deal from its initial conception, in which Fortescue would buy the assets and then allow the US company to buy in, to asking Mr Tudor Jones' company to front the purchase with Fortescue as a silent partner.

"FFI and its representatives were not keen on the optics of FFI, an entity ostensibly seeking to produce green energy, purchasing and running coal energy plants," the documents say.

Despite agreeing to make a $US135m non-binding offer for the power stations, Fortescue then completely reneged on the deal by making a separate offer for the Energy Harbor plans in August 2022, the documents say.

Kid Shelleen then alleges Fortescue reneged on a verbal agreement to reimburse its time and costs for conducting due diligence investigations on the assets, worth about $US6.25m.

Dr Forrest dismissed the legal fight as a "total non-event" on Tuesday, telling reporters on the sidelines it was a "boring" story.

"Someone low down in his chain somewhere has made an accusation against someone who doesn't even work for us anymore," he said.

NOTICES

www.theaustralian.com.au

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30695CP

Toyota Motor Corporation Australia Ltd., is proud to announce the winners of the October Guest Experience Survey Promotion $200 VISA Debit Gift Cards are John & Susan Johnson (QLD), Thair Al Yass (WA), Lauren Dempsey (SA), Lisa Scott-irving (NSW), Michael Kennedy (QLD), Benton Poon (NSW), Marin Panickar (WA), Terrie Walker (NSW), Susan Williams (NSW), Anna Dichera (SA), Erikko Dimitui (WA), Trevor Seeto (NSW), Suresh Gill (NSW), Clare Burcham (QLD), Ahmad Sabbagh (NSW). These winners have been drawn in accordance with Permit Numbers ACT TP 22/02401, SA T22/1981, and NSW TP/02346.

Toyota Finance Australia Limited is proud to announce the winners of the October Customer Experience Survey Promotion $150 VISA Debit Gift Cards are Mitchell Bates (NSW), Wayne Harycki (QLD), Anonymous (VIC), Jeremy Henderson (VIC), Nathan Stokes (QLD), Romeo Estaron (WA), Daniel Burgess (QLD), Joshua Mckenzie Cooke (QLD), Scott Crabtree (QLD), Emma Dolin (WA), Nadia Kaskine (VIC), Robert Thorpe (WA). These winners have been drawn in accordance with Permit Numbers ACT TP 23/00021, SA T23/40 and NSW TP/02392.

Notice is given that an application has been made to the Australian Securities & Investment commission for the discharge of the security lodged by **Advocate Strategic Investments Pty Ltd** A.C.N 107 691 598. Level 3/250 Collins Street, Melbourne Victoria 3000. In relation to the Australian Financial Services Licence 224560. The application has been made because the License has been cancelled by the Company. If you have any claim on that security you are required to lodge particulars in writing to Australian Securities & Investments Commission at P O Box 9827 in your capital city, not later than 3 months after the date of publication of this notice. Failure to lodge your claim before the end of the period specified, may result in the discharge of the security and the release of any surety from his or her obligations in relation to that claim.

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Greens to help usher in family law reforms

EXCLUSIVE

JESS MALCOLM

Labor's push to overhaul the family law system is likely to pass through parliament after the government secured support from the Greens and the crossbench in the upper house.

With the Coalition holding significant concerns and likely to reject the bill, the government has secured crucial support from independent senator Lidia Thorpe, the Jacqui Lambie Network and the Greens.

The legislation removes a provision that directs a court to apply the presumption that it is in the best interests of a child for the parents to have equal shared responsibilities.

Domestic violence advocates have welcomed the proposed changes, saying they are long overdue to stop perpetrators using the family law system and parenting arrangements to prolong conflict and coercive control over shared decision-making. But the bill has been criticised by some legal experts, who warn the amendments may take Australia back to a time when mothers were granted primacy in court battles.

A spokesman for Attorney-General Mark Dreyfus said the reforms would "better assist Australian families in the family law system and ensure the best interests of children are the focus of decision-making, both inside and outside the court".

> '(The reforms will) ensure the best interests of children are the focus of decision-making'
>
> SPOKESMAN FOR ATTORNEY-GENERAL MARK DREYFUS

A major 2019 inquiry by the Australian Law Reform Commission did not recommend removal of the presumption of shared responsibilities but proposed the clause be reworded to allow "joint decision-making about major long-term issues".

Opposition legal affairs spokeswoman Michaelia Cash told The Australian the bill contained major flaws and could have significant unintended consequences on families, including adding costs and delays in separations.

Senator Cash said the opposition would consider amendments over the coming weeks.

"In many cases the changes go much further than was recommended, or have significant unintended consequences," Senator Cash said.

"The committee process has shown many of Labor's changes are poorly thought through, and could add costs and delay for families going through one of the most difficult parts of their lives."

Greens Senate leader Larissa Waters welcomed the reforms but said the party would continue to advocate for more funding for domestic violence services.

"While these reforms are welcome, without more funding to courts and frontline family and domestic violence services, delays, unequal representation and lack of support will continue to put women and children at risk," Senator Waters said.

"If the Attorney-General wants these reforms to work, his government needs to stump up the funding for them to do so."

A spokesman for Senator Thorpe said the bill introduced some "much-needed changes" and had been welcomed by the sector. "Senator Thorpe will be supporting the bill but is proposing amendments to further increase the consideration of the safety of the child as per concerns expressed by women's legal services," he said.

Tasmanian senator Tammy Tyrrell said she was happy with the bill, which put the focus back on what was best for children.

"There's been a couple of reviews that have all recommended these changes," she said.

Act now: residents told to prepare for fire season

EXCLUSIVE

REMY VARGA
NSW REPORTER



Jon Concannon remembers when the horizon turned red as a wall of fire advanced towards his home in Coolagolite in southern NSW on New Year's Eve in 2019, the blaze emitting a deafening roar as it devoured everything in its path.

"The fire was swallowing grass, it was creating its own wind, it was creating its own storm," said Mr Concannon, a former actor who starred on soap opera A Country Practice. "There was nothing you could have done about it and that's why a lot of people just lost their places because they couldn't do anything."

Then the wind changed, the chance arrival of the north-easterly stopping the fire in its tracks as the world turned yellow and a deep silence descended over the valley.

"There was smoke everywhere and you just couldn't see," said Mr Concannon. "All I knew was that it had just gone to this stillness. It was ominous, it was like 'what the hell does this mean?' Because I don't know. No one does."

The forests around bushfire-ravaged communities along the NSW south coast are thick with young black wattle and eucalyptus trees while the grass in paddocks is turning yellow as the weather becomes hotter and drier.

Only about a quarter of hazard reduction planned in the state by the NSW Rural Fire Service was completed last financial year due to severe flooding and prolonged wet weather caused by three consecutive La Nina events over the past two-years.

The Badja Forest fire was ignited by lightning on December 27 in 2019 near the Snowy Mountains town of Cooma before travelling about 70km southeast to the Bega Valley Shire village of Cobargo on New Year's Eve.

The devastating blaze was the deadliest of all the Black Summer bushfires, killing seven people including Wandella dairy farmer Robert Salway and his son Patrick, Richard Steele, Colin Burns, John Smith, Ross Rixon and Michael Clarke.

Fire-resistant agapanthus line the perimeter of retired forester Bruce Leaver's home in Coolagolite and burn marks left from the embers spat out by the Badja Forest fire remain on the awning of his house.

Mr Leaver spent decades working in bushfire suppression and has cleared his own land, as well as clearing leaves from gutters and checking sprinklers will work and keep his property damp if flames again lick his doorstep.

He said the danger this summer would come from grass fires instead of forest and whether an area had been controlled burned did not entirely eliminate the risk of bushfire.

"The area covered by the Cobargo fire had been extensively control burned in the years preceding it," he said.

"In the words of the manager I spoke to about it, it 'made bugger all difference'.

"Now it (control burning) does make a difference. Commonsense tells you if you reduce the fuel you'll have less intensity. But at those scales the intensity is still murderous, and if you think you're safe – you're not."

About 847 houses were lost across the Bega Valley and Eurobodalla shires during the Black Summer bushfires in 2019 and 2020 and there are fears NSW isn't prepared for the coming summer after heavy rains thwarted hazard reduction efforts.

A NSW Rural Fire Service spokesman said fire agencies and land managers had conducted 43 hazard reduction burns and treated 6773 hectares in the Bega Valley and Eurobodalla shires, focusing on areas that didn't burn during the 2019 and 2020 season.

Since 2020, retirees and workers from the cities, mainly Canberra and Sydney, have flooded the south coast along with new age influencers priced out of the hipster mecca of Byron Bay.

Locals who witnessed the savagery of the 2019 and 2020 fires are uneasy about how ill-prepared their new neighbours are for the coming summer and the reality of defending their properties.

A NSW RFS spokesman said it remained the responsibility of landholders to prepare and reduce fuel loads on their properties. "It is every landholder's responsibility to manage the bush fire hazards on their property," he said.

Authorities are not expecting a repeat of the 2019 and 2020 fire season and the risk this summer lies in the build-up of fine fuels, such as grass, instead of trees.

Up the road from Mr Leaver in Coolagolite, Mr Concannon has been preparing his property for the looming fire season, cutting and burning away a tangle of grass and vines.

"It's hard work and there's not people to do it for you," he said.

NSW Emergency Services Minister Jihad Dib said preparing for the fire season was a responsibility shared by all community members and it was important residents in bushfire-prone areas started preparing now.





Jon Concannon has cut back the bushfire fuel at his property in Coolagolite in southern NSW; retired forester Bruce Leaver prepares his nearby property, left; fire surrounds Mr Concannon's home on New Year's Eve in 2019

BEN MARDEN, JON CONCANNON

Key land-clearing report 'out of date'

EXCLUSIVE

TAYLA COUACAUD

Queensland's former chief scientist has warned a key report investigating land clearing rates across the state is "outdated" because Annastacia Palaszczuk's government has sat on its findings almost a year.

A scientific panel, appointed by the Palaszczuk government, has been probing why 680,000ha of forest were cleared in Queensland in 2018-19 – double the previous year's total – despite controversial vegetation management laws.

The panel of 10 experts examined the factors behind continued deforestation in the Great Barrier Reef catchment area and incentives to help avoid future clearing.

Key findings were given to Palaszczuk government in October 2022, and a final report delivered at the start of the year, but it has not been made public.

Former Queensland chief scientist Hugh Possingham, who served in the role until 2022, said the report's findings should be made public as soon as possible.

"We started the report in April last year, we briefed (former environment minister Meaghan) Scanlon in October last year ... so the government was fully informed by October last year," he said.

"We issued the final report in January this year and briefed the new minister about a month ago.

"Every month that passes, the report is more out of date."

Dr Possingham said tree clearing continues to pose a risk to Australia's delicate ecosystem and marine life, with the destruction of habitat the primary cause of extinctions.

"This government has invested a lot of money, state and federal, into trying to reduce land clearing. Stopping land clearing in the reef catchments will not necessarily save the Great Barrier Reef, but it's one thing we can actually do," he said.

"The Great Barrier Reef is double, you're losing out twice, you're destroying habitat for biodiversity, but you're also having an impact on the ecosystem that is hundreds of kilometres away."

The Australian on Monday revealed clearing rates in the reef catchment are continuing at a steady rate. The state's latest monitoring report showed 47 per cent of all the state's clearing happened within the reef catchment area in 2021.

Dr Possingham consulted with 40 other organisations across the agricultural, environment, resources and infrastructure sectors.

> 'We started the report in April last year ... the government was fully informed by October last year'
>
> HUGH POSSINGHAM
> FORMER CHIEF SCIENTIST

Satellite data made available to the panel showed clearing rates have remained flat.

"It has been fairly flat and in the last two years it's gone down a bit, but not a lot," Dr Possingham said. "Those land clearing rates are unacceptably high because of the huge impact they have on biodiversity, the Great Barrier Reef and carbon into the atmosphere. So, increasing greenhouse gas emissions and sediments going right into the Great Barrier Reef."

The expert panel consulted with First Nations, local councils and natural resources management groups to understand the stakeholder perspectives and gain an understanding for solutions to reduce land clearing.

Queensland Conservation Council nature campaigner Natalie Frost backed calls for the panel's report to be released.

A state government spokesman said the report was still being considered and "will be publicly released in due course".

Statue receives stay of execution

EXCLUSIVE

MATTHEW DENHOLM
TASMANIA CORRESPONDENT

The first toppling of a statue of an Australian premier is on hold at least until early next year, with the lodgement of a legal challenge backed by a descendant.

Hobart City Council's planning committee last month voted to approve the council's own development application to remove the statue of William Crowther from Franklin Square.

Crowther, a surgeon noted for his work for the poor but also as a bone-hunter, was accused in 1869 of removing and stealing the skull from the corpse of Aboriginal man William Lanne – a claim he denied.

Former alderman Jeff Briscoe on Monday lodged a planning tribunal appeal, along with heritage expert Chris Merridew and Anne Burleigh, a Crowther descendant by marriage.

"It's an appalling heritage decision, outrageous, really," Mr Briscoe said. "In the 28 years I was on council, we would never have, I believe, accepted that removal on heritage grounds.

"It's very political. So we are going to argue on heritage grounds and we have very good grounds about removing the statue from the plinth and removing it from where it's been for 130 years.

"There's also the fact that it was placed there close to the building where Crowther used to work, and it was funded by donations from ordinary people in Hobart."

Mr Briscoe expected the appeal – supported by a GoFundMe campaign – would call a number of expert witnesses.

While a directions hearing and mediation could occur in the short-term, he understood a full hearing before the planning tribunal would not be possible before next year.

Removal of Crowther's statue, erected in 1889 "by a grateful public, and sincere personal friends", is part of a global push to remove statues of controversial historic figures.

Mrs Burleigh said the Crowther statue was a "fantastic piece of art" and was a rare case of such a memorial being erected by public subscription.

"Dr Crowther's introduction and use of the newly discovered ether and chloroform in operations would have benefited Tasmania as a whole," she said.

"The poor were given free medical consultations and operations – many, many citizens benefited from his ministrations. And now some wish to have his statue removed – a man who was instrumental in shaping the new world.

"Removal of his statue is a despicable wanton act and has affected many citizens, friends, colleagues and beneficiaries, plus relatives who are living now. I know of many who are angered and bewildered."

However, supporters of the statue's downfall, including the Tasmanian Aboriginal Centre, argue there is little doubt that Crowther was involved in the Lanne mutilation and his statue is a constant, painful reminder of the abuses suffered by Indigenous people.

Fugitive nabbed after five years on the run

HARRY BRILL

A man on the run for five years has been arrested at Melbourne Airport.

Omer Tok, 46, was arrested disembarking a flight from Doha, Qatar, on Saturday after allegedly spending time in Turkey, Greece, and Bulgaria.

Police allege he fled Australia using a false passport five years ago while on trial over a plot to import 186kg of cocaine in 2017.

That plot was foiled by Operation Barada and resulted in the arrest of 16 men.

Australian Federal Police detective superintendent Jason McArthur said the 2017 seizure had been significant.

"The seizure of the 186kg of cocaine in 2017 prevented those millions of dollars of drug profit from flowing back into a transactional criminal syndicate to fund other illegal ventures," he said.

"The AFP is also working closely with our law enforcement partners around the world to track down and bring to justice anyone involved in this harmful crime."

Mr Tok was charged with seven offences including attempting to import cocaine, dishonestly obtaining an Australian travel document, failing to appear in court and possession of a tablet press. The remaining charges relate to travel documents.

Victoria Police detective superintendent Dave Cowan said people overseas should consider Mr Tok's arrest a warning.

"We do not forget and we do not give up. Victoria Police will continue to work relentlessly with our partners to ensure anyone involved in this criminality is brought to justice no matter how much time has passed," he said.

Mr Tok faced Melbourne Magistrates Court on Monday and will next appear on November 27.

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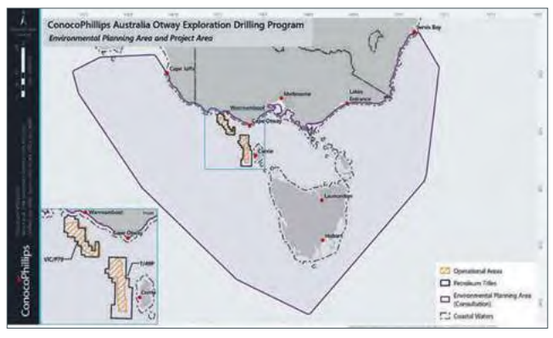
Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com
T: 07 3182 7122

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Fears for future of young diabetes patients

NATASHA ROBINSON
HEALTH EDITOR

New evidence has emerged that the growing incidence of type 2 diabetes in children is a nationwide trend, with paediatric endocrinologists in western Sydney revealing they are also treating children with the disease and speaking of their fears of the devastating complications that lie ahead for their patients.

Doctors in northern Australia this week issued an urgent plea for national intervention to stem the rising tide of type 2 diabetes diagnoses in children and young people, warning patients are suffering heart attacks as young as 25 and some are expected to reach end-stage renal failure by the age of 30.

Doctors at Campbelltown Hospital in western Sydney have revealed they are also treating numerous patients with type 2 diabetes aged under the age of 18, and that paediatric clinics are not funded or resourced adequately.

It is a similar story with adult clinics, with a severe lack of public multidisciplinary services for people living with obesity and diabetes who are unable to access pharmacotherapies and have very limited access to publicly funded bariatric surgery.

The medics have called for a national database to be established to help determine the true proportions of the rising trend of type 2 diabetes.

Lisa Amato, a pediatric endocrinologist at Campbelltown Hospital, told a federal parliamentary committee inquiry into diabetes on Monday that patients under 18 were increasingly being diagnosed with type 2 diabetes in western Sydney.

It comes on the back of evidence presented by clinicians in the Northern Territory and Western Australia of an "exponential trend" of increase in the disease in young people on a scale never been seen before anywhere in the world.

Pediatric endocrinologists in Darwin have reported their list of patients with type 2 diabetes has increased 20-fold in the past five years to over 100 children, with children as young as four being diagnosed.

The increasing prevalence is being driven in particular by high rates of gestational diabetes. Dr Amato said western Sydney was also seeing such a trend.

"We're seeing increasing incidence of diagnoses at a younger age," she told the diabetes inquiry hearing. "We're probably not screening appropriately so there's probably a lot of young people who we are not picking up early.

"Complications of type 2 diabetes on average will occur 15 to 20 years after diagnosis. So we're talking about a 15-year-old who might be needing dialysis when they're in their early 30s."

Western and southwestern Sydney are among diabetes epicentres in NSW, with very high rates of diabetes incidence and complications. Yet there is a severe shortage of multidisciplinary care services for people with obesity, which is one of the major causes of type 2 diabetes.

Endocrinologist Kathryn Williams, the clinical lead and manager for the Nepean Family Metabolic Health Service, one of the only such multidisciplinary public tertiary services, told the hearing that healthcare for people with obesity was essentially a "user pays" system.

Despite many of the clinic's patients being housebound with BMIs of 50 and even as high as 80, or struggling to walk 20m down the corridor at the hospital, only 15 public bariatric procedures a year were available. And access to GLP-1 agonists such as Ozempic was extremely limited even for severely obese patients, despite wealthier populations accessing it fairly readily.

"I have only 14 patients approved for (pharmacotherapy) treatment currently," Dr Williams said. "We're desperately waiting for the medications to be available for our patients on the PBS. This group of patients is sick and have a very low quality of life.

"Increasingly effective therapies for obesity become available on a 'user pays' basis, with the most at risk for obesity and its complications having the least access."

Type 2 diabetes affects 1.5 million Australians and is strongly related to high rates of overweight and obesity. One in three adults in the NT now has type 2 diabetes.

The disease contributes to around one in 10 hospital admissions nationally, and far more in diabetes hotspots.

Hadley loses his voice in Brisbane

JENNA CLARKE

Ray Hadley has been removed from Brisbane's airwaves after eight years, in the latest shakeup of Nine Radio's lineup.

He has been replaced by weekends host Bill McDonald who moved into the coveted role on Monday.

Hadley, now on ratings break, did not mention the change last week.

The Australian's Media Diary foreshadowed the change in May after Hadley signed a fresh $3m deal to stick with Nine until the end of 2026. It was understood at the time that Hadley's Sydney-based show would continue to be syndicated into 4BC until the end of the year.

"Eight years ago Ray added 4BC to his large list of network stations and has made a huge impact in Brisbane and across Queensland. We're delighted Ray will still be heard across the Brisbane airwaves during the Continuous Call Team, State of Origin, NRL Finals and the 2024 Paris Olympic Games," 4BC content director Max Dudley said on Monday.

> 'Eight years ago Ray added 4BC to his large list of network stations and has made a huge impact in Brisbane and across Queensland'
>
> MAX DUDLEY
> 4BC CONTENT DIRECTOR

In the most recent radio ratings last month, Hadley was the top rated show on 4BC – despite the roll out of the new methodology system that he criticised – with more than 7 per cent of the audience and added more listeners. He was also one of the strongest hosts in Brisbane in the new ratings system that captures listeners streaming data.

Monday's sudden lineup change is apart of Nine's push toward a "live and local" approach to content.

"4BC is now the only Brisbane radio station with live and local programming from 5.30am to 7pm, five days a week," a Nine spokeswoman said on Monday.

McDonald has more than 35 years experience in the market and on air across breaking news and sport, winning a Clarion Award for his coverage of the 2008 Gap floods.

He has also called a number of Commonwealth and Olympic Games.

Dudley said McDonald was the ideal candidate for the mornings slot as the station looked toward upcoming local events.

"It's a big year ahead for Brisbane with council and state elections, not to mention the ongoing build towards the 2032 Games, and I have no doubt Bill will champion the issues that matter most to our listeners," he said.

Where there is smoke, there shall no longer be fires









Cool fire burning on Ngurrara Country, left, and on Haasts Bluff land above; Ngurrara ranger Justin Andrews, below right; Ngurrara rangers Regina Thirkall and Sumayah Surprise flank Hannah Cliff from the Indigenous Desert Alliance

EXCLUSIVE

PAUL GARVEY

The world's biggest Indigenous fires program has already helped mitigate major blazes across northern and central Australia, ahead of what is shaping as a particularly severe fire season.

More than 600 Indigenous participants across 25 Aboriginal desert ranger teams have together carried out controlled burns of more than 2.3 million hectares of spinifex grassland over the past 18 months, across an area of more than four times the size of Britain.

The program, co-ordinated by the Indigenous Desert Alliance, is believed to be the biggest of its kind anywhere in the world.

The fires, which have burned during the cooler northern months, aim to develop mosaic burn patterns across remote stretches of desert in a replication of the Indigenous burn patterns used across much of Australia for thousands of years. The smaller fires are designed to deliver biodiversity benefits, reduce the amount of available fuel and create fire breaks for larger, uncontrolled fires that can sweep through during the hotter months.

There are already signs the program is working. A massive 150km-long bushfire raged to the east of Tennant Creek last week in an area that had not been actively managed by any ranger groups, while fires that started around the same time in nearby areas that were part of the fire program did not take hold.

The completion of the program is particularly timely, given the forecast for the upcoming fire season. The spring bushfire outlook recently released by the National Council for Fire and Emergency Services said more than three-quarters of the Northern Territory was at an increased risk of fire.

Boyd Elston, a regional land management co-ordinator at the Central Land Council and co-chair of the Indigenous Desert Alliance, told The Australian that the controlled burns under the latest program were already having a clear impact.

"By looking at the mapping we use to track fires, you can see that these fires have run into the scars that have been created by this project. They are acting as speed bumps to stop the fire from getting out of control and burning through the whole desert," he said.

While many ranger groups have carried out controlled burns in the past, they have largely been restricted to easy-to-access areas. The Indigenous Desert Alliance has used a $3m federal grant to help different ranger groups travel by helicopter and plane to get into deeper country that was otherwise largely inaccessible.

"To get the scale of burning that we've been able to get done has been great," Mr Elston said.

The burn program aims to improve biodiversity by ensuring a mix of old and new vegetation across the deserts.

Many native species thrive where there is a mix of grasses, flowers and seeds from new growth and shelter from old growth, but large-scale uncontrolled fires can ruin that balance.

Gareth Catt, the desert partnerships manager at the Indigenous Desert Alliance, said many native species had disappeared from areas where cultural burning practices had stopped.

"Areas that are consumed by very large fires, the intensity of that can be enough to degrade the seed bank completely and burn through the old growth hollow-bearing trees, which are a really important shelter for wildlife," he said. "It has a very destructive effect broadly across the landscape if fire is allowed to run unchecked.

"By making a choice about putting fire into the landscape and diversifying the landscape, you increase the diversity but also buffer and mitigate against the impact of broadscale wildfire."

Mr Catt said he hoped early signs of the program's benefits would help attract more funding to keep it running. "We're hopeful we can get some grant funding in but at this stage there's no single commitment to continue this program at a broad scale," he said.

"Without that ongoing engagement with the landscape and stewardship of country from Indigenous rangers, we will see the return of some of the largest wildfires in the world across the desert that ... have a huge impact on natural and cultural values."

Accused bushfires developer surfaces again

EXCLUSIVE

REMY VARGA
TAYLA COUACAUD

An unlicensed property entrepreneur who vanished after pocketing the insurance payouts of victims of the Black Summer bushfires is now involved with a company that is attempting to sell critical infrastructure to developing nations.

The Australian can reveal that Atomic 6 founder Andrew Lennox, who owes money in Victoria, NSW and Western Australia, is at Cranium Technology, a start-up that claims to have developed equipment relating to aquaponics and food security, medical facilities, off-grid accommodation, water and wastewater treatments.

"At Cranium, we engage all regions of the brain to bring world-changing holistic outcomes," the company's website claims.

"We do not publicly discuss or promote our products or technology. This in part is due to our Innovation and Intellectual Property (IP); in part as there is a lot of talk in the world and very little action. Less talk, more action is what is required."

Mr Lennox appeared on the NSW south coast in the aftermath of the Black Summer bushfires selling prefabricated bushfire resistant homes in the Bega and Eurobodalla shires to people who had just lost everything in the catastrophic fires of 2019 and 2020.

He then disappeared and charity Anglicare is currently assisting 31 people who collectively claim to have given Atomic 6 $1.65m, some of whom are living in temporary accommodation such as sheds and shipping containers.

Mr Lennox was living in a warehouse in Moruya, near Batemans Bay, around the time he disappeared from the south coast.

Before joining Cranium, he was briefly involved with a cryptocurrency start-up in Perth in WA.

Mr Lennox sold the crypto firm Phaeton Networks, a "Modular Off-grid Data Centre", for $150,000 and arranged for it to be trucked from the Moruya warehouse to Perth. Sources close to the matter said the data centre was glued together and probably worth about $10,000. Phaeton has been unable to reach Mr Lennox.

A Phaeton press release issued on January 9 in 2022 includes a photo of Mr Lennox in front of the data centre, which is tiled with solar panels and has wind turbines fixed to the roof.

"This type of data centre can be deployed in any remote or regional location, ideal for disaster relief and military requirements," the press release reads.

Cranium is selling solar wrapped modular pods that are similar in appearance to the data centre Mr Lennox sold Phaeton and the prefabricated homes he sold Atomic 6 clients.

According to the company's website, the Cranium pods can be used for accommodation, housing, data centres, rapidly deployable command centres, mining camp offices, medical facilities, aquaponics and treating drinking and wastewater.

"Governments have an incredibly hard challenge of providing better living conditions and solutions to their entire nation," the website reads.

"The cities are easy, as they already have the required infrastructure; however, outside the city is a major resource issue.

"Cranium have the solutions for these governmental challenges. At Cranium, we engage all regions of the brain to bring world-changing holistic outcomes."

Cranium has addresses in the Philippines, Papua New Guinea, Singapore and Brisbane.

At the Brisbane address is an Australia Post office and a security guard told The Australian the suite number listed on Cranium's website did not exist.

The Australian did not see any signage relating to Cranium or any sign the company has an office in the building.

Atomic 6 went into liquidation last July over a $36,000 unpaid debt to engineering firm Stantec for work performed on the houses for the Black Saturday bushfire victims.

Two female students stabbed in random attack on campus

JOANNA PANAGOPOULOS

Two students have been stabbed at the Australian National University campus in what appears to have been a random attack.

ACT Policing and ACT Ambulance Service were called to the ANU following reports of a stabbing about 2.45pm on Monday.

Two 20-year-old female students were taken to hospital with stab wounds. One is in a critical condition and one is in a stable condition.

A 34 year-old man was assaulted and suffered minor injuries.

A 24-year-old man, who is not believed to be a student at the university, was reportedly tasered on scene and taken into police custody. He has not yet been charged.

"No specific motive for the incident has been identified," ACT Police said in a statement on Monday afternoon.

The incident is believed to have occurred on Fellows Oval on the Acton campus.

ANU students recently returned from mid-semester break and the oval was relatively busy at the time, The Australian understands.

ANU vice-chancellor Brian Schmidt notified the ANU community of the incident in an email.

"Let me start by assuring everyone the situation is under control. One person is now in custody in connection with this incident," Professor Schmidt wrote.

"Three people were injured and taken to hospital and our thoughts are with their friends and families.

"I would like to express my sincere gratitude for the swift and efficient response from ACT Policing, ACT Ambulance Service and our own ANU security team.

"I understand this incident may have caused distress among members of our community and I want to remind you that support is available. In times like these, it is essential we support one another and stay connected as a community."

Students were being asked to avoid the area on Monday night.

ConocoPhillips

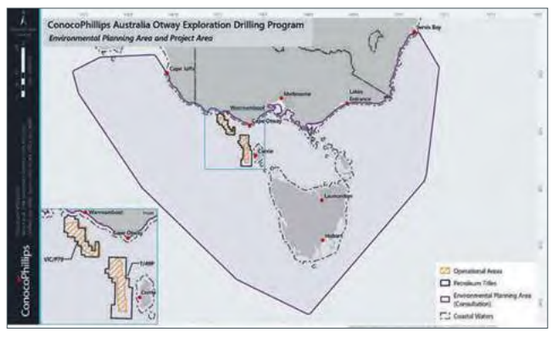
Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

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We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

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Labor 'silent' on E Timor pact





AFP, GETTY IMAGES

East Timor's team at the Asian Games in Hangzhou, where Xanana Gusmao and Xi Jinping, top left, signed the pact

AMANDA HODGE
SOUTHEAST ASIA CORRESPONDENT

The federal opposition has demanded the Albanese government reveal when it first knew China and East Timor were elevating their diplomatic ties to a comprehensive strategic partnership and what the security implications could be for Australia.

Opposition foreign affairs spokesman Simon Birmingham said the weekend agreement between Dili and Beijing in China's eastern city of Huangzhou was a potent "reminder of the intense strategic competition" for influence in the region.

"It is notable that the Albanese government has been silent about the implications of this agreement, in contrast to their pre-election posturing on similar matters," Senator Birmingham told The Australian, referring to Labor's criticism of the former Morrison government after Solomon Islands signed its 2022 security pact with Beijing. The then Labor opposition claimed the government had "dropped the ball" on the Pacific and has since accused it of diminishing Australia's influence in the region.

Senator Birmingham said it should be a national priority to ensure Australia was "as close a partner as any other nation is to Timor Leste", referring to East Timor by its Portuguese-language name.

Yet while Australia had comprehensive strategic partnerships with both Indonesia and Papua New Guinea, it did not have one with East Timor.

"The Albanese government should be transparent about when they became aware of this agreement being negotiated and signed, whether they've had any briefings on it and what the implications are for Australia," he said.

Questions put by The Australian to Foreign Minister Penny Wong on Monday were referred to the Department of Foreign Affairs and Trade, which said in a statement the government was "aware that East Timor and China have announced an agreement to establish a comprehensive strategic partnership".

"This is a matter for East Timor and China. Australia respects East Timor's sovereignty and ability to make its own choices," it said.

In fact, Dili's decision to elevate ties with Beijing is very much an issue for Australia also given East Timor's geographic proximity, and broader concerns over China's push to build influence in the Pacific. The CSP commits the two countries to closer military engagement, and Beijing to greater investment in Timor's infrastructure, healthcare, food security and fishing grounds, which border Australia. That will inevitably lead to a far greater Chinese presence in East Timor – 680km from Darwin.

China's move to strengthen ties with East Timor also comes amid rising anxiety within the impoverished country of 1.4 million people over a looming "fiscal cliff" as the government spends down the petroleum wealth fund, leaving it desperate for investors to help it push its Greater Sunrise oil and gas fields into production.

East Timor President Jose Ramos Horta sought to assuage concerns over its elevated partnership with China on Sunday, telling Turkish television TRT: "We are not aligned with China."

"We have a very good relationship with China, as we have a great relationship with Japan, South Korea, with the US, Australia, New Zealand and with all the European countries," he said.

But, he added, it was a "bit silly" of Western nations to look upon China as an enemy.

A joint statement issued by China's Xi Jinping and Timor's Xanana Gusmao at the weekend declared Dili's "firm adherence to the one-China principle", its acknowledgment that Taiwan was an "an inalienable part of the Chinese territory", and its opposition to "any form of Taiwan independence".

Mr Ramos Horta told TRT that while "Taiwan is part of China", a Chinese invasion of Taiwan "would be extraordinarily detrimental for peace" and a "totally unthinkable scenario".

Asked if East Timor would cut ties with Beijing if it were to invade Taiwan, however, he said: "No."

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Australia blindsided by Dili's ties with Beijing



AMANDA HODGE
COMMENT

Australia looks to have been blindsided by East Timor's move to upgrade ties with China at the weekend, leaving Canberra with a new and urgent problem on its doorstep.

How much the Albanese government knew about Dili's decision to elevate its relationship with Beijing to a comprehensive strategic partnership before the announcement was made in China on Saturday is unclear.

Foreign Minister Penny Wong, who was in New York over the weekend for the UN General Assembly, has not yet commented on the agreement, which includes a commitment to enhance "high-level military engagement" between the two countries.

But the fact her 15-month frenzy of Pacific engagement may not have entitled her to a courtesy call from our closest geographic neighbour before the announcement should be cause for concern.

Last year, Wong accused the former Morrison government of having "dropped the ball" in the Pacific over the Solomon Islands decision to sign a security agreement with China. But it was under her watch in July that the two nations signed their own CSP and law enforcement pact allowing a greater Chinese police presence in the country, one that could potentially see Beijing replace Australia as the Solomons' provider of choice for police training and backup.

Prime Minister Manesseh Sogavare's decision to skip US President Joe Biden's second annual summit for Pacific Island Forum nations at the White House on Monday suggests his controversial pivot to China is complete.

Vanuatu also declined, though for domestic reasons. Sato Kilman faced a no-confidence vote in parliament on Monday.

> Like its neighbours in ASEAN, East Timor insists it wants to be friends with everyone

Biden expressed disappointment at the Solomons snub after Sogavare used his weekend speech to the UN general assembly in New York to praise China's development co-operation as "less restrictive, more responsive and aligned to our national needs".

But Beijing's triumphant unveiling of closer ties with Dili less than a day later raises a potentially thornier problem given East Timor's geographic proximity to Australia. Australia is still Timor's largest international donor, and a trusted provider of services there.

But Canberra does not have a comprehensive strategic partnership with Dili, even as it has been busy elevating ties with key Southeast Asian partners.

Does it matter?

That remains to be seen. It depends on how much a more risk-averse China is willing to invest in East Timor's infrastructure ambitions, and what level of economic and diplomatic dependency that leads to for Dili.

Beijing is determined to build a global south alliance that will fall in behind its leadership and vision of a new multilateralism not dominated by the wealthy West, and presumably less troubled by considerations of human rights and democracy.

That includes the Pacific Islands which Australia, the US and New Zealand have for decades seen as their sphere of influence.

The US-led Indo-Pacific partnership, with Australia, Japan, the UK and others, is equally determined to counter Beijing's growing influence – though minus the considerable carrot of China's Belt and Road Initiative.

Like its neighbours in ASEAN – a regional bloc of which it is soon to become a member – East Timor insists it wants to be friends with everyone.

But it is running out of time to find an investor willing to help it develop its last great fossil fuel resource – the Greater Sunrise oil and gas fields in the Timor Sea – before its Petroleum Wealth Fund is exhausted and it has no way to finance its modest annual budget.

Negotiations with its private partners, Australia's Woodside and Japan's Osaka Gas, have gone nowhere for decades as Dili has struggled to convince them of the feasibility of its ambitions to pipe the liquid natural gas from the Timor Gap and process it onshore.

Can anyone really blame Dili for seeing China – with its BRI infrastructure money – as a possible alternative?

Albanese government critics will no doubt criticise Wong's weekend UNGA attendance as yet another international junket.

That would be a cheap shot.

Australia must be seen to be supporting Pacific Island nations – in particular their climate concerns – in that forum, and to be putting money where its mouth is if it wants to be seen as their partner of choice.

Successive federal governments must share the blame for dropping the ball on East Timor, and the Pacific more broadly.

Dili may have forgiven Canberra for the treaty with Jakarta that divided the oil and gas spoils of the Timor Sea between the two nations; for opting out of a UN maritime boundary jurisdiction tribunal before East Timor gained independence; and for bugging its ministerial offices to gain advantage in negotiations over resources in the Timor Sea.

But it most certainly has not forgotten.

Hollywood writers in deal to end strike

GEORDIE GRAY
ENTERTAINMENT REPORTER

After a 146-day strike that effectively shut down Hollywood, a "tentative" deal has been reached between striking screenwriters and major entertainment studios.

The Writers Guild of America announced on Monday that after five consecutive days of negotiations it had reached a deal on a new, three-year contract with entertainment companies.

"We can say, with great pride, that this deal is exceptional – with meaningful gains and protections for writers in every sector of the membership," the WGA's negotiating committee said in an email to members on Monday.

The strike will still be in effect until the contract is ratified. In coming days, guild members will vote on whether to accept the deal, which includes much of what they had demanded from studios, including increased royalty payments for streaming content and guarantees the use of generative AI in content production will not impinge on writers' compensation.

"To be clear, no one is to return to work until specifically authorised to by the guild. We are still on strike until then," the message to members stated.

Writers union leaders told members all picketing would now be suspended.

Around 11,500 members of the writers guild walked off the job on May 2, over issues of pay, minimum staffing in writers' rooms for television and concerns over the use of artificial intelligence in the creation of scripts.

The proposed deal comes after talks resumed last Wednesday for the first time in months.

Top Hollywood executives, including Bob Iger of Disney, Donna Langley of Universal Pictures, David Zaslav of Warner Bros Discovery and Ted Sarandos of Netflix, were reportedly involved, joining the Alliance of Motion Picture and Television Producers, which negotiates on behalf of entertainment companies.

Details of the contract agreement will not be released "until the last 'i' is dotted", the WGA said. The writers have been on strike for 146 days. The longest writers' strike was 153 days in 1988.

This does not signal a full return for Hollwood. SAG-AFTRA, the union representing more than 150,000 actors, who joined writers on picket lines on July 14, is striking separately. It marked the first time the writers and actors guilds had been on strike together since 1960.

There are no talks scheduled between the actors union and the studios. As it stands, the only shows that could resume production are those without actors, such as talk shows.

In a statement, SAG-AFTRA wrote that it "congratulates the WGA on reaching a tentative agreement with the AMPTP after 146 days of incredible strength, resiliency and solidarity on the picket lines. While we look forward to reviewing the WGA and AMPTP's tentative agreement, we remain committed to achieving the necessary terms for our members".

Several multimillion-dollar film and TV productions in Australia were adversely impacted by the strikes. Apple TV+'s Metropolis, a reimagining of the 1927 Fritz Lang film, and one of the largest productions ever planned for Australia at $188m, was cancelled in June.

Other casualties included Universal's Apples Never Fall, a series adaptation of Liane Moriarty's novel starring Annette Bening and Sam Neill. It stopped filming in July, when the actors' strike commenced. Production on martial arts film Mortal Kombat 2, on the Gold Coast, was also delayed.

Cancer gets killer Sicilian mafia boss in the end



Messina Denaro

ROME: Sicilian mafia boss Matteo Messina Denaro, captured in January after three decades on the run, has died in hospital in central Italy.

The 61-year-old had colon cancer, for which he had sought treatment while on the run – a decision that brought him to the attention of the authorities, who arrested him at a clinic in Palermo.

Messina Denaro was one of the most ruthless bosses in Cosa Nostra, the real-life Sicilian crime syndicate depicted in the Godfather movies. He was convicted by the courts of involvement in the murder of anti-Mafia judge Giovanni Falcone in 1992 and in deadly bombings in Rome, Florence and Milan in 1993.

One of his six life sentences was also handed down for the kidnapping and subsequent murder of the 12-year-old son of a witness in the Falcone case.

Messina Denaro disappeared in the summer of 1993, and spent the next 30 years on the run as the Italian state cracked down on the Sicilian mob. But he remained the top name on Italy's most-wanted list and, increasingly became a figure of legend.

In a stunning swoop, he was arrested on January 16 as he visited a health clinic where he was being treated using a fake identity. He was detained in a high-security jail in L'Aquila, central Italy, where he continued treatment for his cancer in his cell.

In August, Messina Denaro was moved to the inmates' ward of the local hospital, where his condition had declined in recent days. At the weekend, media reports said he was in an "irreversible coma". Medics had stopped feeding him and he had asked not to be resuscitated, they added.

His arrest may have brought some relief for his victims, but the mob boss always maintained his silence. In interviews in custody since being arrested, Messina Denaro even denied he was a member of the Cosa Nostra.

After Messina Denaro went on the run, there was intense speculation that he had gone abroad – and he likely did. But in the end, he was found to have been staying near his hometown of Castelvetrano in western Sicily.

Investigators had been combing the Sicilian countryside for Messina Denaro for years, searching for hideouts and wiretapping members of his family and his friends. They were heard discussing the medical problems of an unnamed person who suffered from cancer, as well as eye problems – a person who detectives became sure was Messina Denaro. They used a national health system database to search for male patients of the right age and medical history, and eventually closed in.

AFP

ConocoPhillips

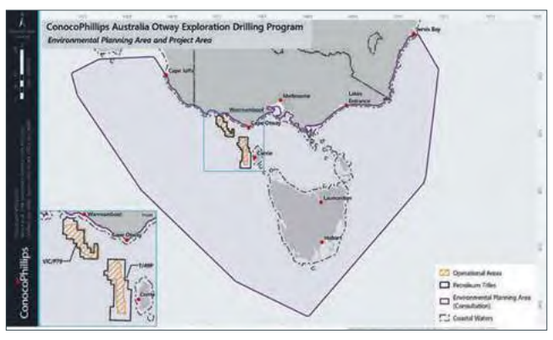
Relevant Person Consultation:

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Aussie MPs meet Taiwan leaders

WILL GLASGOW
NORTH ASIA CORRESPONDENT



AFP

Taiwanese special forces demonstrate their skills at an open day in Hsinchu last week

A bipartisan group of Australian politicians has arrived in Taipei for meetings with Taiwanese President Tsai Ing-wen and her top officials amid warnings from Taiwan's Defence Minister that China's ongoing military drills risked "getting out of hand".

Labor MP Josh Wilson, a member of the parliamentary joint committee on intelligence and security, and Coalition frontbencher Paul Fletcher are leading the eight-member Australian delegation, which began its four-day trip on Monday.

"This visit of cross-party heavyweight parliamentarians to Taiwan shows their support," said a spokesman for Taiwan's Ministry of Foreign Affairs.

The Taiwan trip – only the second by a group of sitting Australian politicians since 2019 – comes after Taipei expressed concern over the weekend about the People's Liberation Army's activities. Defence Minister Chiu Kuo-cheng warned the PLA's manoeuvring risked "getting out of hand".

Taipei and its security partners are closely monitoring a round of Chinese military exercises at a bay area in coastal Fujian Province. They follow the swarming by unprecedented numbers of PLA air force fighters, drones and bombers in recent weeks, and the operation of PLA navy warships and Chinese aircraft carrier Shandong in waters around Taiwan.

The eight Australian politicians are expected to meet Ms Tsai on Tuesday, followed by briefings with her top security and economic officials, and Foreign Minister Joseph Wu.

Opposition assistant foreign affairs spokeswoman Claire Chandler said it was "an honour to be in Taipei" as part of the cross-party parliamentary delegation. "Many Australian parliamentary delegations have visited Taiwan over the years, and it's important to see these delegations continue with the easing of travel restrictions following the pandemic," Senator Chandler told The Australian.

"As an incredibly important trading partner in our region, it's only appropriate that parliamentarians continue to regularly engage with Taiwan."

Before taking over as Labor leader, Anthony Albanese led one of the last Australian delegations before Covid.

This group includes Labor MPs Graham Perrett, David Smith and David Mulino, Labor senator Catryna Bilyk and Liberal senator Matt O'Sullivan. Their visit comes as Canberra tries to firm up its relations with allies and partners in the region, while continuing to "stabilise" relations with Beijing ahead of a trip to China by Mr Albanese.

Foreign Minister Penny Wong over the weekend met with her counterparts in the Quad, who reiterated their "strong opposition to any unilateral actions that seek to change the status quo by force or coercion" in the South and East China Seas, areas in which Beijing has made assertive claims.

Trade Minister Don Farrell struck a more positive tone on Monday, welcoming the return of Chinese group tours. Chinese visitor arrivals to Australia have surpassed 50 per cent of pre-pandemic levels and are expected to boom over the coming "Golden Week" holiday.

Libya orders arrests over flood

TRIPOLI: Libya's prosecutor general on Monday ordered the arrest of eight officials as part of his inquiry into a flood disaster which killed thousands, his office said.

The officials are suspected of "bad management" and negligence, a statement from the prosecutor general's office said, adding that the officials served currently or previously in offices responsible for water resources and dam management.

A total of 3845 people are now confirmed to have died in the flood that devastated the port city of Derna on the night of September 10-11. Mohamed Eljarh, a spokesman for the relief committee set up by the authorities in eastern Libya, said the figure included only those whose burial had been recorded by the health ministry, so it is "expected to rise every day unfortunately". Bodies buried by residents in the first few days after the disaster struck had not been included, he said.

Officials were working with the community to compile a list of unrecorded burials as well as a register of the missing, who international aid organisations say may number 10,000 or more.

Many of the dead are believed to have been swept out to sea, from where their bodies are still washing ashore. Others are thought to be buried beneath the debris that carpets whole neighbourhoods of Derna.

AFP

EXPERTS WARN OF POLICY RORTS

Students 'to exploit aged care reforms'

EXCLUSIVE

JESS MALCOLM

Leading education and migration experts have warned Labor's union-linked reforms designed to bring in foreign aged-care workers will be exploited by international students seeking a fast track to permanent residency.

Under the policy, which was first announced in May, people are able to gain access to full work rights after completing a short course in aged care.

The change in the visa system was introduced in a bid to plug critical workforce shortages in the sector, as Labor seeks to implement several sweeping reforms, including mandated care minutes in residential centres.

Immigration expert Abul Rizvi warned the government's policy would be rorted by international students opting to switch out of longer courses at universities in favour of shorter, aged-care vocational paths in order to gain citizenship.

He said the policy risked attracting "shonky" educational providers who would be incentivised to offer aged-care training programs amid a predicted surge in demand.

"If I was a student and struggling to find a pathway to permanent residency, the very best pathway is to do a certificate three in aged care ... you might be doing a course in business which is hard to get permanent residency and then switch to aged care which is cheaper, easier and faster," said the former deputy secretary of the Department of Immigration.

"The government needs to manage two risks, including the entry of providers in this space who are interested in the money and not interested in delivering quality aged care courses."

International Education Association of Australia chief executive Phil Honeywood warned the policy was at risk of being rorted by "unscrupulous" migration agents seeking to profit from vulnerable students desperate for Australian citizenship and work rights.

Mr Honeywood was concerned that the labour agreement would incentivise the wrong type of student to work in aged care.

"Currently, the government is focused on only allowing quality students to enter the country over quantity. Ironically, this sudden aged-care policy could induce the wrong type of student to pragmatically enter into an industry which requires a genuine caring aptitude," he said.

Opposition immigration spokesman Dan Tehan said the government's attempt to deliver on its election promise has led to "perverse outcomes".

He warned "Labor's shortcut to permanent residency will attract people to aged care with no passion for the profession while also undercutting our international sector".

"Labor's desperate attempt to plug the gaping hole in their undelivered election promise to provide round-the-clock aged-care nurses is going to deliver perverse outcomes," Mr Tehan said.

"This is not a long-term solution. There are no guarantees migrants will continue working in aged once they have gained permanent residency and there are question marks about the quality of some courses."

A spokesman for Immigration Minister Andrew Giles said Labor's policy would address critical workforce shortages in aged care while also protecting workers.

"The Aged Care Labour Agreement settings have been designed to strike a balance between the workforce opportunities migration can facilitate to build a while recognising the vulnerabilities faced by workers on temporary sponsored visas," he said.

"The Liberals had almost a decade to address workforce in aged care and did nothing. We're working together with businesses and unions to address workforce shortages while protecting temporary migrant workers from exploitation."

Under the agreement, unions have special access to workers including through inductions that exclude management. The deal also forces providers to ensure workers have time off to attend union meetings.

Premier's allies want leader with energy

Continued from Page 1



SCOTT POWICK/NCA NEWSWIRE

Labor frontbenchers and future leadership frontrunners Steven Miles and Shannon Fentiman on Monday

roll a leader. Ms Palaszczuk, Australia's longest-serving premier behind Victoria's Daniel Andrews, would have to decide to leave or be convinced to go.

Another member of the Right said Ms Palaszczuk could be stubborn and was becoming less inclined to listen to advice. "If she doesn't want to go, she won't go," the Right member said.

A strong contingent of MPs still support Ms Palaszczuk, believing her personal brand can get Labor over the line while others fear a change in leader will give support to the LNP's claims of instability and crisis within the government. Once a prevailing force, Labor's Right faction has been in rapid decline in recent years, thwarting hopes Treasurer Cameron Dick will ever become premier.

In the dominant Left faction – which controls the numbers in cabinet and caucus – Mr Miles and Ms Fentiman would be frontrunners in any leadership ballot to succeed Ms Palaszczuk.

Former Labor minister Robert Schwarten warned that if "gutless" MPs kept undermining Ms Palaszczuk, the government would lose the next election. "These things develop a life of their own ... (and) become a self-fulfilling prophecy," he said.

"If I was the Premier reading those gutless people, I wouldn't take them seriously until they had the guts to say it to my face. And you have to question the motivation of those people if they are not prepared to do that."

The pair served in the Bligh government's cabinet together. Mr Schwarten said Ms Palaszczuk had been written off too often during her political career.

"She's pulled it out of the fire on many occasions," he said. "I don't ever underestimate her capacity to fight, and neither should anyone else."

A Labor backbencher acknowledged there was leadership chatter but said there were "always rumblings" sometimes "more intense than others".

One source said it was unlikely the Premier would want to quit before May next year, because she was desperate to surpass Peter Beattie's record as the longest-serving post-war Labor Premier in Queensland.

Ex-Nats MP guilty of child sex abuse

JENNA CLARKE

A West Australian MP has been found guilty of sexually abusing a young girl and has automatically been disqualified from parliament.

A jury of six women and six men found James Hayward, 53, guilty of two counts of indecent dealing charges. He was acquitted of two other charges including the allegation he showed the child how to search for pornography online.

Hayward did not apply for bail and was remanded in custody until his sentencing hearing in October.

Hayward was an independent member of WA's upper house after he was suspended from and then quit the Nationals WA in the wake of charges relating to indecently assaulting the girl between 2019 and 2021, when she was aged between six and eight. He had pleaded not guilty.

After more than four hours of deliberations the jury handed down their verdicts as Hayward stood silently and members of his family, including his wife, sobbed.

The court was told Hayward made the girl indecently touch him on three occasions and also instructed her on how to find explicit and sexually graphic material on the internet.

State prosecutor Sean Stocks told the court Hayward had admitted what he did in a letter emailed to his wife, which became a crucial piece of evidence.

He denied what he wrote was a confession and the District Court was told it was a "misguided" and "irrational" decision to protect "his family from the financial mess" he was in at the time, as his business had outstanding debts of more than $400,000.

Mr Stocks told the court that after the child's parents went to the police and Hayward learned the allegations were going to be made against him, he wrote to his wife saying he was going to end his life.

He sent the email about a week later but added the words "which I have done" in reference to the allegations with a sad face emoji.

Opposition Leader Shane Love, leader of the Nationals WA, said the process to find a replacement for Hayward would begin shortly.

"Abuse in any form is unequivocally unacceptable," Mr Love said. "It is expected James Hayward will be now disqualified from his position as a member of the Legislative Council representing the South West. A process will then commence to determine his replacement."

Tatiana Dokhotaru

Death doesn't get much worse, say police

MADELEINE ACHENZA
STEVE ZEMEK

The estranged partner of a woman who was found dead in her Sydney unit has been charged with her murder.

Detective Superintendent Danny Doherty said the alleged murder of Tatiana Dokhotaru, 34, at her Liverpool apartment in May was "domestic violence-related" and the homicide squad had taken over the case due to the "gravity and severity" of the crime.

Police will allege that Danny Zayat, 28, of Colyton, assaulted Dokhotaru to the point of her death, which occured after a triple-0 call was made on May 26, the night before her body was found.

"It doesn't get much worse in relation to a woman being killed in her own unit," Superintendent Doherty said.

Mr Zayat appeared in Penrith Local Court on Monday, still wearing the same high-vis hoodie in which he was arrested earlier in the morning. Bail was refused and he is expected to appear in Campbelltown Local Court on September 27.

He had been previously charged with 22 domestic violence offences relating to Dokhotaru, including choking without consent, breaching an AVO, assault occasioning bodily harm, common assault and destroying or damaging property.

Detectives recently returned from Canada where they interviewed the victim's family and friends.

Last week, Superintendent Doherty said police were still searching for Dokhotaru's phone in the hope it might possess fresh clues.

NCA NEWSWIRE

Cleric attacks tactics to decriminalise drugs

SARAH ISON

A former senior member of the Catholic Archdiocese of Canberra and Goulburn has criticised the ACT government for the way it passed legislation decriminalising some drugs, calling its tactics "appalling" and raising alarm over whether the same "lack of due process" will be applied to its looming voluntary assisted dying laws.

Former vicar general Tony Percy – who has gone toe to toe with the ACT government in recent months over its forced acquisition of the Calvary Hospital – said he was becoming increasingly concerned over the "total lack of transparency" in how major reforms progressed.

"This just feeds into the Calvary incident where there is a lack of due process and governance, no question at all," he said.

"And then there's the questions about risk aversion, which absolutely should be asked. What's this going to do to the health system and to people?"

ACT Health Minister Rachel Stephen-Smith earlier this month revealed her government took the commitment to decriminalise drugs "quietly" to the 2020 election and purposefully chose to introduce the reforms through a private member's bill rather than government legislation. "If the government had tried to do it, I tell you what it would have taken two years to develop the legislation ... and we would have had to deal with all this risk aversion and complexity," she said.

Father Percy said he was personally uncomfortable about the move to decriminalise the possession of drugs under certain thresholds, including cocaine, heroin and ice.

"I did a funeral a little while ago and the mother of these eight kids ... died of an overdose," he said. "And here we have a health minister saying 'go ahead with this sort of thing'."

The ACT laws will decriminalise the possession of 1.5g or less of amphetamine, cocaine, methamphetamine, MDMA and magic mushrooms and 1g or less of heroin. The possession of 0.001g or less of LSD will also be decriminalised. Those in possession of the drugs under the set thresholds will be given either a $100 fine or direction to attend an assessment or harm reduction session.

Ms Stephen-Smith has defended her comments revealing the government deliberately went to the election with the policy "quietly", saying she only meant she hadn't wanted to "shout it from the rooftops" for fear of stigmatising those using drugs.

But Father Percy said Ms Stephen-Smith's comments on how the ACT government was able to "quickly" legislate its policy demonstrated the government was being "disingenuous and dishonest" with constituents.

"The other issue that's going to come up now is with voluntary assisted dying laws ... and the government now is a law unto itself," he said.

The Australian revealed the ACT government was considering allowing people as young as 14 to be eligible for VAD, after the territory was given the power to make such laws by the federal parliament last year.

Australian Government
Department of Health and Aged Care
Office of the Gene Technology Regulator

Invitation to comment on the commercial supply of a genetically modified dengue vaccine, Qdenga

The Gene Technology Regulator is assessing an application from Takeda Pharmaceuticals Australia Pty Ltd for the commercial supply of a genetically modified (GM) dengue vaccine, Qdenga. The vaccine would be available under prescription for people travelling to dengue-affected areas. Before it can be used commercially, Qdenga must also be registered by the Therapeutic Goods Administration (TGA), which is responsible for assessing the quality, safety, and efficacy of human vaccines.

The Regulator has prepared a Risk Assessment and Risk Management Plan (RARMP) for this application and welcomes written submissions prior to making a decision on whether or not to issue the licence. The consultation RARMP and related information can be obtained via our website (search for DIR 196), or from the contacts below. Written submissions should reference DIR 196 and be received by **18 October 2023**.

Office of the Gene Technology Regulator
MDP 54 GPO Box 9848 CANBERRA ACT 2601
Telephone: 1800 181 030 Website: www.ogtr.gov.au E-mail: ogtr@health.gov.au

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Notice of change to Westpac Business Facility Agreement – Discharge Settlement Fee as of 29 September 2023

From 29 September 2023, the *Discharge Settlement Fee* will be included in the *Business Facility Agreement* for the Business Loan, Bank Bill Business Loan, Business Overdraft, Westpac Business One Loan, Westpac Agri Finance Loan and the Business Equity Access Loan.

This is an existing fee that is charged each time you discharge a security, including a mortgage, related to your loan.

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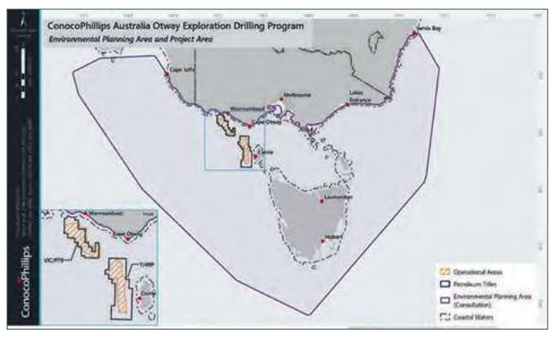
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Man who bludgeoned officer with bat ordered to pay $75k

Law and order

Jessica Howard
Warrnambool

A WARRNAMBOOL man who bludgeoned a police officer with a metal bat has been ordered to pay $75,000 in compensation.

Senior Constable Rowan Baldam was beaten to the ground, attacked and "totally incapacitated" in the foetal position as Warrnambool's Steven Cleary, 50, struck him to the head with a metal bat on October 9, 2021.

The officer and his colleague Constable Will Ringin had attended a routine job at the height of the coronavirus pandemic, stopping a male youth who was not wearing a mask, which was mandated outside at the time.

Cleary, a COVID-19 conspiracy theorist, was contacted via a walkie talkie and he soon arrived at the scene armed with the metal baseball bat.

He struck Senior Constable Baldam to the head with the bat, forcing him to the ground, and then repeatedly hit him as the victim lay in the foetal position in extreme pain.

How can I ever really feel safe doing something routine when it feels as if at any moment it could result in me being nearly killed?

Rowan Baldam

During the incident, Cleary repeatedly said he was the king and the incident was "an act of war".

In 2022 Cleary was jailed for three years and two months.

On August 31, 2023, Judge Caitlin English ordered Cleary pay $75,000 in compensation and $10,000 towards the victim's legal costs.

Cleary has been on the disability support pension since 1997 with the judge saying his earning capacity was "negligible".

But the court heard there was a restraining order on his



Harrowing footage has been released of a violent attack on two Warrnambool police officers in 2021.

Warrnambool home which was believed to have more than $500,000 in equity.

The judge said Cleary's wife and two of his children lived at that home and the burden of the compensation order was high.

Cleary did not appear in court for the hearing with the judge stating he'd refused to get on the prison bus or access an online link.

Judge English said the attack had left Senior Constable Baldam with physical and psychological injuries, as well as grief, distress and trauma.

She said Senior Constable Baldam had not worked since January 2023 and his future in the police force was in doubt.

The officer suffered a fractured left thumb, which required surgery and still causes him pain to this day, as well as a cut to his head which left a visible scar through his hairline.

In his victim impact statement read to the court in 2022, Senior Constable Baldam said he remembered sitting in the gutter after the attack with his head in his hands and "feeling the volume of blood that was flowing down my face and neck".

"I was very concerned I could lose consciousness at any time and I might not wake up," he said.

He said his sore thumb served as a constant physical reminder of the attack, impacting his mood and "bringing the vivid memory of being assaulted when it hurts".

"I am not sure if the thumb will ever be completely pain free," he said.

Senior Constable Baldam said at the time he often thought about the attack while at work, particularly when conducting routine jobs.

"How can I ever really feel safe doing something routine when it feels as if at any moment it could result in me being nearly killed?," Senior Constable Baldam said.

While once believing he'd be in the police force for life, the officer said upon his return he found the work joyless.

Police hit the water

Law and Order

Lillian Altman
Port Fairy

WATER police are investigating why a man was travelling on a boat without his licence or safety gear in Portland on Saturday.

Williamstown-based water police Acting Sergeant Peter Murphy said he, alongside Senior Constable Daniel Paisley, inspected about 20 boats in Port Fairy and Portland across September 2 and 3.

Acting Sergeant Murphy said police were investigating a boat user in Portland who was reportedly not carrying his licence and was without the appropriate safety gear.

He said the man wasn't wearing a personal flotation device (a life jacket) while on his boat.

"This is classed as a heightened risk," Acting Sergeant Murphy said.

"He also had expired flares that were out of date from 2021."

He said the man also wasn't carrying a licence but claimed a commercial licence was issued 25 years ago.

Acting Sergeant Murphy said police would look into the man's licence status.



Williamstown-based water police Senior Constable Daniel Paisley and Acting Sergeant Peter Murphy at the Port Fairy boat ramp. They conducted 20 inspections of boats and users in Portland and Port Fairy on September 2 and 3. Picture by Lillian Altman

"Outside of that, most of the boaties here and in Portland have been really good in regards to having the correct safety equipment and really proactive about the safety of their vessel and their passengers," he said.

Acting Sergeant Murphy said the blitz kicked off the busy season targeting marine safety and enforcement.

"To get the message across of the master's (the skipper's) responsibility for their vessel and their crew," he said.

Acting Sergeant Murphy said the pair checked whether flares were in-date and the right safety equipment was on board and that anyone travelling more than two nautical miles off the coast had an EPIRB (emergency position indicating radiobeacons).

The pair also visited the Portland Coast Guard.

Acting Sergeant Murphy said the patrols would ramp up in the south-west as the weather warmed up.

"We'd advise people prior to going out on the water, because their boats have probably been in storage for a good part of the year, to go over their boats and get it checked by a qualified mechanic, if needed," he said.

Man airlifted after collision

FROM: P1

"He was taken back to the station where he tested positive to methamphetamine. You just throw your hands up in the air. This numbskull was driving at that kind of speed with drugs in his system and the reality is he did delay the police response." Sergeant Walkley said the man was also found in possession of a taser. He said his car was impounded for 30 days and he would be summonsed to court on charges of excessive speed, drug-driving and weapon offences. Anyone with information on the crash phone 1800 333 000.

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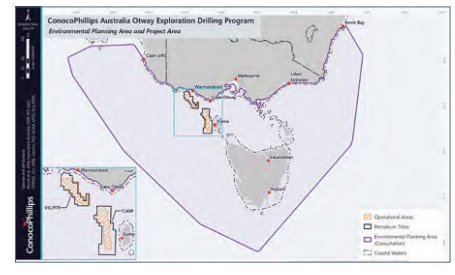
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'I said to myself I have to live'

Community

Jessica Greenan
Camperdown



Camperdown's Paige Prout rolled her car up to seven times in 2019 after falling asleep at the wheel. Inset, Ms Prout's scar on her arm. Pictures supplied.

AFTER breaking her arm, shoulder and pelvis in a car rollover, Camperdown's Paige Prout crawled to the side of the road and waited for help.

It was 2.30am on a December morning in 2019 when the 22-year-old crawled to the Hamilton Highway roadside after falling asleep at the wheel and rolling her car about seven times into a nearby paddock. She said a truck drove by, sounding its horn as it passed.

"I thought, 'Did they not see me?' Adrenaline kicked in and I said to myself I have to live," Ms Prout said. "When I first woke up in the paddock, I had wet grass and dirt all through my hair (and) it was fight or flight for me at that time. I couldn't find my phone to call for help.

"I looked up and 100 metres away I saw a car drive past, so I crawled to a fence. I put my foot in the fence and flipped myself over it to get to the road."

Nearly four hours later, a woman travelling from Warrnambool to Ballarat in a taxi saw Ms Prout lying roadside and instructed her driver to pull over.

"The woman helped me into the car," Ms Prout said.

"I wasn't aware of how bad my accident had been. I was three kilometres from home, but my house keys were on my car keys. When the ambulance arrived they said I shouldn't be standing.

"She heard me give my details to the ambulance and found my dad on Facebook and messaged him letting my family know I was in severe pain and on the way to Ballarat Base Hospital and needed them.

"The police said I had fallen asleep behind the wheel and my hand had hooked through the wheel and pushed the car off the road."

Ms Prout suffered multiple broken bones and a fractured back and has since had a metal plate and 10 bolts inserted into her shoulder. She said she was grateful she was alive to warn other young drivers.

"I thank my lucky stars that I'm here today to tell my story and warn other young drivers," she said. "You may think it won't be you that ends up injured in an accident but what happens when it is you? Will you survive or will you not be so lucky?

"Be careful and alert while driving at night. There aren't as many taxis and Ubers operating in regional areas. Often when you need a taxi late at night it won't be there for 90 minutes, and you think what is the point of phoning one? We need more taxis and public transport options in regional areas."

In the meantime, Ms Prout had more advice for young motorists.

"I thought because no one else was involved and it was a single vehicle accident that I couldn't get help or financial support," she said.

"In Victoria, the Transport Accident Commission is a no-fault scheme, meaning that if you have a single vehicle accident and even if you were in the wrong or at fault, you are still able to apply for compensation to assist with medical expenses and with your recovery."

Slater and Gordon senior associate Sarah Elseidy - who is representing Paige in a road injury claim - said single-vehicle accidents were common in regional areas.

"If you have been injured in a crash, it is still worth talking to a lawyer about your legal rights whatever your circumstances are," she said.



The Men's Table is a mental health initiative which encourages men to meet over a conversational meal each month. Picture supplied

Dinner concept in south-west gets men to dig into their feelings

Every topic will be on the menu when a new mental health initiative for men opens in Warrnambool next month. Demand for a south-west branch has driven not-for-profit organisation Men's Table to host its first meeting at the RSL on October 23. Regional host Dan Ball said the monthly conversational dinners would encourage men to "feel heard" in a safe and private environment. "It gives them a forum to talk about what's going on in their lives and their feelings. We had a couple of men contact us through our website telling us they loved the concept and would love one in Warrnambool, so we decided to follow the demand." Mr Ball said. "It's all about sharing feelings, which men are not generally very good at. This gives them a chance to get things off their chest." South-west men are required to book for the first session at themensatable.org/attend-an-entree/, which would run from 6.30pm - 9pm.

Warrnambool rents rise as economic distress grows

Real estate

Ben Silvester
Region

RENTAL prices in Warrnambool are trending upwards while vacancy rates hover at 15-year lows, according to the latest data.

The figures from investment research house SQM Research showed Warrnambool's vacancy rate hit a low of 0.3 per cent in September 2020 and hovering about 0.5 per cent since, with fewer than 40 properties available at any one time in the past three years.

The low availability of rental stock offers little hope prices will decline any time soon.

The Standard reported on September 4 that average monthly mortgage repayments in Warrnambool had jumped more than $2000 in the same three-year period, making home ownership unaffordable for the majority of locals.



Warrnambool rents are on the rise while vacancy rates are stuck at 15-year lows.

It is possible the increasing inaccessibility of home ownership is pushing more residents into the rental market, putting pressure on prices as flat supply fails to keep pace with demand. The rental price figures showed steady prices for nearly a decade as weekly rents hovered in the low $300 per week bracket until about September 2018 when they inched up to $350 to $380. But it was in September 2020 they really took off, rising from $350 per week to more than $500 per week in August 2023, and the trend line is still pointing higher.

The latest Census data from 2021 showed 28 per cent of Warrnambool residents rented, compared with 32 per cent who owned their home with a mortgage.

The 2021 Census also showed more than 30 per cent of rental households were in rental stress and the latest industry data suggested that had pushed beyond 50 per cent nationwide by mid 2023.

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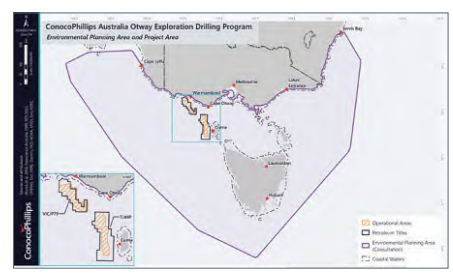
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Funding to make land more affordable in regional areas is desperately needed, according to Member for Wannon Dan Tehan.

Lack of land major problem

Housing

Monique Patterson
Region

THE federal government's Housing Australia Future Fund fails to address supply issues in regional areas, according to Member for Wannon Dan Tehan.

He has backed a call from independent politician Helen Haines for the federal government to fund the critical infrastructure needed to get regional housing developments off the ground.

Dr Haines put a proposal to parliament on Monday that would mandate a percentage of the National Housing Infrastructure Facility's funding be directed to the regions to build the roads, electricity and sewerage needed to grow housing supply.

"We have significant issues with the approach the Labor government is taking through its Housing Future Fund," Mr Tehan said. "Allowing local government in rural and regional areas to make more land available and to make it more affordable would help the situation."

Mr Tehan said the federal government's fund didn't look at providing key infrastructure for housing developments including sewerage, water and high-speed internet.

He said the federal government needed to prioritise funding for rural and regional areas to encourage more people to live outside of metropolitan cities.

State Member for South West Coast Roma Britnell told *The Standard* last month the region's housing crisis would get worse if more land was not made available.

Ms Britnell said the low supply of land was the most critical factor in the housing shortfall.

Dr Haines said the nation was faced with a shortage of infrastructure needed for housing developments.

'CRISIS' Region's housing shortage discussed at inquiry

Three-month search for Port Fairy rental proves fruitless

Housing

Monique Patterson
Region

A PORT Fairy woman has spoken about the challenges of accessing affordable housing at the state government's housing inquiry.

Jillian Warne joined a panel of renters at a hearing in late August.

"My experience is common to many women in their 60s, particularly in outer-regional or rural areas, where secure, well-paid work is rare," she said.

"I needed to find a house to rent.

"Despite contacting every real estate agent in the district and approaching home owners directly, I could not find anything in three months, despite being a desirable tenant: a mature person with no pets, able to care for a house and garden, able to pay rent and bond.

"I am currently house-sitting for a friend while they travel until October, paying rent and paying separately for storage."

Ms Warne said there were a number of barriers to availability and affordability in Port Fairy, including the proportion of homes being used as short-term holiday rentals.

"The housing market in Port Fairy is very strong and expensive - a beachside property recently sold for $7.2 million," she said.

The vacancy rates are very low for permanent rentals, with high demand for housing for workers across health, tourism and hospitality, and trade and engineering - for example, for wind farm developments.

> **This is no longer about the fading of the great Australian dream of home ownership, this is genuinely a crisis.**
>
> **Jillian Warne**

Ms Warne said the state and federal governments needed to take immediate action.

"This is no longer about the fading of the great Australian dream of home ownership, this is genuinely a crisis," she said.

"There are tens of thousands of people who are homeless.

"Young people will move out of Australia to somewhere where their tasks and skills and their work mean that they can afford a home and a decent standard of living, and older people are going to have to go into aged care sooner because there are no options for independent living in their community."

Mary-Ann Brown, who is a Southern Grampians Shire councillor and chair of Rural Councils Victoria, also spoke about the housing shortage at the inquiry.

"The lack of homes is having a detrimental effect across all sectors of the rural Victorian economy," she said.

"The lack of supply is the main reason for the affordability crisis we are seeing in rural Victoria, and there is also a serious shortage of rental properties for seasonal workers, who are vital to the production of the food that all Australians need."

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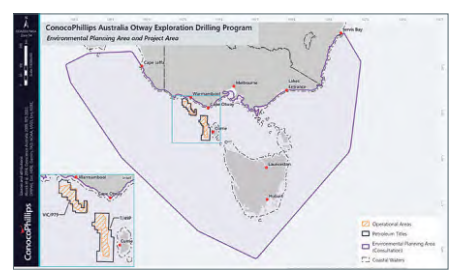

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ConocoPhillips
Relevant Person Consultation:
ConocoPhillips Australia
Otway Exploration Drilling Program

ConocoPhillips Australia is continuing to develop an Environment Plan for the proposed offshore Otway Exploration Drilling Program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P, located in Commonwealth waters.

ConocoPhillips Australia is releasing draft Environment Plan chapters to support consultation and has extended consultation on the proposed activity until **30 September 2023**, after which time we will pause consultation so we can collate a submission to NOPSEMA for public comment and assessment. Relevant persons can view the draft Environment Plan chapters and information on how to provide feedback via the consultation hub by scanning the QR code below or can request copies of the draft chapters and other relevant information, by contacting ConocoPhillips Australia.

We are asking relevant persons to provide feedback by **30 September 2023.**



The Environmental Planning Area covers the area assessed within the Environment Plan and encompasses a wide range of habitats and marine species, cultural values and socio-economic activities

For more information:
E: otway@conocophillips.com | T: 07 3182 7122
conocophillips.com.au

SCAN HERE
CMM29894CP_STA

Large planting to protect species future in our waterways

Environment

Madeleine McNeil
Warrnambool

MORE than 15,000 native trees and shrubs have been planted in a mammoth community effort to provide threatened species, including platypuses and fish, with habitat for years to come.

The mass winter planting is part of a Warrnambool-wide waterway health improvement initiative and the last of the shrubs were planted on Wednesday, August 23.

The Glenelg Hopkins CMA plantings have been conducted on public and private land along the banks of the Hopkins and Merri rivers and Brucknell Creek as part of the Rivers of Warrnambool Flagship Waterways Project.

Glenelg Hopkins senior waterways officer Chris Wilson said 15,000 plants had gone in across 15 sites around the Warrnambool waterways.

Community members including landholders, local groups, students and staff from Emmanuel and King's colleges have helped with the project.

Mr Wilson said native plants were necessary along waterways to replace invasive and non-native species, to stabilise the banks and provide shelter and habitat for native animals, in and out of the water.

A real long-term investment

Chris Wilson

"This waterway project is a real long-term investment in the waterway health of the rivers of Warrnambool," Mr Wilson said.

"Having the school students involved in the planting of these areas is a really great way for them to gain an understanding of the importance of our waterways and the role native plants play in waterway health and the way they benefit our native species.

"These students are the people who are going to be enjoying these plants once they establish in years to come and it's fantastic to have them involved."

King's College teacher and school chaplain Marko Wakim said the students loved getting their hands dirty and knowing their actions helped make a difference.

He said the year nine students participated in the Merri River planting as part of the college's community services class and it was followed by a spot of fishing nearby to demonstrate the various recreation options rivers provided.

It is one of the year level's many volunteering roles with its 19 students often helping out at the Salvation Army op shop and at regular rubbish clean-ups in the city.

Mr Wakim said the subject highlighted the importance of volunteering in the community and how the teenagers' skills could benefit society.

"Hopefully it's something they remember with fondness that they can take with them into adulthood and maybe they'll be the ones to encourage and inspire other young people to volunteer later on," Mr Wakim said.

The planting activities are a part of an overall $1.02 million Victorian government investment in the Rivers of Warrnambool Flagship Project to protect, improve and restore the health of the waterways surrounding Warrnambool.







King's College year nine student Logan Brown planting along the Merri River. Top right, Esther Wakim and, bottom right, Toby Pearce. Pictures by Anthony Brady

Same, but new name

Community

Madeleine McNeil
Region

WARRNAMBOOL & District Food Share has outgrown its original service area, launching a new name to reflect its broader reach and strengthen its impact.

Now known as Western District Food Share, the organisation will continue providing emergency food relief to people in need across the south-west. Executive officer Amanda Hennessy said the rebranding, which came into effect Friday, August 25, reflected the organisation's expanding scope and its commitment to serving the broader region, which encompassed the south-west community.

"In 2022 alone, Western District Food Share distributed 164 tonnes of food, providing sustenance to over 55,000 people in our community," she said. "Our new name, Western District Food Share, articulates our determination to reach more individuals across our region who require assistance.

"Our dedication to addressing food insecurity and improving lives remains unchanged. We believe this rebranding will help us connect with a broader audience and strengthen our impact."



Western District Food Share executive officer Amanda Hennessy and volunteers JP Gaston and Darlyne Gerrard with some of the new signage installed as part of a name change and rebranding that came into effect on Friday, August 25. Picture by Eddie Guerrero

Ms Hennessy said the decision to change the name came after careful consideration and was in response to feedback from its partners and stakeholders.

She said the organisation had been "a steadfast pillar of support for individuals and families in our community facing food insecurity" for more than a decade, thanking the community for its "unwavering support". "We extend our heartfelt gratitude to each individual, organisation, and volunteer who has contributed to our mission of addressing food insecurity in our community."

Ms Hennessy said Western District Food Share would continue to collaborate with local partners, agencies, schools' volunteers and donors to distribute emergency food. The nonprofit works with partners and volunteers to collect, store and distribute emergency food to individuals and families in need.

She said the name change included a refreshed brand with a new logo, updated contact information, social channels and website. Go to districtfoodshare.org.au

Wind turbine catches fire

Wind farm operator Pacific Blue is investigating the cause of a fire in a turbine at Yambuk on August 27. The incident happened at the Yambuk wind farm off the Princes Highway about 9.30am. A CFA spokesman said one of the wind turbines caught fire at the top.

He said crews monitored the fire from the ground in case any sparks dropped. The incident was marked under control at 10.09am but emergency services remained in the area to monitor the situation. The spokesman said the last appliance left the scene at 12.40pm and that the cause would be investigated.

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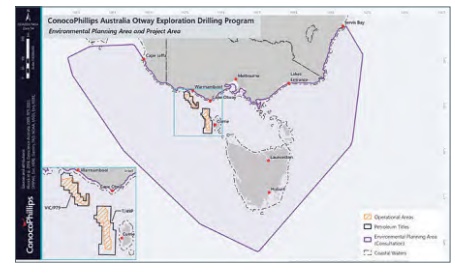
Relevant Person Consultation:

ConocoPhillips Australia
Otway Exploration Drilling Program

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We are asking relevant persons to provide feedback by **30 September 2023.**



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For more information:
E: otway@conocophillips.com | T: 07 3182 7122
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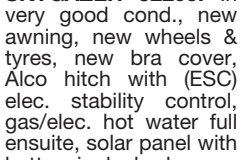


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Public Notices



Caravans and Motor Homes



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Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30602CP

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- The Border Mail (Albury/Wodonga, VIC)
- The Examiner (Launceston, TAS)
- Illawarra Mercury (Wollongong, NSW)
- The Courier (Ballarat, VIC)
- The Standard (Warrnambool, VIC)
- Central Western Daily (Orange, NSW)
- Bendigo Advertiser (Bendigo, VIC)
- The Daily Advertiser (Wagga Wagga, NSW).

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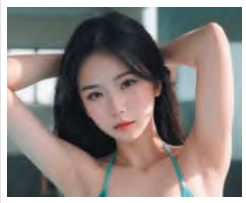
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Notices

Public Notices

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ConocoPhillips

CMM30596CP

Environment Protection Authority

LICENCE CONDITION RELAXATIONS

Notice is hereby given pursuant to Section 46 of the Environment Protection Act 1993, of the proposal to vary licence 50757 held by the CU-RIVER PORT AUSTRALIA PTY LTD for their site located at the former Port Augusta power station site, Power Station Road, PORT AUGUSTA.

In simple terms, this proposed variation involves the alteration of a licence condition that requires the licensee to provide the EPA with a financial assurance of $2.4m. This is to ensure funds are available to meet closure obligations associated with the site in the event the licensee is not able to fulfil them. The condition was initially added to the licence in May 2019. In order to reflect progress made with site rehabilitation since 2019 and the associated reduction in the remaining costs required, the amount of financial assurance required is proposed to be reduced to $1.075m.

Written public comment is invited and must be received by **5.00 p.m. on 6th December 2023.**

Submissions for relaxations may be emailed to epalicensing@sa.gov.au or posted to:
Regions & Licensing Services, EPA
GPO Box 2607
Adelaide SA 5001.

EPA South Australia

W20545

CITY OF Playford

Adoption of Community Land Management Plans (CLMPs)

NOTICE is hereby given that at the City of Playford Ordinary Council meeting held on 26 September 2023 Council resolved to adopt the updated CLMPs, pursuant to section 198(4) of *the Local Government Act 1999*.

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CITY OF TEA TREE GULLY
Naturally Better

Removal of vehicle notice

Take note that in accordance with Section 237 of the Local Government Act 1999, the following vehicle has been removed from the place stated in this notice:

Make/Model	Registration	Removed from	Date Removed	Time Removed
Hyundai Sedan	WZC002	Milne Road, Modbury Heights	27 October 2023	3.26pm

Council has been unable to locate the registered owner of this vehicle. If you are the registered owner of this vehicle, contact the City of Tea Tree Gully on 8397 7313.

If the registered owner of the vehicle does not take possession of the vehicle and all expenses related to the removal, custody and maintenance of the vehicle and of publishing this notice are not paid within one month of the date of this notice, Council will take steps to sell or dispose of the vehicle in accordance with Section 237 of the Local Government Act 1999.

For more information, please contact us on 08 8397 7444 or visit www.teatreegully.sa.gov.au

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Local Government

AGM & Annual Report 2022-2023

Members of the community are invited to make submissions regarding the Draft Annual Report 2022-2023.

Submissions are for discussion at the Annual General Meeting to be held on Tuesday 12 December 2023 at 4.50pm at the West Coast Council, 11 Sticht Street Queenstown. Submissions should be in writing to the General Manager, PO Box 63 Queenstown Tas 7467, or sent via email to communityconsultation@westcoast.tas.gov.au and received no later than close of business Thursday 7 December 2023.

The draft Annual Report is available to view at Council's Agencies and website www.westcoast.tas.gov.au

Enquires should be directed to Council's Executive Officer at ea@westcoast.tas.gov.au or by calling (03) 6471 4721.

David Midson
GENERAL MANAGER

TA5875657

WESTCOAST.TAS.GOV.AU

Local Government

Ordinary Meeting of Council

An Ordinary Meeting of Council will be held at the West Coast Council Chambers, 11 Sticht Street Queenstown on Tuesday 28 November 2023, commencing at 5.00pm.

Meeting attendance is via registration and is subject to Council's Covid-19 safety procedures.

The public may view the meeting Live by visiting www.westcoast.tas.gov.au and following the prompts.

Questions without notice can be submitted to Council via the General Manager, 7 days prior to the day of the meeting.

Public questions and attendance registration, should be submitted to ea@westcoast.tas.gov.au or post to PO Box 63 Queenstown 7467.

The Agenda will be available on Council's website from Thursday 23 November 2023.

David Midson
GENERAL MANAGER

TA5875654

WESTCOAST.TAS.GOV.AU

Local Government

BURNIE CITY COUNCIL

NOTICE OF APPLICATION FOR LAND USE PERMIT
(Section 57(3) Land Use Planning and Approvals Act 1993)

Application for use and development of land has been received:-

Application No:	DA 2023/103
Site:	2-10 Massy-Greene Drive SOUTH BURNIE - CT 165351/7
Proposal:	Convert exiting billboard sign into an Illuminated sign
Discretionary Matters:	Reliant on performance criteria for grant of permit – Clause C1.6.1 (P1.2), C1.6.2 (P1) & C1.6.3 (P1)

The application may be viewed at the Burnie City Council Offices, 80 Wilson Street, Burnie between 8.30am - 5.00pm Monday to Friday inclusive or on Council's website at – www.burnie.tas.gov.au/permits

Any person may make representation relating to an application in writing addressed to the General Manager, Burnie City Council, PO Box 973, Burnie 7320 or burnie@burnie.tas.gov.au by no later than 5.00pm on 6 December 2023

Dated: 22 November 2023

Simon Overland
GENERAL MANAGER

TA5877804

www.burnie.tas.gov.au

BURNIE CITY COUNCIL

CENTRAL COAST COUNCIL

19 King Edward Street
Ulverstone Tasmania 7315

Tel. 03 6429 8900
admin@centralcoast.tas.gov.au
www.centralcoast.tas.gov.au

NOTICE OF THE ANNUAL GENERAL MEETING OF THE COUNCIL

Notice is given that the Annual General Meeting (AGM) of the Central Coast Council will be held in the Council Chamber at the Administration Centre, 19 King Edward Street, Ulverstone on 11 December 2023. The meeting will commence at 7pm.

The Council's Annual Report 2022–2023 is now available from the Council's website under the Council > Publications tab or from the Council's Administration Centre, 19 King Edward Street, Ulverstone or the Service Centre, 78 Main Road, Penguin.

Written submissions in respect of the Annual Report 2022–2023 are invited and should be lodged with the Executive Services Officer by 4pm on Tuesday 5 December 2023.

Submissions can be lodged electronically to admin@centralcoast.tas.gov.au or posted to PO Box 220, Ulverstone TAS 7315.

Submissions and responses are included in the agenda for discussion at the meeting. A light supper will be provided.

RSVPs are essential and can be made by email to mellissa.eastley@centralcoast.tas.gov.au or by calling tel. 6429 8900 by 4.30pm on Thursday 30 November 2023.

Date of notification: 22 November 2023.

BARRY OMUNDSON
General Manager

Public Notices

CRADLE COAST AUTHORITY
Stronger Councils, Stronger Region

Notice of Annual General Meeting

The Annual General Meeting of Cradle Coast Authority will be held on **Tuesday, 12th of December 2023 at 9.30am** at Cradle Coast Authority, 1-3 Spring Street, Burnie.

The business of the meeting is to present the Annual Report.

Any queries please contact Cradle Coast Authority via email admin@cradlecoast.com or phone 6433 8400.

The Hon Sid Sidebottom
Chairman

TA5877840

ADMINISTRATION AND PROBATE ACT 1935

Notice to Creditors

Donald Lawrence Viney, late of Umina Park Nursing Home, Burnie in Tasmania, Deceased; Creditors, next of kin and others having claims in respect of the estate of the deceased, who died on 19 June 2023, are required by the Personal Representatives, Alan Graeme Smith and Noel Edward Bottle, to send particulars of such claim to the Personal Representatives C/- Rod Glover Legal Lawyers & Conveyancers, PO Box 42, Wynyard in Tasmania by 22 December 2023, after which date the Personal Representatives may distribute the assets having regard only to the claims of which the Personal Representatives then have notice.

Dated this 22nd day of November 2023

ROD GLOVER LEGAL

Practitioners for the Personal Representatives

Public Notices

TASCAT

In the General Division - Resource & Planning Stream

A hearing has been listed for the following matter/s:

No & Details	Date of Hearing
P2023/19 30 Arthur Street, Shearwater	Tues 28 - Wed 29 November 2023 10.00 am

Any person, who complies with the statutory requirements, may apply to be made a party to the proceedings forthwith, in writing to GPO Box 1311, Hobart 7001 or email resourceplanning@tascat.tas.gov.au.

Please read information on the Tribunal's website at www.tascat.tas.gov.au regarding attending Tribunal hearings and COVID-19 safety requirements.

Tribunal offices: 38 Barrack Street, Hobart
Postal Address: GPO Box 1311, Hobart
Email: resourceplanning@tascat.tas.gov.au



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KENTISH COUNCIL

APPLICATIONS FOR PLANNING PERMIT

The following applications have been received under Section 57 of the *Land Use Planning & Approvals Act 1993*:

Application No.:	K-DA060/2023
Site:	27 Williams Road, Wilmot
Proposal:	Visitor Accommodation – proposed Caravan Park Sites (x12) with underground power.
Application No.:	K-DA069/2023
Site:	Lot 1 Smith Road, Roland (CT231813/1)
Proposal:	Residential – proposed Dwelling.

The applications and associated materials will be available for inspection at the Council office during normal office hours or at www.kentish.tas.gov.au for a period of 14 days from the date of publication of this notice (not including 1 December 2023). In accordance with Section 57(5) of the *Land Use Planning & Approvals Act 1993* any person may make representation in relation to the proposals by letter addressed to the General Manager or email addressed to council@kentish.tas.gov.au by close of business 7 December 2023.

Dated at Sheffield this 22 November 2023.
Gerald Monson
GENERAL MANAGER

KENTISH

TA5877884



Public Notices



Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

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ConocoPhillips

CMM30603CP

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ConocoPhillips

CMM30598CP

CITY OF MELBOURNE DRAFT PLACE AND ROAD NAMING POLICY AND GUIDELINES OPEN FOR COMMUNITY CONSULTATION

Council has drafted a Place and Road Naming Policy and Guidelines for community feedback.

Under the draft policy, Melburnians will have a greater say in naming new and unnamed lanes, roads and public spaces, with an emphasis on correcting the imbalance that sees women and Aboriginal culture underrepresented.

The policy also shifts to a community-led naming approach, to ensure Melbourne is reflective of its diverse community.

Visit Participate Melbourne to have your say before **Wednesday 20 December 2023** at **participate.melbourne.vic.gov.au/place-and-road-naming-policy**

For more information please visit our website **melbourne.vic.gov.au**

CITY OF MELBOURNE



To advertise in our Tenders classification

P: (03) 9420 3464 or
E: salessupport@nine.com.au

THE AGE



WOULD YOU LIKE TO ADVERTISE AN UPCOMING AUCTION?

To advertise in our Auctions classification
P: (03) 9420 3464 or
Email: salessupport@nine.com.au

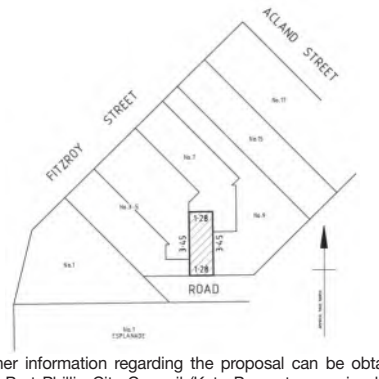
THE AGE

CITY OF PORT PHILLIP

PROPOSED DISCONTINUANCE AND SALE OF ROAD ADJOINING THE PROPERTIES AT 3-5, 7, 9 AND 15 FITZROY STREET, ST KILDA VIC 3182

PUBLIC NOTICE INVITING SUBMISSIONS UNDER SECTION 223

Port Phillip City Council ("**Council**"), gives notice under section 206 and clause 3 of Schedule 10 of the *Local Government Act 1989* ("**1989 Act**") and section 114 of the *Local Government Act 2020* that Council proposes to discontinue the road adjoining the properties at 3-5, 7, 9 and 15 Fitzroy Street, St Kilda VIC 3182, being the land contained in certificate of title volume 2591 folio 074 and as shown hatched on the plan below, and to sell that land to the owner of the properties at 3-5, 7, 9 and 15 Fitzroy Street, St Kilda VIC 3182.



Further information regarding the proposal can be obtained from Port Phillip City Council (Kate Psomotragos via phone: 03 8563 7885).

Any person may make a submission on the proposal. Any person wishing to make a submission must do so in writing by Wednesday 20 December 2023.

Submissions should be submitted via Council's website or addressed to Kate Psomotragos and posted to Port Phillip City Council, Private Bag 3, St Kilda, Victoria 3182. Submissions can also be hand delivered to 99A Carlisle Street, St Kilda 3182.

All submissions will be considered in accordance with section 223 of the 1989 Act. No further community consultation process will be undertaken.

Any person making a submission is entitled to request in the submission that the person wishes to appear in person, or to be represented by a person specified in the submission, at a meeting to be heard in support of that submission.

Any person requesting to appear in person or to be represented by a person specified in his or her submission will be notified of the day, time and place of the meeting of the Council or of a committee determined by the Council to hear submissions.

Following consideration of submissions, Council may resolve not to discontinue the road or to discontinue the road and either sell the land from that road or retain the land.

CHRIS CARROLL
Chief Executive Officer

G13072767AA-211123

Be an informed investor

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Commercial Real Estate

HERITAGE ACT 2017

PLEASE TAKE NOTICE THAT an application under Section 93 of the Heritage Act 2017 for a permit for works to undertake internal renovations to join two tenancies including enclosure of outdoor verandah, obstruction of original features, installation of fireplace, new outdoor seating area, alterations to existing entry, and internal demolition of original fabric has been lodged with the Executive Director, Heritage Victoria.

A copy of the application is available for inspection at www.heritage.vic.gov.au or at the offices of Heritage Victoria between the hours of 10.00am and 4.00pm, by appointment only.
Telephone (03) 7022 6373 to make an appointment.

Any person may lodge a submission in respect of the application within 14 days of publication of this notice. Submissions must be in writing and addressed to Heritage Victoria PO Box 500 Melbourne 8002. Please note that any written submission received will be treated as a public document.

Law Notices

Lexie Patricia Luly, late of 17-21 Ashley Street, Reservoir, Victoria, Teacher, Deceased.
Creditors, next-of-kin and others having claims in respect of the estate of the Deceased, who died on 17 November 2022, are required by the Executor, Eleni Prineas to send particulars of their claim to them, care of the undermentioned solicitors, by 60 days, after which date, they may convey or distribute the assets, having regard only to the claims of which they then has notice.
VELOCITY LEGAL
PO Box 24071, Melbourne VIC 3001

Local Government Tenders

City of Moonee Valley

Tender documents can be downloaded free of charge by visiting Council's e-tendering website https://mvcc.vic.gov.au/how-do-i/apply/tenders/.

Submissions are to be lodged as detailed in the documentation via the e-tendering website no later than the specified closing date and time.

Late, emailed, hard copied or facsimiled submissions will not be accepted. Council is not bound to accept the lowest or any tender.

City of Moonee Valley

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Local Government Tenders

MANNINGHAM

are invited for:

MP000768 Physical Access and Remote Access Control Small and Medium Council Buildings

www.manningham.vic.gov.au/tenders

Tenders

Melbourne Archdiocese Catholic Schools

Registered Building Contractors are invited to register their interest for the construction of a new 2 storey 2250m2 administration and music building and associated external works, tendering in early February 2024.
To receive the Request for EOI documentation please register your interest to:

APARTMENTS AND FLATS TO RENT

Fully Furnished, Sleeps 6.
Available 23rd December,
For 2 weeks. Best offer.
Please contact 0418 206 576

Colleges and Schools

Mordialloc College

Mordialloc College
has vacancies for
Teacher of French - Yrs 7 to 10 - Ongoing



Promote your school

The Age is the perfect news environment to engage a high value audience and promote your school or educational institution.

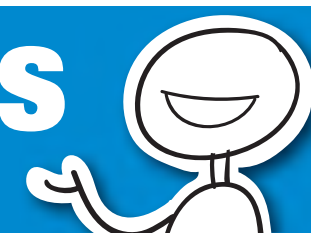
For more information, contact John Clements on jclements@nine.com.au or 0467 806 955

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Bega District News

Phone: 6492 1177
Email: classifieds@begadistrictnews.com.au



Bega District News

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Advertising self service enquiries:
acmadonline@austcommunitymedia.com.au

Self Service

Livestock

BEGA SPECIAL STORE CATTLE SALE
THURSDAY 30th NOVEMBER 2023 10AM

600..... CATTLE 600

350 Steers 8 months to 24 months
200 Heifers 8 months to 24 months
50 Cows with Calves

Please view full listing of this sale at:
herdonline.com.au

BEGA ASSOCIATED AGENTS

CHESTER & SMITH 0408 286 312
PELL RIXON 0408 604 297

General Notices

Pambula & District Community Development Ltd

Seeking Volunteer Board Members

Become part of a forward thinking Board and help reshape the future of community banking in Bega Valley Shire and Bombala area.

Our company has been established for fifteen years to provide support for our communities through banking services and by returning profits to Community groups. Pambula & District Community Development Limited (PDCDL) is a franchisee of Bendigo Bank and operates the locally owned Community Bank branches in Pambula and Bega, as well as a new office in Bombala.

Role and Responsibility:

As a director you will be,

- Motivated, well organised, self-directed and most importantly, community orientated.
- Support and drive the company's strategic direction, goals and objectives to have a real say in the future direction of this dynamic business and its support of our community.

As part of an important process of Board renewal, PDCDL is searching for new Board Directors with relevant **skills and experience in the key areas of Community, Communication, Corporate Governance and Leadership.** PDCDL is in a strong financial position, with a highly skilled volunteer Board and staff.

Send your covering letter and CV, or questions to Graham Stubbs at
Pambulacommunitybank@gmail.com

Bendigo Community Bank
Pambula, Bega & Bombala

Positions Vacant

MERIMBULA RSL CLUB - PERM PART BAR SUPERVISOR

Essential*RSA&RCG

Preferred*Experience in running a bar

*Supervising staff

Must be able to work days/nights and weekends

To apply please email your resume and cover letter to emmai@merimbularsl.com.au

Applications close Wednesday 29th November 2023 at 5pm.

(Only short listed applicants will be contacted)

Area: MERIMBULA NSW 2548

Ph: 0264951502

Email: emmai@merimbularsl.com.au

Positions Vacant

GPM Marine

Construction company looking for a Labourer /Carpenter assistant to work at the wharf project in Tathra.
Works expected to continue till mid-2024.

Requirements include a white card, own transport, strong communication & workmanship.

Please admin@gpmmarine.com.au or office on **02 9882 3755**.

Club BEGA

FULL TIME COOK/S WANTED!!!

Club Bega Ltd trading as Club Bega located at 82 Gipps Street, Bega, NSW, 2550, is currently seeking talented and dedicated Full Time Cook for the daily operation of our busy kitchen.

Major duties of Cook:

- Must display excellent prep, cooking and plating skills
- Strong emphasis on quality and consistency of dishes
- Demonstrate a keen Interest in growing food trends and techniques
- Work with the management team on food preparation and seasonal menu planning
- Stock ordering
- A sound knowledge of food safety, hygiene and WHS numbers
- Above average customer care and service skills
- Immaculate presentation and grooming
- Ability to handle large service numbers
- Cook needs to be able to train our junior team on cooking techniques and procedures
- Discuss customer requirements and request with the frost on house team

Work experience: At least three years' experience in a fast-paced kitchen is preferred.
Education/Skills: At least Certificate III in Commercial Cookery or Hospitality
Salary: A$65,000–A$75,000 + Superannuation
Annual Leave: 4 weeks
Working Hours: 38 Hrs per week

Interested candidates, please send your resume to: dave@clubbega.com.au

Club BEGA

FULL TIME CHEFS WANTED!!!

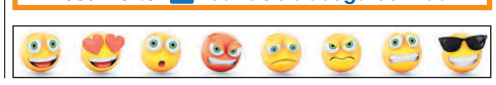
Club Bega Limited, located at 82 Gipps Street, BEGA NSW 2550, is currently seeking talented and dedicated Full Time Chefs for the daily operation of our busy kitchen.

Major duties of Chef:

- Plan and develop menus, specials, and specialty menus
- Analyse recipes to assign prices to menu items, based on food, labour, and overhead costs; & Ordering food and supplies
- Assisting in maintaining high standards and quality in food items and dishes at all times including preparation and presentation.
- Ensuring an exceptional and consistent level of service in a clean and professional environment by adhering to OH&Smethods; & Actively participate in regular team meetings.
- Follow standard recipes and preparation procedures set by the company for the preparation and cooking of food
- Assisting the kitchen team in maintaining and controlling the hygiene and aesthetics in all areas of the food operation to a high standard.
- Following directives as set by senior kitchen staff to ensure high and consistent standards.
- Reporting to management and recording all wastage, breakages, damages, and loss of assets, using the appropriate form
- Participation in regular training and development sessions
- Participate in hiring kitchen team members and conduct required training
- demonstrating techniques and advising on cooking procedures including (but not limited to) freezing and preserving of food

Work experience: At least three years' experience in a fast-paced kitchen is preferred.
Education/Skills: Relevant Qualifications in Commercial Cookery
Salary: A$65,000–A$75,000 + Superannuation
Annual Leave: 4 weeks
Working Hours: 38 Hrs per week

Interested candidates, please send your resume to: dave@clubbega.com.au



Positions Vacant

Current Vacancies Bega NSW

Production Manager - Retail

We are looking for a strong people leader to join our Lagoon St team in the Bega Valley and manage out Retail Production (Stringers and portions). If you have previous leadership experience in manufacturing and FMCG, this could be the role for you!

Please go to the website to access further information about this vacancy and to apply.

www.begacheese.com.au

Bega GROUP
creating great food for a better future

Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

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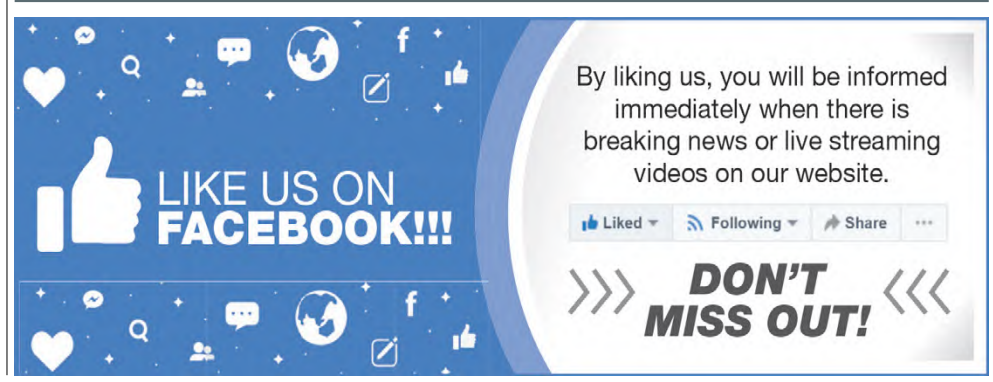
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About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

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ConocoPhillips

CMM30607CP



Public Notices

The AGM of the Pig & Whistle Fleet Club Inc (Tathra Wharf Museum) will be held on Saturday 25 November, 3.00pm, at The Museum Wharf Rd, Tathra. All welcome.

SAVE TIME, SUBMIT ONLINE

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Telephone: 5593 1888

To Lease

FOR LEASE BY TENDER

ELINGAMITE NORTH
450 ACRES – 182.11 HECTARES

2 YEAR TERM COMMENCING DECEMBER 1, 2023

Tenders close Thursday November 30, 2023 at 3.00pm

For terms and conditions and a tender form Highest or any tender not necessarily accepted

CHARLES STEWART NASH McVILLY

219 Manifold Street Camperdown
5593 2288
Alister Nash 0427 932 264

Wanted to Buy

MILK VATS
PAYING
$150 - $1,000
Any reasonable condition considered

Phone Telly Katsaros on 0427 368 261

TURN YOUR
SCRAP METAL
INTO CASH$$$
Radiators, engines, farm machinery, copper, brass, aluminium, lead, steel, sheets of iron, fencing wire, milk vats, hot water services etc.
GOOD PRICE OFFERED
Call Gerard between 8am-9pm on 5566 5168 or 0409 245 895.

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ConocoPhillips

CMM30601CP

Visit us at **quit.org.au**
To order your FREE quit pack or call Quitline 137848

Public Notices

Notice of meeting

CORANGAMITE SHIRE — love CORANGAMITE

The next meeting of Council will be held on:

Tuesday 28 November at 7 pm
Killara Centre, Manifold Street Camperdown

The meeting is open to the public, however, residents are encouraged to watch a livestream of the meeting on Council's Facebook page facebook.com/CorangamiteShire

The meeting will include an Open Forum, during which you may ask questions or make a statement. Questions and statements for the Open Forum by anyone not attending the meeting in person can be sent via email to governance@corangamite.vic.gov.au no later than 12 pm on Tuesday 28 November.

corangamite.vic.gov.au

Public Notices

TIMBOON OPPORTUNITY SHOP

Opening Hours:
Mon-Fri: 10-4pm
Sat: 9am-12noon

Check out the shed for furniture, study/office desks, wheelchair and shower chair.

Christmas decorations, potted plants and lemons.

Check out TOPS page on Facebook or phone on 5598 3055

Churches

PORT CAMPBELL BAPTIST CHURCH
Every Sunday at 10.30am
All welcome
This week's speaker: James O'Brien
Enquiries: James O'Brien 0429 960 821

Public Notices

COBDEN M.O.W. ROSTER

Thu. Nov 23: L & C Brown; **Fri. Nov 24:** S Oates; **Sat. Nov 25:** F & L Warden; **Sun. Nov 26:** D Brownlaw; **Mon. Nov 27:** S Oates & B Hallyburton; **Tues. Nov 28:** F & L Warden; **Wed. Nov 29:** M Beechey & J Bourke.

If you are unable to do Meals on Wheels on the days rostered please try to arrange a swap or phone Kate Daffy 5595 1020 or Fran Warden 5595 1241.

Recipients to cancel meals ring Cobden health 5595 3122.



Southern Waste Disposal

Timboon Plumbing & Pumps P/L

- Septic tanks
- Grease traps & liquid waste pumped out
- Over 30 years experience in the industry.

68 Bailey Street, Timboon.
Phone 5598 3143

BRAIN BOOSTER ANSWERS

CROSSWORD

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7N	E	G	A	T	E		8U	N	L	O	C	K
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WORDSEARCH

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E	M	I	P	G	P	O	S	T	E	R	I	M



yes, it's **our local** paper

WD NEWS PUBLICATIONS

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- Camperdown Chronicle
- Terang Express
- Cobden Timboon Coast Times
- Mortlake Dispatch

Classifieds

Telephone: 5593 1888

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5593 2288
Alister Nash 0427 932 264

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MILK VATS
PAYING
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Any reasonable condition considered

Phone Telly Katsaros on 0427 368 261

TURN YOUR
SCRAP METAL
INTO CASH$$$
Radiators, engines, farm machinery, copper, brass, aluminium, lead, steel, sheets of iron, fencing wire, milk vats, hot water services etc.
GOOD PRICE OFFERED
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ConocoPhillips

CMM30601CP

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WORDSEARCH

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WD NEWS PUBLICATIONS

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- Camperdown Chronicle
- Terang Express
- Cobden Timboon Coast Times
- Mortlake Dispatch

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classifieds@colacherald.com

Office hours

Monday to Thursday 8:30am to 5:00pm
Friday 8:30am to 4pm

Deadlines

Monday edition

Word adverts: 4pm Friday
Display adverts: 3pm Friday or 11am if proof required
Death & Funeral notices: 11.30am Sunday

Wednesday edition

Word adverts: 12 noon Tuesday
Display adverts: 12 noon Tuesday or 9am if proof required
Death & Funeral notices: 11.30am Tuesday

Friday edition

Word adverts: 12 noon Thursday
Display adverts: 12 noon Thursday or 9am if proof required
Death & Funeral notices: 11.30am Thursday

Advertisement proofs

Any two or three column advertisements requiring proofs must be submitted 3 hours prior to deadline. Proofs are **not** provided for single column and line advertisements.

Advertising conditions

Advertiser's full name and address must be supplied even if it is not included in the advertisement.

Birth notices require the signatures of both parents if both are mentioned in the advert before being accepted. These notices must be placed in person.

Wedding and Engagement notices require the signatures of both parties before being accepted.

Death notices will only be published after family notices from the funeral director or the immediate family. Where authorisation cannot be verified, notices will be held over.

Advertising cats and dogs for sale. Victorian Domestic Animals Act 1994 states all dogs and cats be microchipped before being given away or sold. Each animal advertised must contain a unique microchip number and also a source number of the seller from the Pet Exchange Register or the business registered number and council from where it is registered.

Motors advertisers. Private vendors of motor cars advertised for sale must include the price of the vehicle and either a registration number of the vehicle (if registered) or the engine number (if unregistered).

Found advertisements are published free. Simply provide us with the details for publishing.

Advertisements must be pre-paid unless the client has an existing account with the Colac Herald. Accounts must be paid for on the due date shown on the account.

Advertisers responsibility

Every business must honour its obligations under the Australian Consumer Law. Businesses must not make false, misleading or deceptive claims about a product or service.

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Members of

The Victorian Country Press Association Ltd

Publishers' Advertising Advisory Bureau Australia

BIRTHS

HALLYBURTON (Anderson) -
Bonnie and Chris are thrilled to announce the birth of
LIV MAREE
on November 19, 2023, weighing 8lb 15oz.
Very excited brother and sister Mac and Ava and grandparents Heather and Bruce and Sally and Neville along with all their families are rapt to welcome our little Liv.

DEATHS

RICHES (nee McMahon) -
Denise Margaret.
10.2.1950 – 18.11.2023.
Passed away peacefully, aged 73 years.
Dearly beloved wife of Noel (dec).
Much loved Mother of Cameron (dec), Stefanie, Jane and Adam.
Cherished Nan of Jaylan.
Love does not end.

RICHES -
Denise.
18.11.2023.
Your battle is over Denise.
Now resting peacefully with Noel and Cameron.
Loved sister-in-law of Norm (dec) and Marj.
Loved aunty of Sandra and Ken, Vicki, Carolyn and Cliff and Kelman (dec).

RICHES -
Denise.
Loved niece of Jack and Eily Mahoney (both dec).
Loved and frustrating cousin of Brian (dec) and Lesley (WA), Graham and Maureen, Pam and Terry Mullane, Helen and Brian Benson, Kevin (dec), Leanne and David Best (WA), John and Sharon, Peter, David and Jill.
Many memories.
Now at Peace.

FUNERALS

RICHES –
Requiem Mass for the repose of the soul of Mrs Denise Margaret Riches will be offered at St. Mary's Catholic Church, Gellibrand Street, Colac on Tuesday, November 28, 2023 commencing at 11 am.
The funeral will leave the Church at the conclusion of the service for the Colac Lawn Cemetery.
Please see www.quinnfunerals.com.au for live-streaming details.

QUINN FUNERALS
AT WESLEY PLACE
COLAC 5231 2052
www.quinnfunerals.com.au

RODGERS -
The funeral of Mr Stanley Rath Rodgers will be held at St. Mary's Catholic Church, Gellibrand Street, Colac (TOMORROW) Thursday, November 23, 2023 with Prayers commencing at 10.30 am.
In accordance with Stan's wishes a private cremation will be held.
Please see www.quinnfunerals.com.au for live streaming details.

QUINN FUNERALS
AT WESLEY PLACE
COLAC 5231 2052
www.quinnfunerals.com.au

IN MEMORIAM

BOULTON -
Jodie Nicole.
21.11.2022.
One year has passed.
A silent thought,
A single tear.
Love you heaps.
- Mum.

FOR SALE

BALLARAT CHOOKS - Colac, Winchelsea and Inverleigh areas. Delivery date: November 29. Pullets/ chooks. Hyline Brown. Sexed and vaccinated. Please phone or text Kelvin on 0400 559 559.

MEETINGS

Apex Pre-School
AGM
We are delighted to welcome all existing and new parents and guardians to our 2023/2024 Annual General Meeting.
Date: Thursday, November 23
Location: Babil
Finger food provided
We look forward to seeing you all there

WANTED

MILK VATS
ANY reasonable condition considered, paying between $150 to $1000. Phone Telly Katsaros 0427 368 261.

GARAGE SALES

THURSDAY, November 23 and Friday, November 24, 4 - 7.30pm at 129 Aireys St, Elliminyt. Everything from fence posts to formal wear.

MEETINGS

COLAC AREA HEALTH
ANNUAL GENERAL MEETING
COLAC AREA Health

Notice is hereby given that the 2023 Annual General Meeting
will be held at
Colac Area Health
Conference Room,
2-28 Connor Street, Colac
on
Wednesday 6 December at 2pm

Members of the public are invited to attend.
Limited seating.
RSVP by Friday, 1 December to communications@cah.vic.gov.au

A recording will be available following the meeting on the Colac Area Health website

Fiona Brew, Chief Executive

"Quality Care Close to Home".

MEETINGS

Colac Motorcycle Club Inc
AGM
Wednesday, December 6
6.00pm
at Culture Cafe

COLAC & DISTRICT FOOTBALL UMPIRES ASSOCIATION
AGM
WEDNESDAY, NOVEMBER 29
7.30pm
at LAKE OVAL ROOMS
ALL WELCOME
Enquiries R. Adams 0410 407 032

PUBLIC NOTICE

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

The public can view the Environment Plan and associated documents on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) website by visiting https://consultation.nopsema.gov.au

About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

The proposed Otway Exploration Drilling Program involves seabed surveys at up to a maximum of nine locations, and drilling up to a maximum of six exploration wells in water depths ranging from 53 m to 500 m. The activity is scheduled to commence no earlier than 1st of April 2024 and will be completed no later than 31st of December 2028, with the exact timing dependent on the acceptance of the Environment Plan and the availability of a mobile offshore drilling unit.

ConocoPhillips

CMM30604CP

Death Notices

DALEY David

Formerly of Mt Ousley and Greenhills Aged Care. Founder of Daley & Co Chartered Accountants.

David passed away on Saturday 18 November 2023, aged 87 years with his daughters by his side.
Beloved husband of Rosemary (dec.). Loved father of Alison & Tim Manton, and Philippa & Michael Grasso. Poppy to David & Clare, Liam, & Georgina. Brother to Kerry & John Hiscocks.

Heartfelt thanks to the dedicated staff at Greenhills Aged Care and the diligent & caring nurses at Wollongong hospital. Special thanks also to Janet from Dr Ramakrishna's practice.

David will be farewelled at a private ceremony as was his wish.

Deaths & Funerals

BOUSFIELD
Dave
of Albion Park Rail

Passed away peacefully on Saturday, 18th November 2023. Much loved partner of Lorraine. Dearly loved father of Mick, Kerrie, and Emma and father-in-law of Lynette. Cherished Pop of all his grandchildren. Dave will be sadly missed by his loving family and many dear friends.

Aged 77 years
Forever in our Hearts

Relatives and friends are invited to attend Dave's funeral service, to be held at **H Parsons Funeral Home, 10 Woolworths Avenue, Warilla** on **Friday, 24th November 2023** at **12pm.**

FUNERAL DIRECTORS H.PARSONS (02) 4296 7834 WARILLA

DICKENSON
Peter 'Dicko'
of Woonona

Passed away peacefully on Sunday 19th November 2023. Beloved husband of Rosa. Dearly loved father and father-in-law of Craig and Stephanie, Leah and Murray, Nicole and Troy. Loved Poppy of Mason, Brodie, Carly, Abbi, Lara. Loved brother of Gary (dec), David, and Jan. Dicko will be sadly missed by his loving family and many dear friends.

Aged 81 Years
Our memories of you
will be treasured forever

Relatives and friends are invited to attend a funeral service for Dicko to be held at **H Parsons Funeral Home, 34 Belmore Street, Wollongong** on **Friday 24th November 2023** at **2.30pm.**

For those who are unable to attend you are invited to view Dicko's service via a link found on funeralannouncement.com.au

FUNERAL DIRECTORS H.PARSONS (02) 4228 9622 WOLLONGONG

IHSCHE
Attaulf 'Atta'
Of Kanahooka

Passed away peacefully on Thursday 16th of November 2023. Beloved son of Freda and Herbert (both dec). Loved brother and brother-in-law of Bodo and Uschi, Sigrun and Henry. Atta will be sadly missed by his loving family and many dear friends.

Aged 89 Years
Rest in Peace
Forever in our hearts

Relatives and friends are invited to Atta's funeral service to be held at **H.Parsons Funeral Home, 34 Belmore St Wollongong on Friday 24th of November 2023** at **12pm.**

FUNERAL DIRECTORS H.PARSONS (02) 4228 9622 WOLLONGONG



Deaths & Funerals

MADASCHI
Paolo

Passed away peacefully with loving family by his side on November 17th 2023, of Berkeley. Beloved Husband of Maria. Loving Papa of Carlo & Gail, Gianni & Mandy, Lino & Alison. Adored Nonno to Daniel, Benjamin, Kimberley, Zoe, Holly, Lucas, Annalise and Bisnonno to Jasper, Tahnee, Kaylee, Jorgia, Landon, Lakyn, Mia, Levi and Ruby. Loved Brother of Beppina (dec), Maria, Elsa and Emilia (dec). Paolo will be dearly missed by all of his family and friends both here and in Italy.

Aged 92 Years
Riposa In Pace

Relatives and friends are invited to attend a Mass of Christian Burial to be offered at the **Sacred Heart Catholic Church, 28 Stewart Street, Wollongong** on **Friday November 24th 2023** commencing at **1pm**. At conclusion of the Mass, the funeral will proceed to Lakeside Memorial Park, Kanahooka Road, Dapto where Paolo will be laid to rest.

Hansen & Cole Funerals
Kembla Grange 02 4272 4900

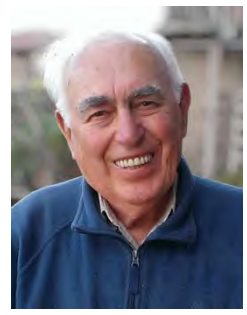
McQUILLAN
Edward (Joe)
of Dapto, formerly of Corrimal

Passed away on Friday, 17th November 2023. Dearly loved father and father-in-law of Carmen and David. Loved brother and brother-in-law of Marie, Helen and Eddy. Joe will be sadly missed by his loving family and many dear friends.

Aged 88Years
In God's Care

Requiem Mass for the repose of Joe's soul will be celebrated at **St John The Evangelist Catholic Church, 24 Jerematta Street, Dapto** on **Friday, 24 November 2023 at 11am**

wollongong cityfunerals 02 4261 4488 DAPTO



MONTECCHI
Alberto
of Lake Heights

Passed away peacefully surrounded by loving family on Friday, 17th November 2023. Beloved husband of Angela (dec). Dearly loved father and father-in-law of Maurizio and Tracey, Maria and Joseph, Marinella and David. Much loved Nonno of Ethan, Julia, Daniel, Ashleigh and their partners. Loved brother of Giancarlo (dec), and Lanfranco. Alberto will be sadly missed by his loving family and many dear friends here and in Italy.

Aged 96 Years
Now reunited with Angela

Relatives and friends are kindly invited to attend Alberto's funeral service to be held at **St Francis of Assisi Catholic Church**, **1 Bruce Road Warrawong** on **Monday**, **27th November 2023** at **11am**.

Rankins Funerals 02 4276 1000 WARRAWONG

ROBERTS, Norma Helen
Late of Albion Park Rail

Much loved wife of Bob (dec).
Adored mum of Kim, Tracey & Warren, Bobby & Maureen.
Absolutely cherished Nan, Nan Nan & Nan Nan Nan to all of her grandchildren, great grandchildren & great great grandchildren.
Loved family member and friend to all.

Aged 87 years
"Love you heaps"

Norma's funeral service will be held on **Monday 27 th November 2023 at 2 .00pm at Hansen & Cole Funerals, 634 Northcliffe Dr, Kembla Grange**.
In lieu of flowers, please donate on-line to Illawarra Convoy.
Please wear a splash of orange to your outfit.

WHITE LADY FUNERALS
Bulli 02 4285 9449

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Public Notices

vodafone OPTUS

PROPOSED 5G UPGRADE TO EXISTING MOBILE PHONE BASE STATION

Address: Monopole - 131 Greenwell Point Rd, Worrigee 2540 (1//DP1129891)
Reference: S8522 Worrigee

1. The proposed works include the addition of new 4G & 5G equipment and associated works including the replacement of the existing headframe; the replacement of 3 existing 4G antennas (less than 2.8m long) with 6 new antennas mounted on the new headframe; the replacement of the existing remote radio units (RRUs) with 24 new RRUs; and ancillary equipment including but not limited to GPS antenna, mast head amplifiers, deplixers, combiners, antenna mounts, cable trays, fibre and electrical cabling necessary for the operation or proper functioning of the low-impact facility.
2. Optus & Vodafone regards the proposed installation as a Low-impact Facility under the *Telecommunications (Low-impact Facilities) Determination 2018* based on the description above.
3. The proposed infrastructure will comply with the ACMA EME regulatory arrangements. An EME Report and further information can be obtained at www.rfnsa.com.au/2540016.
4. In accordance with Section 7 of C564:2020 Mobile Phone Base Station Deployment Code, we invite you to provide feedback about the proposal. Further information and/or comments should be directed to: Reinier Hanekom (Plan Consult Town Planning), 07 5430 6632, Suit 6-10, 28 Eenie Crk Road, Noosaville, 4566 or info@planconsult.com.au by **5 pm on 08/12/23**.

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

ConocoPhillips Australia is inviting public comment on the Otway Exploration Drilling Program Environment Plan. The public comment period will run for 30 days between 16 November and 18 December 2023.

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About the proposed activity: ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters of the Otway Basin, 19 km offshore of Victoria and 28 km offshore of King Island, Tasmania.

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ConocoPhillips

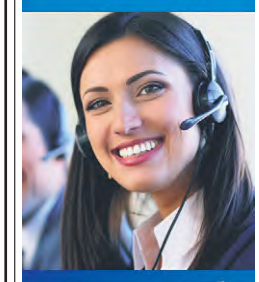
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Barbara."

Public Notices

Rusty, but ready to play



Rusty Falcon on stage for FOKI 2023. The band is set to rehearse in preparation for next year's musical event. Picture: MICHAEL LASKEY

CAN you mix milk and music? For a long time, it was the daily routine for Troy Smith.

The retired dairy farmer spent his time for decades between cows, strumming on his guitar and writing songs.

After decades of living on King Island, home is now an hour from Launceston. Although the real home will always be this little island in Bass Strait.

"It's always there. It's just so great to always have the island there to wander back to and we spend a lot of time on holidays and rehearsing for FOKI and doing this and doing that. So yeah, it's great," says Smith.

After years of playing with cover bands and during the last decade playing the rhythm guitar with local band 40 Degrees South, Troy decided to start his Rusty Falcon band, together with drummer Tim Leo and bass player Jarred Perryman.

It took a little while for the locals to appreciate the band's original songs, but after a while the toes started tapping and punters hit the dance floor.

"If you can remind people that they're out for a good time and if you've got a bit of a beat to your music and the songs stand up, then they will eventually come around.

"But it takes a while to bludgeon those songs into people's subconscious. You know, we're not a top 40 band.

"You're not hearing our songs on the radio, that's for sure," says the retired farmer.

People ask if the Rusty Falcon band is a rock band.

"I've given up trying to categorise ourselves," Smith says, "with the addition of Jarred and Tim, we took things up a notch and lately, we added some more blues in there without it being a blues rock band.

"Our music is a mixture of styles."

When Smith was living on King Island the band used to practice regularly, up to three times a week.

But with his move, this has changed.

"We got together in October for the first time since FOKI 23 in February. I forgot a few lyrics, and there was the odd mistake here and there, but after one session, we were pretty well on the money again. And so, it's just a matter of tightening it up.

"So, it was probably not as tight as what it was just before I left the island, because we did put all that work in. And unfortunately, due to Covid and a few other things, we didn't get to play enough gigs, and we just felt we were getting a real good momentum."

In early December, the band will be back together again, with follow-up rehearsing set in January.

"That should give us enough time to hit the stage again in February for FOKI 2024," says Smith.

FOKI is the home turf for the Rusty Falcon frontman. "Yes, I was there, right from the beginning. We just had a vision and enthusiasm.

The first FOKI was about picking King Island up. The focus was to help everyone get up and going in the wake of the abattoir closure, so it didn't matter so much that it was completely a bit of a mess and whatever.

"But we just did our best, and we learned a lot from it and moved on from there. It's just wonderful, and it's just turned into a great professional music show and annual island calendar event.

"It's a real credit to the committee and everybody that has just stuck with it over all these years."

Drilling comments sought

THE proposed ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan (EP) is now available for public comment via the NOPSEMA website https://consultation.nopsema.gov.au

The public is invited to read the EP and associated documents and submit comments to NOPSEMA during the public comment period which will run until December 18.

The public comment period provides an opportunity for community members to raise issues about environmental management matters that have not yet been considered in the environment plan for the proposed activity.

To read more about the public comment period and how to make an effective comment visit the NOPSEMA website and read *Have your say on environmental aspects of offshore energy activities*.

Water woes continue

CURRIE continued to have water supply disruption throughout the weekend and into this week.

As we enter bushfire season, residents have also raised concerns around water supply to both Grassy and Currie in the event the villages are threatened and are seeking confidence from TasWater that this would not become an issue.

Airlocks, faulty valves, and mains connection pipe leaks have all been suggested as the ongoing waterworks to fix the supply.

The issues this week appear to vary from property to property.

Since last week's disruption and fixes, the household disruptions range from no issues through to 'just a trickle' and low pressure to no supply.

TasWater has been asked if residents can expect the problems to be completely solved or whether this could be an ongoing problem with Currie's old pipe network.

PDA
SURVEYORS, ENGINEERS & PLANNERS
SURVEYORS REGULARLY VISITING KING ISLAND
For all enquiries, please contact:
Adrian Eberhardt, Registered Land Surveyor
6431 4400 or **0447 544 360**
pda.bne@pda.com.au

Nutrien Livestock
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Friday 24th November at 12:30pm
Nutrien Saleyards, King Island
100 Cattle already advised
Further entries invitecd
Contact: Beau Mullin - 0468 576 712
Nutrien Ag Solutions Limited
418 Evandale Road, Western Junction TAS 7212
P: 03 6391 6555 | E: livestocktas@nutrien.com.au
www.NutrienAgSolutions.com.au

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Final Approval: 11am Tuesday

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12597540-JB14-23

General Notices

Public Notices and Event

MILLICENT CANCER SUPPORT GROUP AGM
to be held at the Millicent RSL Hall at 5.30pm on Tuesday 28th November 2023. Meal to follow at the Somerset Hotel. New members are most welcome. Enquires to Lisa 0407 872 587

Network Classifieds
Find it in the
Trades & Services
section of Network Classifieds.
1300 666 808

Public Notices and Event

The management and staff of McBride Operations Pty Ltd at Telopea Downs
would like to thank the CFA and CFS volunteers, neighbours and community members who worked together to defend our property against the fire at Blue Hills on 10th & 11th of November.

12651031-AP47-23

Bordertown Football Club Annual General Meeting
Wed 29th November 7.30 pm
in the clubrooms
Apologies to the Secretary
0407 612 267
or bfc00@bigpond.com

12649692-AA46-23

Find it in the
General Classifieds
section of Network Classifieds.

General Notices

Public Notices and Event

Notice of Public Comment

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ConocoPhillips

CMM306605CP

Public Notices and Event

PUBLIC NOTICE

beach

Community Information Webinars

To continue meeting natural gas demand from homes, business and industry, Beach Energy has commenced planning and consultation for the Offshore Gas Victoria (OGV) Project.

The webinars will enable the local community to learn more about the OGV Project, which is considering a range of activity in the Commonwealth waters across several phases. These webinars will focus on drilling and plug and abandonment activities.

We are committed to working with our local communities, ensuring people are informed of our projects and can provide feedback. Stakeholder consultation is an important part of our planning as it helps identify any local concerns and ensures management of potential impacts.

If you would like to ask our technical staff questions about our projects, or provide feedback, please register your interest in joining one or more of the webinars by emailing community@beachenergy.com.au.

Wednesday 22 November 2023, 5pm to 6pm AEDT
Drilling and Plug and Abandonment activities explained, including Q & A

Wednesday 29 November 2023, 12pm to 12.30pm AEDT
Drilling Q & A with Beach technical team

Thursday 30 November 2023, 1.30pm – 2pm AEDT
Plug and Abandonment Q & A with Beach technical team

We welcome your questions, please contact:

P 1800 797 011
E community@beachenergy.com.au
engage.beachenergy.com.au/

READ MORE

12650578-JC47-23

GD23-0274

General Classifieds

Adult Services

JEYDA New in Town. Lovely Massage. Phone 0402 585 758

OLIVIA
25 years old
Korean
Passionate GFE
Friendly
0478 756 919

Garage Sales

Mt Gambier, Griffiths St,
Sat 25th November
9am-1pm
Small freezer, gardening equipment, large floor mat, decorative items, clothes,
GRAB A BARGAIN
Ballons will be out on the day.

12651330-JB47-23

Find it in the
Celebrations
section of Network Classifieds.

Farm Services

HAY TARPS UV STABLE
Strong. Economical. Waterproof. In Stock.
1300 656 211 all hrs.
www.abctarps.com.au

Motoring

Network Classifieds
1300 666 808

Employment

Positions Vacant

Bordertown Stone Supplies
Plant Operator / Truck Driver
- HR/HC Licence
- Loader Licence
- OH&S White Card

Work in local area
Above award wages offered to the right person.
0438 924 322

12642110-ET42-23

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1300 666 808

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Welcome to Australia's leading network of trusted local classifieds

To place business advertising
13 11 13 or **buysearchsell.com.au**

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Trades & Services

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★All internal/external ★Pensioner discounts
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Jobs

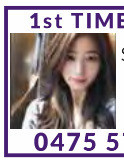
Manufacturing, Transport & Logistics

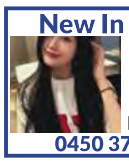
Loader/Excavator Operator

For unloading Log Trucks and loading Rail Wagons.
Location: Parattah Rail Yard
Call Mobile
Neville 0429 010 156
(Business Hours Only)

Adults

Adult & Escort Services

1st TIME IN TAS

Yuki 22yo
Slim Friendly, Sweet, Nice
Pretty
No Rush
0475 572 610

New In Town

Fuji Mix
20yo, Hot
Friendly
Good Fun
In / Out Calls
0450 379 828

★0406 365 568★
ASIAN Pretty, Hot Sexy body Sweet, Sz8, At Moonah

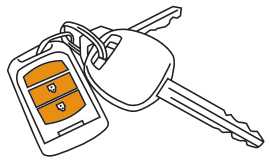
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Adult Relaxation

★ 0406 058 338 ★
Sweet, Friendly, Relaxing Gentle Massage. No Text

HAPPY MASSAGE
19/20yo, Asian, Slim, Busty, Friendly **0457 609 552**

Advertise your services
Call 13 11 13
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V1 - MEREU120MA

Notices

Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

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ConocoPhillips

CMM30597CP

THE ADMINISTRATION AND PROBATE ACT 1935 NOTICE FOR CLAIMS

In the Estate of MONICA MARIA CAMPBELL (ALSO KNOWN AS MONIKA MARIA CAMPBELL) late of Unit 2, 231 Hobart Road, Kings Meadows in Tasmania who died on 9 January 2023 at Norwood in Tasmania.

NOTICE is hereby given that all creditors, next of kin and other persons having claims in respect of the property or the Estate of the abovenamed deceased, are required by the Executors, GORDON RALPH PAUL and ROBERT ANDREW CASH, C/- Shields Heritage, 53 Cameron Street, Launceston in Tasmania, to send particulars in writing to The Registrar, Probate Registry, Supreme Court of Tasmania, Salamanca Place, Hobart in Tasmania on or before 27 December, 2023 after which date the Executors may distribute the assets having regard only to the claims of which they then have notice.

Dated this 22nd day of November 2023

SHIELDS HERITAGE
53 Cameron Street, Launceston
Solicitors for the Estate

(Ref: 231218)

buy search sell .com.au

HUON VALLEY COUNCIL

APPLICATIONS FOR PERMIT

Notice is given that the following applications have been made for planning permits:

PROPOSAL	SITE
Single dwelling and demolition of existing dwelling (DA-44/2023)	158 Kingfish Beach Road, Southport (CT-59724/3)
Change of use from studio outbuilding (residential) to restaurant (food services), new amenities block, onsite wastewater management, stormwater management, carpark, vehicle access upgrade, retrospective driveway works and pedestrian bridge over waterway, and demolition of an outbuilding, at 6636 Channel Highway and 13 Cliffords Road, Deep Bay (DA-111/2023)	6636 Channel Highway, Deep Bay (CT-127623/1)
Dwelling, carport and shed outbuildings, and associated works (DA-204/2023)	19 Flakemores Road, Eggs and Bacon Bay (CT-30982/8)
Single dwelling, garage and driveway (DA-243/2023)	111 Kent Beach Road, Dover (CT-184482/54)
Single dwelling and associated access (DA-247/2023)	101 Kent Beach Road, Dover (CT-184482/49)

The applications may be viewed at the Council's Customer Service Centre, 40 Main Street, Huonville, during normal office hours (8:20am - 5:00pm Monday to Friday) and on Council's website: www.huonvalley.tas.gov.au

Representations on the applications may be made to the General Manager in writing either by:

Post: **PO Box 210, Huonville, 7109**
Email: **hvc@huonvalley.tas.gov.au**
Fax: **(03) 6264 0399**
Online: **www.huonvalley.tas.gov.au**

All representations must include the author's full name, contact number and postal address and be received by 6 December 2023.

Lachlan Kranz
Acting General Manager

Kingborough

APPLICATIONS FOR PLANNING APPROVAL

Pursuant to s57(3) of the *Land Use Planning and Approvals Act 1993*, it is hereby notified that the following Planning Permit applications are on public notice:

SITE	PROPOSAL
17 Apolline Drive, Kingston DA-2023-340	Two multiple dwellings
25 Incana Road, Margate DA-2023-371	Extension to dwelling and retrospective extension to outbuilding (carport)
88 Redwood Road, Kingston DA-2023-368	Extension to dwelling

The applications and concept plans may be viewed on the Kingborough Council website, www.kingborough.tas.gov.au. For information or assistance please call (03) 6211 8200.

Any representation from interested persons must be lodged in writing with the General Manager, 15 Channel Highway, Kingston 7050 or by email to kc@kingborough.tas.gov.au, and must be received by 5 December 2023.

Gary Arnold
General Manager

kingborough.tas.gov.au

GLENORCHY CITY COUNCIL

APPLICATIONS FOR PERMIT

Notice is given of the following planning applications:

94 TOLOSA STREET, GLENORCHY
PLN-23-126 Outbuilding (Residential)

FAULKNERS ROAD, GLENLUSK (127900/1)
PLN-23-239 Single Dwelling and Outbuilding

350-360 MAIN ROAD, GLENORCHY
PLN-23-291 External alterations and Quench pipe (Business and Professional Services)

Plans and documents may be viewed in person at Council's offices at 374 Main Road, Glenorchy TAS 7010 during office hours. Plans are available online at www.gcc.tas.gov.au, until 5/12/2023.

Representations may be made by letter addressed to the General Manager at the address above, or by email to gccmail@gcc.tas.gov.au. Representations must be received no later than 11.59pm on 5/12/2023, or for postal and hand delivered representations, by 5.00pm.

Tony McMullen, **General Manager**

buy search sell .com.au

Connect with Classifieds

Phone: 6492 1177
Email: classifieds@merimbulanewsweekly.com.au

Garage Sales

☐ VISIT ☐ VISITED

48 acacia ponds, Millingandi sat 25th Nov from 8am, Mascot motor mower, a gazibo, motorcycle acessories, Xmas tree & clothing.



General Notices

Pambula & District Community Development Ltd

Seeking Volunteer Board Members

Become part of a forward thinking Board and help reshape the future of community banking in Bega Valley Shire and Bombala area.

Our company has been established for fifteen years to provide support for our communities through banking services and by returning profits to Community groups. Pambula & District Community Development Limited (PDCDL) is a franchisee of Bendigo Bank and operates the locally owned Community Bank branches in Pambula and Bega, as well as a new office in Bombala.

Role and Responsibility:

As a director you will be,

- Motivated, well organised, self-directed and most importantly, community orientated.
- Support and drive the company's strategic direction, goals and objectives to have a real say in the future direction of this dynamic business and its support of our community.

As part of an important process of Board renewal, PDCDL is searching for new Board Directors with relevant **skills and experience in the key areas of Community, Communication, Corporate Governance and Leadership.** PDCDL is in a strong financial position, with a highly skilled volunteer Board and staff.

Send your covering letter and CV, or questions to Graham Stubbs at
Pambulacommunitybank@gmail.com

Bendigo Community Bank
Pambula, Bega & Bombala

Positions Vacant

MERIMBULA RSL CLUB - PERM PART BAR SUPERVISOR

Essential*RSA&RCG

Preferred*Experience in running a bar

*Supervising staff

Must be able to work days/nights and weekends

To apply please email your resume and cover letter to emmai@merimbularsl.com.au

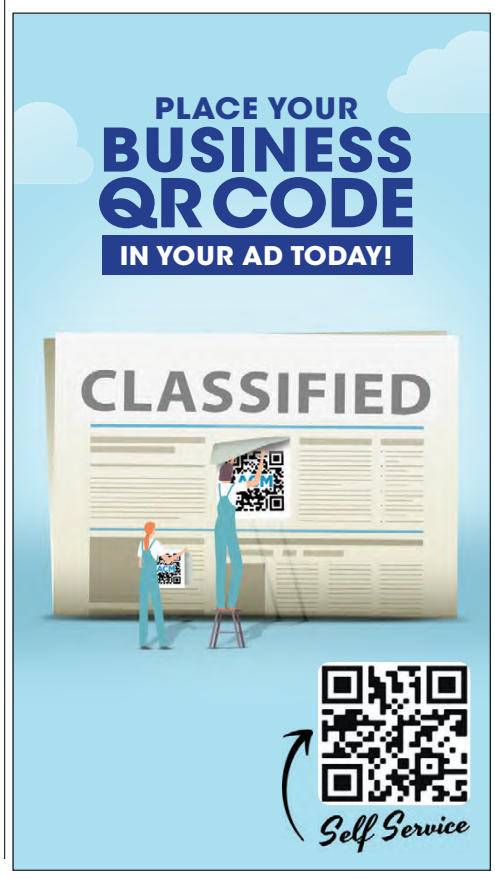
Applications close Wednesday 29th November 2023 at 5pm.

(Only short listed applicants will be contacted)

Area: MERIMBULA NSW 2548

Ph: 0264951502

Email: emmai@merimbularsl.com.au



Positions Vacant

Current Vacancies Bega NSW

Production Manager - Retail

We are looking for a strong people leader to join our Lagoon St team in the Bega Valley and manage out Retail Production (Stringers and portions). If you have previous leadership experience in manufacturing and FMCG, this could be the role for you!

Please go to the website to access further information about this vacancy and to apply.

www.begacheese.com.au

Bega GROUP
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Trades & Services



Public Notices

Notice of Public Comment

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ConocoPhillips

CMM30607CP

Garage, Garage Doors, Carports

B&D Accredited Dealer
Eden, Merimbula, Bega area
Supply and install roller doors, sectional doors, door openers, repairs & maintenance
Phone UP SHE GOES 6452 3008
Email: rolladoors@upshegoes.com.au



b&d Accredited

AW3538002

Tree Services



Glass Work







Classifieds ONLINE PLACEMENT

FOR HIRE

SKIPBIN, 1 to 18 M3 bins, waste removal, commercial, residential. Contact Kelcar 0417 018 874.

FOR SALE

CARAVAN, Grand Salute Royal Guard Series II, 22', off-road, all mod cons, one owner, many extras / spare parts, excellent condition; $79,950. 0427 112 806. Email for photos: gasmark@bigpond.com

CHRISTMAS TREES
Melobeda
Farm Sales:
292 Bothe's Rd,
Gorae West
From Sat, 25th Nov,
Sat/Sun
10am - 6pm
Town Sales:
Masonic Lodge
Carpark
(Opposite McDonald's)
From Thurs, 30th Nov
Thurs/Fri 1-6pm &
Sat 9am-1pm
Visit FB/Insta for more information

F250 fuel tank, 120 litres; $100 o.n.o. Phone 0419 867 633.

FREE - Upright piano, old, tuned, good condition, pick up only. 0456 596 078.

FULL size push bike; $350. 0418 549 522.

JACOBEAN couch and 2 chairs, very good condition; $100. Phone 0409 372 731.

NUMBER of white single flat sheets, some Actil, v.g.c.; $8 each. Phone 0419 867 633.

WEBER Q BBQ, all attachments, with cover, never used; $450. 0416 070 829.

GARAGE SALE

46 Aberdeen St, Fri-Sat, 8am. Lots of bargains. Jayco caravan, pool table and extras, Sidchrome tools, household goods.

LOST

BLACK swimmer's watch, lost at Nun's Beach. Please phone 0418 527 267.

WORK WANTED

ANTENNA installations and service, including TV wall mounting, TV points and tuning. Call Peter Logan 0419 368 711.

WORK WANTED

SNC TreeTech
Certified Arborists/Climbers

- Tree Pruning & Removal
- Storm Damage
- Stump Removal
- Mulching
- Tight Access Specialist
- Fully Accredited & Insured
- First Rate Clean-Up

OLB2849423

No obligation Free Quote
Shaun Clark
0408 087 901
Your local qualified Arborist

CONCRETING, all types. B.M. Jennings Concreting, phone Brent 0424 934 721.

TREES TOP TECHNICIANS. Arborist. Free quotes and advice. PORTLAND 0422 228 766.

MEETINGS

Portland RSL Sub Branch Inc
A.G.M.
Tuesday, 5th Dec
7pm
IN THE ROOMS
21 Percy St
All welcome

GENERAL

Lions Club of Heywood Inc

CLEARANCE SALE

ANOTHER HEYWOOD LIONS CLUB PROJECT

Sunday, 26th November - 10:30am

A/c. Jeannie and the Late Bob Crooks

3907 Princes Highway Lyons 20km N of Heywood

Aluminium Fishing Boat, Rods, Tools, Press Drills, Metal Lathe, Welder, Power Tools, Shearing Grinder, Steel Shelving, Steel Work Benches, Mobile Overhead Gantry, Honda Generator, Hydraulic Press, Antique Avery Platform Scales, Sunshine Farm Gates, Plus a large quantity of sundries and Collectables.

Auctioneer - Bruce Lowenthall

Refreshments supplied by Heywood Lions.

OLK2148523

Enquiries: Gavin 0473 238 734, Rex 0448 841 672

HEALTH & BEAUTY

HEALING Energies massage clinic, remedial, relaxation, pregnancy massage, Indian head massage, reflexology, ear candeling. Phone Paula 0429 487 342.

DEATH

CARR - Frank William "Bill". Passed away peacefully on 15/11/2023 aged 78 years. Loved Dad and Father-in-Law of Nicki and Mark. Cherished Poppy of Lexie and Ben.
"Forever in our hearts"

PARKER - Thomas Edward, passed away peacefully at Harbour-side Lodge, Portland on 20/11/23, aged 97 years.
Loving husband of Daisy; father of Douglass and Jeanette; father-in-law of Joy; Dear pa Tom to his grandchildren and great grandchildren.
Forever remembered.

PARKER - Thomas.
Loving husband of Daisy.
72 wonderful years of marriage.
At peace.

PARKER - Thomas Edward.
Much loved father of Doug and Joy; Pa Tom of Paul and Christelle, Nicole and Shane, and Scott; Great Pa of Zavier, Levi, Brocklan, Ceejay and Ducati.
Remembered always, so sadly missed.



DEATH

PARKER - Thomas.
Adored father of Jeanette and grand-father of Jeremy and Celeste; loved great pa of Jack, Noah and Maya.
Forever in our hearts.

SUTHERLAND - Stuart "Stewy", passed away on 14/11/2023. Loved Dad of Reece and Rhianne. Loved Pop of Aria, Mia, Carter and Levi.
"Higher Than Heaven"

FUNERAL

CARR - The Funeral Service for the late FRANK WILLIAM "BILL" CARR is to be held at the GRAVESIDE, Portland South Cemetery, Cape Nelson Road, Portland on TUESDAY the 28th NOVEMBER commencing at 2.00pm.

PORTLAND FUNERAL SERVICES
140 Percy Street,
Portland, 3305
Phone (03) 5523 2078

SUTHERLAND - The Funeral Service for the late STUART "STEWY" SUTHERLAND is to be held at THE ROYAL HOTEL, Percy Street, Portland on FRIDAY, the 24th NOVEMBER commencing at 12PM.

PRIVATELY CREMATED

PORTLAND FUNERAL SERVICES
140 Percy Street,
Portland, 3305
Phone (03) 5523 2078

EMPLOYMENT

Robertson CIVIL SERVICES

CAPITAL WORKS/ PROCUREMENT CO-ORDINATOR

Robertson Civil Services is a local family-owned company working as an embedded contractor to Portland Aluminium.

We are currently looking for expressions of interest for a Capital Works/Procurement Co-ordinator

The capital works/procurement co-ordinator will be responsible for;

- Provide estimates in line with SOWs and specifications.
- Engage and liaise with relevant site and external stakeholders.
- Source and secure the best cost-effective sub-contractor and material supply chains.
- Control project planning and schedules from inception to completion.
- Work with relevant parties to complete projects, ensuring compliance with permits, approvals, and safety plans.
- Complete site access approvals for external sub-contractors.
- Work closely with site teams and external companies to minimise disruptions to daily operations.
- Have a safety and can-do problem-solving attitude.

For more information on this role you can contact Jason Mitchell on 0408 104 478

Resumes can be forwarded to;
E: tessa.compton@rcsportland.com.au
M: PO Box 850, Portland VIC 3305

Applications close COB 1st December 2023

OLK0344323

PUBLIC NOTICE

beach

Community Information Webinars

To continue meeting natural gas demand from homes, business and industry, Beach Energy has commenced planning and consultation for the Offshore Gas Victoria (OGV) Project.

The webinars will enable the local community to learn more about the OGV Project, which is considering a range of activity in the Commonwealth waters across several phases. These webinars will focus on drilling and plug and abandonment activities.

We are committed to working with our local communities, ensuring people are informed of our projects and can provide feedback. Stakeholder consultation is an important part of our planning as it helps identify any local concerns and ensures management of potential impacts.

If you would like to ask our technical staff questions about our projects, or provide feedback, please register your interest in joining one or more of the webinars by emailing community@beachenergy.com.au.

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E community@beachenergy.com.au
engage.beachenergy.com.au/

READ MORE

GD23-0274

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ConocoPhillips

CAN130603CP

Noticeboard

NSW Electoral Commission

Application to amend the Register of Parties

The Electoral Commissioner for NSW has received the following application from *The Greens NSW* to amend the Register of Parties under the provisions of the *Electoral Act 2017*:

- Amend the party's written constitution
- Update the registered party information to include the names of the officers or members of the party responsible for ensuring the party complies with the *Electoral Act 2017* and the *Electoral Funding Act 2018*

The other particulars (see below) in the Register of Parties relating to *The Greens NSW* remain unchanged:

Registered party name: **The Greens NSW**

Registered abbreviation: **The Greens**

Registered officer: **Seamus Lee**
32/316 Pacific Highway
LANE COVE NSW 2066

Deputy registered officer: **Christopher Henry Maltby**
55 Edward Street
BONDI BEACH NSW 2026

Party secretary: **Debbie Lorraine Gibson**
19 Jenkins Street
DOUGLAS PARK NSW 2569

Headquarters address: **19A/1 Hordern Place**
CAMPERDOWN NSW 2050

All written objections to the amendments will be considered by the Electoral Commissioner for NSW.

Objections must be signed, include the name and address of the person(s) or organisation(s) making the objection, and be lodged with the Electoral Commissioner for NSW by post (GPO Box 4046, SYDNEY NSW 2001) or email to fdc@elections.nsw.gov.au no later than 14 days after today's date.

The application may be inspected by making a request in writing to fdc@elections.nsw.gov.au

Authorised by John Schmidt, Electoral Commissioner for NSW

For more information contact 1300 022 011.

SB1280

Transport for NSW

Traffic Notice – Road Closures and Special Event Clearways
ISPS HANDA Australian Golf Open – Monday 27 November to Sunday 3 December

Special event clearways will be in effect on the following dates and locations for ISPS HANDA Australian Golf Open.

Rosebery: Clearways will be in effect from 5am to 7pm daily, Thursday 30 November to Sunday 3 December on sections of Bannerman Crescent and Trevilyan Avenue. Some clearways will be in effect until 8pm daily on Bannerman Crescent.

Kensington: Clearways will be in effect from 8am to 8pm daily, Thursday 30 November to Sunday 3 December on Tunstall Avenue (eastern side) between Tedwin Avenue and Day Avenue.

Eastlakes: Clearways will be in effect from 5am to 8pm daily, Thursday 30 November to Friday 1 December on sections of King Street and Vernon Avenue. Local roads will be closed from 5.30am to 5.30pm each day on Thursday 30 November and Friday 1 December including sections of Vernon Avenue, O'Connor Street and King Street.

Clearways are strict no-parking zones for all vehicle types and apply even for local residents or TfNSW Mobility Scheme Permit holders. Check signs carefully as vehicles left in signposted clearways will be towed and a fee applies. If your vehicle is towed call 132 701 to find its new location. **Note:** this information is correct at time of publication but may change at late notice, always check signage for the most up-to-date information.

For more detailed information visit: livetraffic.com

Transport for NSW

Compulsory Acquisition of Land – *Transport Administration Act 1988*

Attention is invited to the notice published in Government Gazette No 520 of Friday, 10 November 2023 reference [n2023-2051] regarding the compulsory acquisition of land for light rail purposes at Parramatta in the City of Parramatta Council area and said to be in the possession of JKN Para Pty Ltd (registered proprietor), Navy Aspiration Opportunity VI Limited, Grand Circle Opportunity IX Limited, Mega Path Opportunity III Limited, Ever Luck Opportunity III Limited, Timely Opportunity III Limited, Flash Point Opportunity III Limited and Avignon Pont Development IX Limited (mortgagees) and City of Parramatta Council and Chief Commissioner of State Revenue (caveators).

(TfNSW Papers: SF2022/187807)

M Knibb
Statutory Land Transactions Manager
Transport for NSW

Contact: For full details call Transport for NSW on **(02) 9983 3419**.

SB1283

Ministry of Health

Private Health Facilities Act 2007

Applications have been received from Sana Private Pty Ltd for transfer of licence for Wesley Hospital Ashfield at 91 Milton Street, Ashfield NSW 2131 and for Wesley Hospital Kogarah at 7 Blake Street, Kogarah NSW 2217.

The Directors are Michael Vincent CARISTO, Georgina Frances BLUNDELL, James Tobias HALL and the Secretary is Benjamin Howard KENNEDY.

Any person wishing to make representations should do so in writing by 6 December 2023.

The Secretary, NSW Health
NSW Ministry of Health
Locked Bag 2030
St Leonards NSW 1590

SB1292

LP1757

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ConocoPhillips

CMM30599CP

Notice of Intention to use the name Temple for the Divine ☐ ater Bearer
Date of Notice:
22nd November 2023
Notice of Intent to create security interest in the title Temple for the Divine ☐ ater Bearer for use of name and mark. If there is an existing usage of this name please inform us of your objections and provide proof of claim in writing and address it to PO BO☐ 7210, Bondi Beach, NS☐ 2026.

Building Materials and Suppliers

☐☐☐ ☐ ☐☐☐☐☐ ☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐
St. Ives. C☐D Demolition ☐ aste, 50☐ disc for sorted demolition timber. Concrete and brick recycling, disc. for large quantities. Recycled products. ☐ ☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐☐ ☐☐☐☐

LP1725

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Public Notices

Notice of Public Comment

ConocoPhillips Australia Otway Exploration Drilling Program Environment Plan

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ConocoPhillips

CMM30607CP



Tenders

School Canteen Licence

Tenders are called for the licence of the St Georges Basin Public School canteen for the school year commencing 2024 for a term of 3 years with an option to renew for 2 years. Annual school enrolments will be approximately 370. General enquiries and requests for a Tender Information Package should be referred to:

Cass Timms
School Administrative Manager
4443 4251 or
stgeorgesb-p.school@det.nsw.edu.au

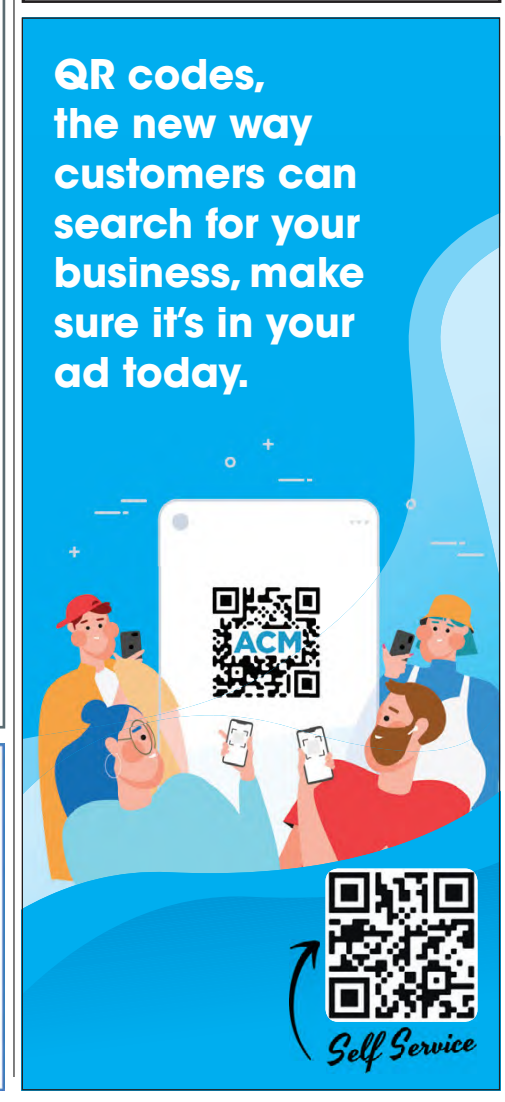
Tenders must be sent electronically and noted in the subject line "Commercial in Confidence - School Canteen Tender" and sent to:

Kathy Rembisz
Principal
stgeorgesb-p.school@det.nsw.edu.au

Tenders close at 3pm on Friday, 1 December 2023.

Mandatory Criteria: All employees must hold a current working with children check.

An onsite inspection will be held on Wednesday 29 November 2023 from 10am-12pm.



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No strike, but AGL 'too slow on emissions'

COLIN PACKHAM

AGL's board of directors will remain in place after shareholders including billionaire Mike Cannon-Brookes spared the company a second strike on Tuesday, though the company's largest shareholder said the nearly 200-year-old company was decarbonising too slowly.

The vote on the company's remuneration report provides a period of stability for AGL, which was embroiled in a bitter takeover battle in 2022 with Mr Cannon-Brookes and Brookfield.

More than 25 per cent of AGL's shareholders rejected the company's remuneration report in 2022, but its chairwoman Patricia McKenzie on Tuesday said the company had avoided a second strike thanks to the votes of large equity owners.

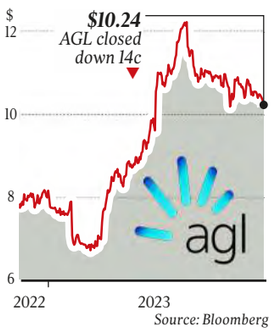
Mr Cannon-Brookes' private investment company, Grok, abstained from the remuneration vote. However, Grok chief executive Jeremy Kwong-Law said the board had set weak climate targets in order to receive bonuses.

"We believe that the targets set under the 'carbon transition metrics' in AGL's 2023 remuneration report incentivise the company to stand still while the rest of the Australian energy market does the work: executives will be rewarded, while AGL, its customers and shareholders, are left behind by inaction," Mr Kwong-Law said in the letter.

"This unambitious attitude reminds us of the 'old AGL' thinking – which was orientated towards watching the transition from the sidelines, instead of leading from the front."

Mr Cannon-Brookes in August described AGL as one of "most toxic companies on the planet".

Grok said AGL secured bonuses for reducing emissions by about 1 per cent a year for the next four years, and driving new renewable generation at about 10 per cent – consistent with the Australian Energy Market Operator's step-change scenario.



Source: Bloomberg

Ms McKenzie said the company was making good progress towards its target of developing 12GW of renewable energy generation and storage by 2035. AGL in 2022 said it would hasten its exit from coal, bowing to pressure from shareholders including Mr Cannon-Brookes.

AGL has said it will close its coal-fired Loy Yang A power station in Victoria in 2035, having previously said it would retire the generator in 2045. AGL says it will shut its Bayswater coal power station between 2030 and 2033.

Earlier this year, AGL said it had entered into a deal with the Victorian government to share the risk of Loy Yang becoming uneconomic before 2035, meaning the coal power station – one of the state's largest emitters – is likely to remain open until the next decade.

Victoria has legislated Australia's most aggressive energy transition policy, aiming to cut emissions by 75-80 per cent by 2035, while bringing forward its net-zero target by five years to 2045.

To achieve this, Victoria will prohibit coal power generation by 2035.

While defending the company's progress, Ms McKenzie said Australia was experiencing difficulties in developing new renewable energy assets.

"We are seeing some challenges, including delays in approvals, cost pressures and some local opposition to new generation and transmission projects," Ms McKenzie said.

Prioritise migrant tradies over students: Brickworks


HOLLIE ADAMS

Brickworks chief executive Lindsay Partridge says more houses must be built

ELI GREENBLAT

The boss of the nation's largest brickmaker and leading housing materials supplier has warned that any review of the country's migration intake needs to prioritise bringing in tradies to work on home construction sites and address Australia's worsening housing crisis.

Brickworks chief executive Lindsay Partridge told The Australian on Tuesday his company was predicting a slowdown in housing construction in 2024 as current projects were completed, but then a building boom into 2025 as a fast-growing population demanded new homes.

In recent days a national debate about migration has begun. Some 600,000 people are expected to settle in Australia this calendar year, and many economists believe this will fuel inflation, lift rents and exacerbate the housing crisis.

In September AMP chief economist Shane Oliver called for annual net migration levels to be more than halved to 200,000 people to allow the country to tackle the acute housing shortage.

Speaking before the Brickworks annual general meeting on Tuesday, where he told shareholders short-term challenges across the industrial property portfolio would see a 10 per cent property valuation decline, Mr Partridge said Australia needed to bring in tradies and skilled workers as a priority.

"There is no use bringing in anybody if they are not a building tradie. You are wasting your time, because where are they going to live?" Mr Partridge said.

"That has been my argument with governments. They need to be focusing on having immigrants that have building trades like we have done in the past so we can build the homes for everybody.

"I understand why the government let the immigration (levels) catch up, and part of that was the students returning, (but) there have been enormous labour shortages ... we need trades, we need skilled people, we don't need tertiary qualified people, we need people who are fitters and turners, electricians, these sorts of people to build these homes."

He said the huge pipeline of federal and state government building works, such as roads, airports and ports, was also pushing up the price of building supplies and making them hard to get.

"It has been made worse by all the public works, shortage of raw materials because the government is sucking it all in for their own projects. You can't get concrete during the day sometimes – you have to get it at night."

In a trading update at the AGM, Mr Partridge said sales at its Australian and US building products business were resilient, while improved margins had resulted in first-quarter earnings exceeding the prior corresponding period. For the first quarter, sales revenue was flat in Australia and slightly higher in North America.

However, he continued to see a decline in new housing approvals, and expected the housing market to slow in Australia in 2024.

"Despite this positive start to the year, order intake is softening and we expect conditions to become more challenging for the remainder of fiscal 2024, as the existing pipeline of work is progressively built out.

"Looking beyond the short-term weakness, Australia appears to be on the cusp of a significant building boom, with record immigration levels exacerbating an already chronic housing undersupply issue."

Mr Partridge said the slowdown in coming months would give Brickworks an opportunity to "sequentially take plants offline to complete maintenance work and manage stock levels", but Bowral operations would continue.

Shares in Brickworks closed 1.9 per cent lower at $25.70.

Big or small, ASIC will pursue them all

Continued from Page 13

"odd" that the regulator's critics attacked it for failing to take action against corporate crime, pointing to the record of hundreds of actions and court judgments.

"I would challenge you to find any other regulator in Australia that runs as many cases as we do, civil and criminal and is as active as we are in court," he said.

ASIC has faced criticism as a Senate economics inquiry led by Liberal Andrew Bragg heard stories of the regulator's failures to act on reports of misconduct.

Senator Bragg, who has slammed ASIC, is preparing to publish a report into the regulator with a number of recommendations to reform the agency.

Mr Longo said he expected to sit down with the economics committee next year to work through the "concerns and issues", but would not be drawn on any proposals to further reform or empower the regulator.

Speaking earlier on Tuesday, ASIC deputy chair Sarah Court said the regulator was "not resourced to investigate all potential breaches of the law".

Ms Court said ASIC made "no apology" for its focus on big business.

"We make careful choices about the matters we take on. We select matters with the broadest possible reach, such that our work will have a deterrent effect well beyond the particular matter we are prosecuting," she said.

"In practice, this means that we inevitably take more civil actions against what might be called the 'big end of town'."

Ms Court said misconduct by large firms "causes the widest consumer and investor detriment".

"And we are bold, in that we are not conservative in the cases we take on. Where we consider there to be harm, or potential harm, we take cases where the outcome is not guaranteed," she said.

On Tuesday Treasurer Jim Chalmers revealed he would soon task ASIC with a number of new priorities under a new statement of expectations for the regulator, the first since 2021.

Former treasurer Josh Frydenberg handed ASIC its last list of tasks, calling on the regulator to support "Australia's economic recovery from the Covid-19 pandemic and work closely with government and Treasury on the implementation of policy reforms and in its exercise of policy-related functions".

> 'We are not conservative in the cases we take on'
>
> **SARAH COURT**
> ASIC DEPUTY CHAIR

But on Tuesday Dr Chalmers said he would ask ASIC to focus on protecting consumers in the "digital sphere", and addressing the risks and capturing the opportunities of the market's transition to net zero.

Former ASIC chair James Shipton, who has previously called for the Albanese government to issue a new statement of expectations, said the new priorities were "urgently needed".

"I encourage oversight bodies like parliamentary committees and ministerial departments to apply a consistent regulatory performance framework benchmarked against the agency's statutory objectives and its statement of expectations," he said.

"A significant fault line in Australia's current regulatory architecture is the absence of meaningful and effective ongoing oversight of critical regulatory agencies, like ASIC."

New Zealand's Financial Markets Authority is given a new statement by the government annually.

Ms Court revealed ASIC's priorities for 2024, warning the regulator would broadly focus on business misconduct, financial services and credit providers, company failures, auditors and liquidators, and technological and operational resilience. Ms Court said ASIC would focus on conduct involving small business.

Sneaker chain Culture Kings now downtrodden

Continued from Page 13

successful opening of the US store.

"As the founder it's my baby, and Tahnee has delivered the Las Vegas store and is beating expectations, but Tahnee and I are entrepreneurial to our core and the public company or holding company role – it's not for me, not my best fit," Mr Beard told The Australian in March.

When the Gold Coast couple sold the business to a.k.a Brands in March 2021 they took half the $600m sale price in a.k.a Brands shares, which later rallied to almost $US15 each, taking their personal wealth to about $700m and ranking the 30-something-year-olds among the wealthiest young individuals in Australia.

However, a sharemarket rout has since seen a.k.a Brands shares sink by more than 90 per cent, cutting the couple's wealth by about $US340m.

Their wealth, based on the 23.3 million a.k.a Brands shares taken as part of the sale deal, has improved recently, with a.k.a Brands shares almost doubling since May.

Meanwhile, Culture Kings is the latest fashion and apparel brand to testify to a downbeat consumer, with Country Road Group and the nation's largest footwear retailer, Accent, also recently revealing sinking sales. Accent's retail brands and shoe distribution partners include Skechers, Platypus, Hype DC, The Athlete's Foot and Vans.

Culture Kings stores, known for their hyperactive in-store entertainment with basketball courts, barbers, DJs and other events, have now succumbed to the retail malaise and are deeply discounting to sell stock – but this has come at a cost to its US owners.

"We are facing continued macro pressure across our brands in Australia and New Zealand," a.k.a Brands interim chief executive Ciaran Long told US analysts.

"Despite the growth in the US, a quarter of profitability was impacted by continued consumer macro headwinds in Australia ... with continued macro pressure in Australia, we are taking aggressive actions to right-size the Culture Kings inventory in the region. We invested about 105 basis points of gross margin with the actions we took to move through inventory at Culture Kings in Australia in the third quarter."

The Beards began their business 20 years ago selling slippers to schoolies on the Gold Coast.

Fortescue suffers first strike

Continued from Page 13

Tuesday its board had "fast tracked" three other projects in Kenya, Brazil and Norway.

But the first will be a 11,000 tonne a year green hydrogen project in Phoenix, Arizona, which will come with a $US550m capital cost and is due to start commercial operations in mid-2026.

Fortescue said it would "initially" fund 100 per cent of the project, as it looked for debt and equity funding for the facility.

In addition, Fortescue will spend $US150m on a hydrogen plant in Gladstone, which will use electrolysers made in Fortescue's nearby manufacturing plant to make up to 8000 tonnes of green hydrogen a year.

Fortescue did not give any details of the expected returns from the projects.

The company's proposed Gibson Island plant, a joint venture with Incitec Pivot, appears to be on the back burner, with the company saying it was still working on front end engineering and design studies but required further work "as Australia struggles to shed its petrostate status and still suffers structurally high green electricity costs".

Dr Forrest told reporters the decision did not mean that the Gibson Island project was dead.

"We've really got the technology down pat, and it's a function of electricity prices. We're still working with the Queensland government closely.

"We're still working with the technology sector to drag those costs down and drag that capex down," he said.

"But we've set ourselves high hurdles as a public company, and we're very disciplined on capital allocation."

Fortescue shares closed up 17c at $25.47 on Tuesday.

Forrest shrugs off US lawsuit

Continued from Page 13

utility Energy Harbor. The lawsuit filed by Kid Shelleen alleges that Fortescue initially tried the switch the deal from its initial conception, in which Fortescue would buy the assets and then allow the US company to buy in, to asking Mr Tudor Jones' company to front the purchase with Fortescue as a silent partner.

"FFI and its representatives were not keen on the optics of FFI, an entity ostensibly seeking to produce green energy, purchasing and running coal energy plants," the documents say.

Despite agreeing to make a $US135m non-binding offer for the power stations, Fortescue then completely reneged on the deal by making a separate offer for the Energy Harbor plans in August 2022, the documents say.

Kid Shelleen then alleges Fortescue reneged on a verbal agreement to reimburse its time and costs for conducting due diligence investigations on the assets, worth about $US6.25m.

Dr Forrest dismissed the legal fight as a "total non-event" on Tuesday, telling reporters on the sidelines it was a "boring" story.

"Someone low down in his chain somewhere has made an accusation against someone who doesn't even work for us anymore," he said.

NOTICES

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Toyota Motor Corporation Australia Ltd., is proud to announce the winners of the October Guest Experience Survey Promotion $200 VISA Debit Gift Cards are John & Susan Johnson (QLD), Thair Al Yass (WA), Lauren Dempsey (SA), Lisa Scott-irving (NSW), Michael Kennedy (QLD), Benton Poon (NSW), Marin Panickar (WA), Terrie Walker (NSW), Susan Williams (NSW), Anna Dichera (SA), Erikko Dimitui (WA), Trevor Seeto (NSW), Suresh Gill (NSW), Clare Burcham (QLD), Ahmad Sabbagh (NSW). These winners have been drawn in accordance with Permit Numbers ACT TP 22/02401, SA T22/1981, and NSW TP/02346.

Toyota Finance Australia Limited is proud to announce the winners of the October Customer Experience Survey Promotion $150 VISA Debit Gift Cards are Mitchell Bates (NSW), Wayne Harycki (QLD), Anonymous (VIC), Jeremy Henderson (VIC), Nathan Stokes (QLD), Romeo Estaron (WA), Daniel Burgess (QLD), Joshua Mckenzie Cooke (QLD), Scott Crabtree (QLD), Emma Dolin (WA), Nadia Kaskine (VIC), Robert Thorpe (WA). These winners have been drawn in accordance with Permit Numbers ACT TP 23/00021, SA T23/40 and NSW TP/02392.

Notice is given that an application has been made to the Australian Securities & Investment commission for the discharge of the security lodged by **Advocate Strategic Investments Pty Ltd** A.C.N 107 691 598. Level 3/250 Collins Street, Melbourne Victoria 3000. In relation to the Australian Financial Services Licence 224560. The application has been made because the License has been cancelled by the Company. If you have any claim on that security you are required to lodge particulars in writing to Australian Securities & Investments Commission at P O Box 9827 in your capital city, not later than 3 months after the date of publication of this notice. Failure to lodge your claim before the end of the period specified, may result in the discharge of the security and the release of any surety from his or her obligations in relation to that claim.

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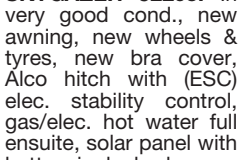


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- The Courier (Ballarat, VIC)
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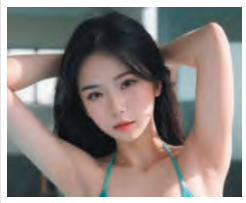
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NOPSEMA | Australia's offshore energy regulator

Consultation on offshore petroleum environment plans

Information for the community



The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) is Australia's independent expert regulator for health and safety, structural and well integrity, and environmental management for offshore petroleum and greenhouse gas storage activities in Commonwealth waters.

The protection and preservation of the marine environment is best achieved when there are opportunities for the community to participate in the environmental approvals process through consultation.

Who can participate?

Under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the regulations) there are several ways the community can participate in the environmental approvals process for offshore petroleum activities in Commonwealth waters.

Public comment for new projects and exploration activities

Offshore project proposals (OPPs) for new offshore petroleum projects and environment plans for offshore petroleum exploration activities are subject to a mandatory public comment period. Public comment must be done before the OPP or environment plan is submitted to NOPSEMA for assessment. Further information about public comment can be found at nopsema.gov.au.

Relevant persons consultation

Titleholders must consult with a specific category of people or organisations referred to as 'relevant persons' while preparing an environment plan for any offshore petroleum activity. This consultation must be done before the environment plan is submitted to NOPSEMA.

Some categories of relevant persons are specified in the regulations, such as government departments, however the information in this brochure is for the category of relevant persons who are not specified but who have 'functions, interests or activities' that may be affected by the offshore activity.

Correspondence directly to the regulator (NOPSEMA)

You can send correspondence directly to NOPSEMA; however, this generally cannot be considered until after the environment plan has been submitted. It is always better to use the public comment and relevant persons consultation processes in the first instance.

What is 'relevant persons' consultation?

Consultation on offshore petroleum activities is a two-way process where information is shared between titleholders and relevant persons. It is a requirement for titleholders when preparing an environment plan and is an important part of good environmental management.

Consultation provides an opportunity for people or organisations who may be affected by an offshore petroleum activity to raise concerns, including objections or claims, about the potential impacts of the activity, to seek information about how they may be affected, and how the titleholder intends to manage the activity to ensure the associated impacts are as low as reasonably practicable and are acceptable.

Information provided by relevant persons in consultation may also help titleholders better understand the values and sensitivities of the environment and inform the evaluation of the potential impacts and risks associated with the activity and how to manage them appropriately.

Am I a relevant person?

You may be a relevant person if you or your organisation have functions, interests, or activities that may be affected by an offshore petroleum activity proposed under an environment plan being prepared or already underway under an environment plan being revised.

The terms 'functions' 'interests' and 'activities' should be read broadly. You do not have to have a legal or financial interest that may be affected by an offshore petroleum activity to be a relevant person.

Interests that may be affected can include things like cultural and spiritual connections to the sea or interests in the protection of specific marine species. However, to be a relevant person your interests should be more than a general interest in the environment and/or offshore petroleum activities.

If I am a representative body, can I consult on behalf of all my members?

The law recognises that interests may be held communally. In some cases, all members of a community may agree that their representative body can consult on their behalf. However, this may not always be the case. Representative bodies should inform titleholders whether or not they have the authority to consult with titleholders on behalf of all their members.

Representative bodies, such as peak bodies and prescribed body corporates, may be relevant persons in their own right. They may also be an initial point of contact for titleholders to seek information about who else they should approach for consultation.

It is the titleholder's responsibility to provide all members of a community who have a shared interest opportunities to participate in consultation. In some circumstances, representative bodies may offer to assist titleholders with this.

Do I have to participate?

If you are a relevant person, you have the right to be consulted by titleholders of offshore petroleum activities when they are preparing an environment plan to submit to NOPSEMA.

Titleholders have a duty to provide you an opportunity to be consulted, however there is no obligation on you to participate in consultation. If you do not wish to be consulted, you should advise titleholders of this when they first contact you.

Titleholders must make reasonable efforts to consult with relevant persons, but the regulations do not require them to get a response to their requests. If you want to participate in consultation but need more information or time then it is best to communicate this to titleholders when they contact you. If you do not respond, they might assume you do not wish to be consulted.

If you are an organisation or representative body that is regularly approached for consultation you may consider developing guidance outlining how and when you want to be consulted. You could also consider documenting your functions, interests and activities. Both measures may help with managing regular requests for consultation.

In some instances, the likelihood of you being affected by an activity is very low and/or the impact on your functions, interests or activities may be minor. For example, if you are only going to be affected by the activity in the very unlikely event of an oil spill you may wish to inform titleholders you only want to be consulted if a spill occurs as part of the requirement for ongoing consultation set out in the regulations.



What if I want to be consulted but the titleholder hasn't contacted me?

Titleholders have a duty to identify who may be a relevant person and provide them opportunities to participate in consultation. However, even with best endeavors, titleholders may miss people or organisations who may be relevant.

If you believe you are a relevant person and you want to be consulted on offshore petroleum activities, then you should contact titleholders directly and identify yourself as a relevant person.

If a titleholder refuses to consult with you, and you believe you are a relevant person, you can write to NOPSEMA. Once an environment plan is submitted to NOPSEMA, this information can be considered in the assessment of whether or not the titleholder has met the requirements for consultation.

It is always better to attempt to resolve issues with the titleholder in the first instance. Relevant persons consultation is carried out before an environment plan is submitted, so NOPSEMA is limited in its ability to require titleholders to consult with a particular person or organisation.

What is the process for consultation?

There is no detailed process set out for how consultation should be carried out, however there are requirements that must be met under the regulations. These include:

- That you are given sufficient information to make an informed assessment about whether you are likely to be affected by the activity, how you may be affected, and to raise any concerns, including objections or claims, about the potential impacts of the activity.
- That you are given a reasonable period of time to consider the information provided to you and give feedback to the titleholder on the potential impacts of the activity on your functions, interests or activities.

What constitutes sufficient information and a reasonable period of time depends on several factors including the nature of your functions, interests and activities. You should communicate as early as possible in consultation with titleholders about what information and how much time you may need so that they can consider, respond and address these in their planning.

The information provided to you should be in a form that is appropriate and readily accessible to you. Consultation is generally a two-way process where information is shared between titleholders and relevant persons rather than a one-way process of seeking feedback to a fact sheet or high-level information.



What if I don't have the resources to participate?

If you are a relevant person and you believe you have information that is important to the understanding of the potential impacts of an offshore petroleum activity or you want to raise concerns, including objections or claims, then you should discuss with the titleholder how you can participate in consultation.

This might include requesting information in a different format, asking for more time to consider information or help to understand the information to provide an informed response.

There is no requirement in the law for titleholders to pay the costs incurred by relevant persons to be consulted, however they may choose to provide assistance to relevant persons to ensure consultation is carried out efficiently and is robust. This is a matter between the titleholder and relevant persons.

How do I make sure my views are considered?

It is important to communicate clearly when participating in consultation with titleholders. You may provide information to titleholders that helps them understand the environment and raise specific concerns, objections or claims about the potential impacts of the activity or the way the titleholder proposes to manage the activity to ensure the associated impacts are as low as reasonably practicable and are acceptable.

The information you provide to a titleholder during consultation must be considered by that titleholder and addressed in their environment plan for NOPSEMA to consider in its assessment and decision-making.

NOPSEMA publishes environment plans on its website when they are submitted for public comment, for assessment and when they are approved. Relevant persons have the right to request that the information they have provided in consultation is not published and titleholders must ensure they communicate this right to relevant persons.

Relevant persons should be aware that while you are free to respond on any matter and raise any concern, this may not be able to be considered if it is outside the scope or purpose of the environment plan and approval process. Examples of issues that may not be considered under the regulations include statements of fundamental objection to offshore petroleum activities or information containing personal threats or profanities.

Do titleholders need my consent?

Titleholders are not required by law to obtain agreement or consent from relevant persons for their offshore petroleum activities to proceed; however, they are required to demonstrate in their environment plan how the concerns, objections or claims raised by relevant persons were considered and demonstrate that their response to that information was appropriate.

NOPSEMA's assessment and decision-making will consider if titleholders have adequately demonstrated in the environment plan that genuine consultation has taken place with relevant persons in accordance with regulations.

Do I need to respond to a request for consultation?

There is no obligation for relevant persons to respond to a request for consultation from a titleholder. However, if you are provided an opportunity to participate in consultation and you do not want to be consulted, or you only want to be consulted on specific offshore petroleum activities or environmental matters, then it is best that you communicate this to titleholders as soon as they contact you. If you do not respond to requests for consultation, titleholders may make many repeated attempts to contact you.

NOPSEMA can help you understand the requirements for consultation and how to effectively participate in the process. Please contact communications@nopsema.gov.au for assistance.

NOPSEMA | Australia's offshore energy regulator

Further information

For further information visit nopsema.gov.au or contact communications@nopsema.gov.au.

Key legislation

Offshore Petroleum and Greenhouse Gas Storage Act 2006
Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009
Environment Protection and Biodiversity Conservation Act 1999.

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National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)

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Wilderness Society

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Wilderness Society

Survey of King Island Residents

Research Report

emrs

enterprise marketing & research services

September 2021

emrs

enterprise marketing & research services

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Section One

Executive Summary

Executive Summary

Introduction to the Research – King Island Residents Survey

US oil and gas company ConocoPhillips has applied to conduct seismic blasting to explore for gas reserves in the sea to the west of King Island. Seismic blasting uses high-pressure sound waves to detect gas under the seabed. The acquisition area is located 27km west of King Island and covers an area of 4,089km2, including part of the Zeehan Commonwealth Marine Reserve. This seismic blasting is proposed to take place between August 1 – October 31, 2021.

In order to gain feedback from King Island residents, aged 18 years and over, and determine the level of support for and opposition to the proposed seismic testing, the Wilderness Society instructed EMRS, the independent research firm, to design and implement a survey giving all King Island residents an equal opportunity to have their say about the testing.

EMRS was assigned to undertake the design and conduct of the research, in close consultation with the Wilderness Society, and to provide full analysis and reporting on the data gathered.

Quantitative Survey of King Island Residents

In order to collect the required information to meet the specified objectives, EMRS adopted a quantitative survey methodology: namely, the approach of an unaddressed mail survey that was delivered to all households on King Island, with a return-paid envelope addressed to EMRS.

Survey packs landed in mailboxes in the week commencing the 19th of July 2021, and the completed returns were accepted up until the 27th of August 2021. In total, n=537 King Island residents aged 18 years and over participated in the survey.

The following report presents the findings of the survey. The data gathered and analysis of the results are provided in detail in the body of the report, while this summary presents the key informational insights gained.

Executive Summary

Level of Community Support for Seismic Blasting Gas Exploration

Negative attitudes toward seismic blasting for gas exploration in the sea off King Island were dominant, with 96% of the residents surveyed opposing it to some degree and the great majority of these stating they "definitely oppose" it.

- **96% - TOTAL OPPOSE**
  - 93% "definitely oppose"
  - 3% "somewhat oppose"
- **2% - TOTAL SUPPORT**
- 2% - "unsure"

Level of Community Awareness of the Seismic Blasting Plans

There was a high level of overall awareness among the surveyed residents of the plans for the seismic blasting to the West of King Island. The majority confirmed they had been aware of it to some degree prior to the survey.

- **85% - TOTAL AWARE**
  - 50% "definitely aware"
  - 35% "somewhat aware"
- **14% - TOTAL UNAWARE**
- 1% - "unsure"

Whether the King Island Community Should Have a Say in the Proposed Seismic Testing Going Ahead

The residents surveyed expressed a strong call for the community to have a say in whether the proposed seismic blasting goes ahead, with 97% saying yes to some degree and the great majority of these stating "yes, definitely".

- **97% - TOTAL YES**
  - 93% "yes, definitely"
  - 4% "yes, somewhat"
- **3% - TOTAL NO**
- 0% (n=1) - "unsure"

Whether the King Island Community Has Had a Say in the Decision-Making Process

In contrast, the majority of surveyed residents felt that "no", the community had not had a say in the decision-making process on the proposed seismic blasting.

- **77% - TOTAL NO**
- **15% - TOTAL YES**
  - 9% "yes, definitely"
  - 6% "yes, somewhat"
- 8% - "unsure"

Executive Summary

Level of Community Support for Oil and Gas Exploration

Negative attitudes toward oil and gas exploration in the sea off King Island more generally were also pronounced, with 94% of the residents surveyed opposing it to some degree and the great majority of these stating “definitely oppose”.

- **94% - TOTAL OPPOSE**
  - 89% “definitely oppose”
  - 5% “somewhat oppose”
- **5% - TOTAL SUPPORT**
- 1% - “unsure”

Perceived Importance of the Marine Environment

A high degree of importance was attributed to the marine environment, with 99% of the residents confirming it was important to them to some degree and the great majority of these stating “very important”.

- **99% - TOTAL IMPORTANT**
  - 95% “very important”
  - 4% “somewhat important”
- 0% (n=2) - “not very important”
- 0% (n=2) - “unsure”

In summary:

- **A high level of community opposition was evident to both the seismic blasting for gas exploration, and oil and gas exploration more generally, in the seas off King Island.**
- **There was a relatively high level of overall community awareness of the seismic blasting plans.**
- **The clear majority of residents felt the community should have a say in whether the seismic blasting goes ahead; and the majority were of the view that the community had not had a say in the decision-making process.**
- **Virtually all residents confirmed that the marine environment was important to them to some degree.**

Section Two

Introduction

Background, Scope and Aims of the Research

Background to the Research

US oil and gas company ConocoPhillips has applied to conduct seismic blasting to explore for gas reserves in the sea to the west of King Island. Seismic blasting uses high-pressure sound waves to detect gas under the seabed. The acquisition area is located 27km west of King Island and covers an area of 4,089km2, including part of the Zeehan Commonwealth Marine Reserve. This seismic blasting is proposed to take place between August 1 – October 31, 2021.

Scope of the Research

In order to gain feedback from King Island residents, aged 18 years and over, and determine the level of support for and opposition to the proposed seismic testing, the Wilderness Society instructed EMRS, the independent research firm, to design and implement a survey giving all King Island residents an equal opportunity to have their say about the testing.

EMRS was assigned to undertake the design and conduct of the research, in close consultation with the Wilderness Society, and to provide full analysis and reporting on the data gathered.

Aims of the Research

Quantitative Survey of King Island Residents

In order to gain feedback from King Island residents on the proposed seismic testing to search for gas reserves, the primary aim of the research was to identify:

- The level of support for and opposition to seismic blasting for gas exploration in the sea off King Island; along with
- Awareness of the proposed testing among the King Island community;
- Perceptions of the community having a say on the testing; and
- The work and recreational uses of the seas around King Island.

Objectives of the Research

Objectives of the Research

Quantitative Survey of King Island Residents

Specifically, the informational objectives were to evaluate, via a quantitative survey methodology:

- The level of support for and opposition to the seismic blasting for gas exploration in the sea off King Island;
- Awareness prior to the survey of plans by an oil and gas exploration company to undertake seismic blasting to the west of King Island;
- Views on the King island community having a say on the proposal and being involved in the decision-making process on it going ahead;
- The level of support for and opposition to oil and gas exploration in general in the sea off King Island;
- The respondents' perceptions of the importance of the marine environment;
- The extent of their dependence on a marine-based income;
- The sector of the economy in which they work; and
- Their usage of the seas around King Island.

Research Methodology

The Research Methodology

Quantitative Survey of King Island Residents

In order to collect the required information to meet the specified objectives, EMRS adopted a quantitative survey methodology: namely, the approach of an unaddressed mail survey that was delivered to all households on King Island, with a return-paid envelope addressed to EMRS.

The survey package sent to each household on King Island included:

- A letter,
- Three copies of the survey – one for each adult in the household (up to 3 adults), and
- One reply-paid envelope.

In order to ensure that additional survey requirements were met, additional polling packs were provided for residents to pick up at the Currie Post Office.

The data was collected by means of EMRS' own research capability, with the progress and content of the data collection being closely monitored throughout to ensure quality control.

Survey packs landed in mailboxes in the week commencing the 19th of July 2021, and the completed returns were accepted up until the 27th of August 2021. In total, n=537 King Island residents aged 18 years and over participated in the survey.

Reporting on the Results

Reporting on the Results

Where percentages do not sum to 100, this may be due to rounding or where respondents were able to give multiple responses. Throughout the report, an asterisk(*) denotes the reason for the results not summing to 100 per cent.

The following report presents the findings of the quantitative research, conducted among a cohort of n=537 King Island residents aged 18 years and over, to identify their perceptions of the proposed seismic testing for gas exploration in the seas off King Island, their views on the level of community consultation on the proposal, the value they place on the marine environment, and their use of the seas around King Island for work and recreation.

The research results have been presented predominantly in charts. Any statistically significant variations in the results across the population subgroups have been remarked upon in the analytical commentary accompanying the charts.

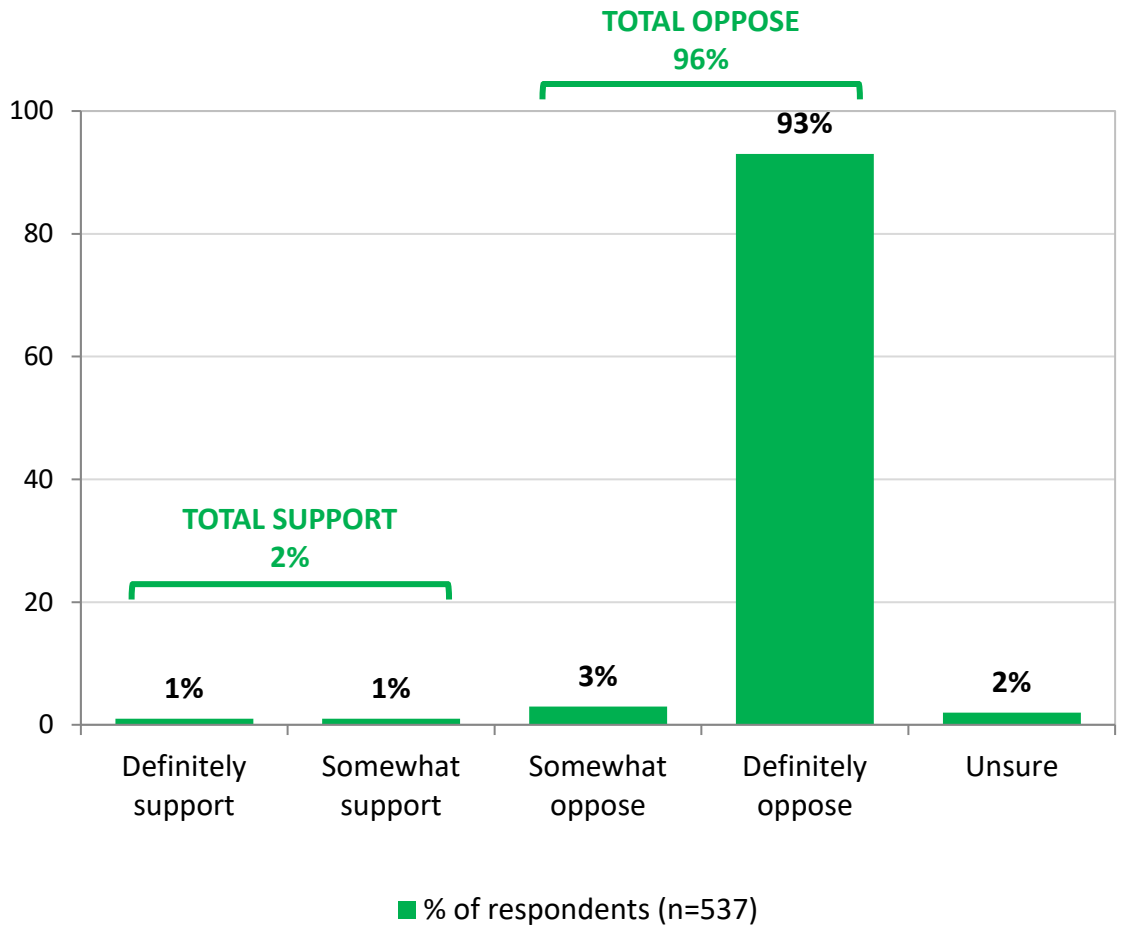
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Section Three

The King Island Residents Survey Results

Level of Support for Seismic Blasting Gas Exploration

Chart 1 – Level of Support for Seismic Blasting Gas Exploration (Percentage of all respondents)



The clear majority of the residents surveyed confirmed that they "definitely oppose" the seismic blasting for gas exploration in the sea off King Island (93%).

Including the 3% who said "somewhat oppose", a combined total of 96% were in opposition.

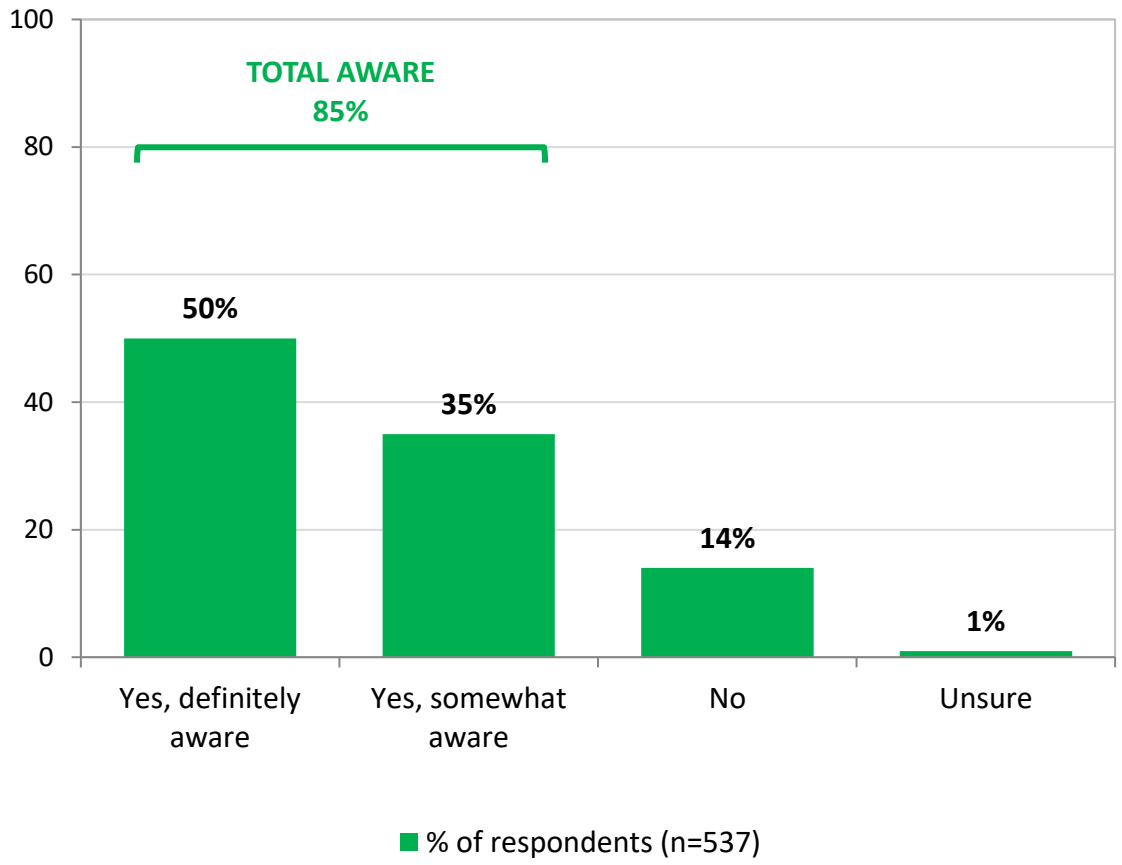
By population subgroup, the following finding emerged:

- Respondents who used the seas around King Island for **general recreation** were significantly more likely to **"definitely oppose"** the seismic blasting (95%).

Q. Do you support or oppose seismic blasting for gas exploration in the sea off King Island?

Level of Awareness of the Seismic Blasting Plans

Chart 2 – Level of Awareness of the Seismic Blasting Plans (Percentage of all respondents)



The majority of residents surveyed confirmed that they were aware to some degree of plans by an oil and gas exploration company to undertake seismic blasting to the west of King Island (85% in total).

Of these, one half said "yes, definitely aware" (50%).

By population subgroup, the following were significantly more likely to be aware of the plans for seismic blasting:

- Those who were **fully dependent on a marine-based income**, 73% of whom said **"yes, definitely aware"**.
- Those who worked in the **fishing sector**, 68% of whom said **"yes, definitely aware"**.

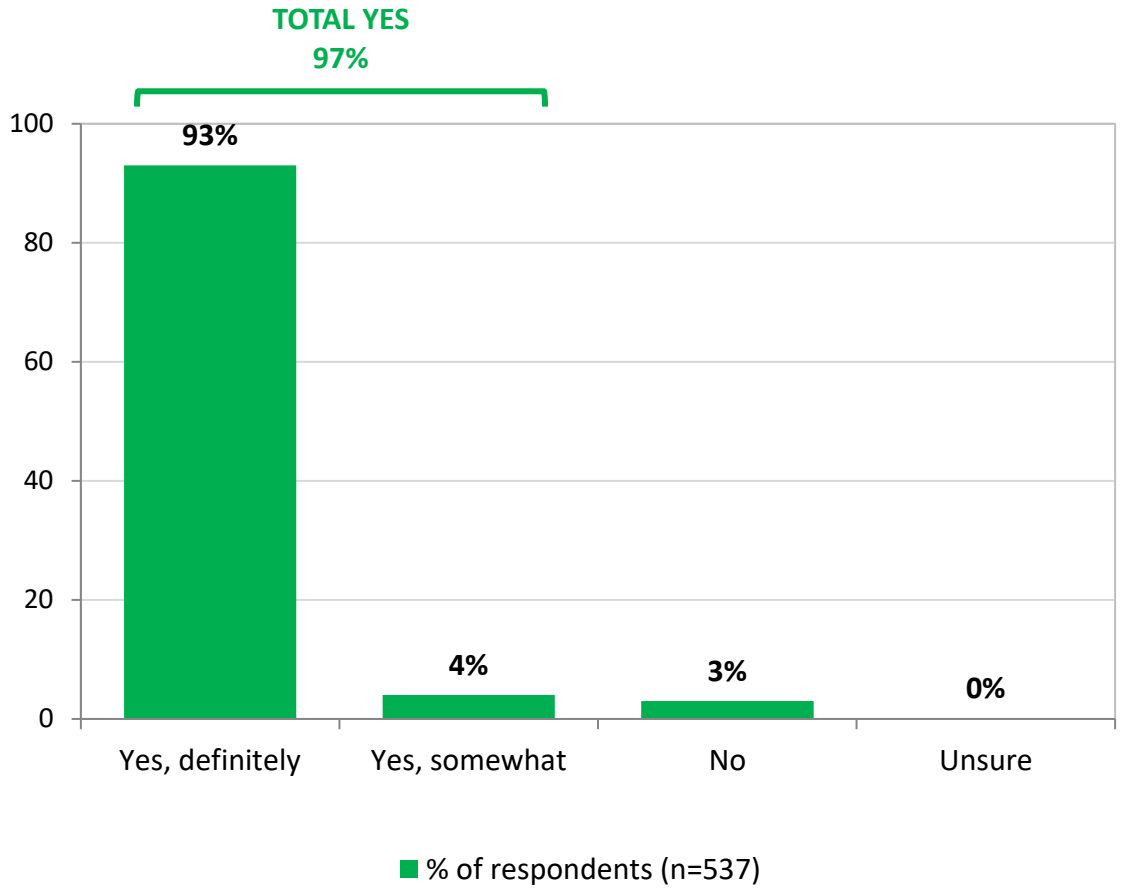
As compared to:

- Respondents working in the **manufacturing sector**, who were significantly more likely to report **"no"**, they were not aware of the plans (60%).

Q. Before today, were you aware of plans by an oil and gas exploration company to undertake seismic blasting to the west of King Island?

Whether the King Island Community Should Have a Say in the Proposed Seismic Testing Going Ahead

Chart 3 – Whether the King Island Community Should Have a Say in the Proposed Seismic Testing Going Ahead (Percentage of all respondents)



The clear majority of the residents surveyed confirmed that the King Island community should have a say in the proposed seismic blasting going ahead (97% in total).

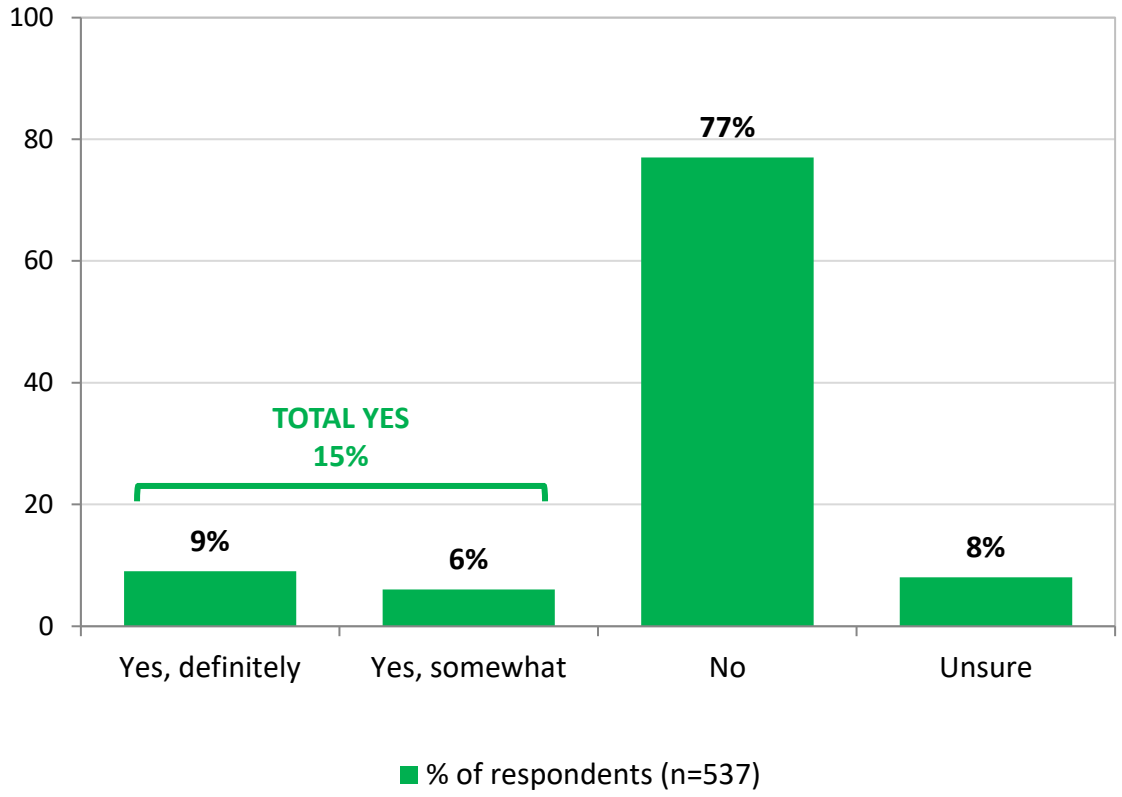
Of these, the most significant proportion by far said "yes, definitely" (93%).

By population subgroup, there were no significant variations to be noted.

Q. Do you think the King Island community should have a say in whether this proposed seismic blasting goes ahead?

Whether the King Island Community Has Had a Say in the Decision-Making Process

Chart 4 – Whether the King Island Community Has Had a Say in the Decision-Making Process (Percentage of all respondents)



In contrast to the previous result, the clear majority of the residents surveyed felt that "no", the King Island community has not had a say in the decision-making process or were "unsure" (85% in total).

Of these, the most significant proportion by far said a definitive "no" (77%).

Just 15% in total said "yes".

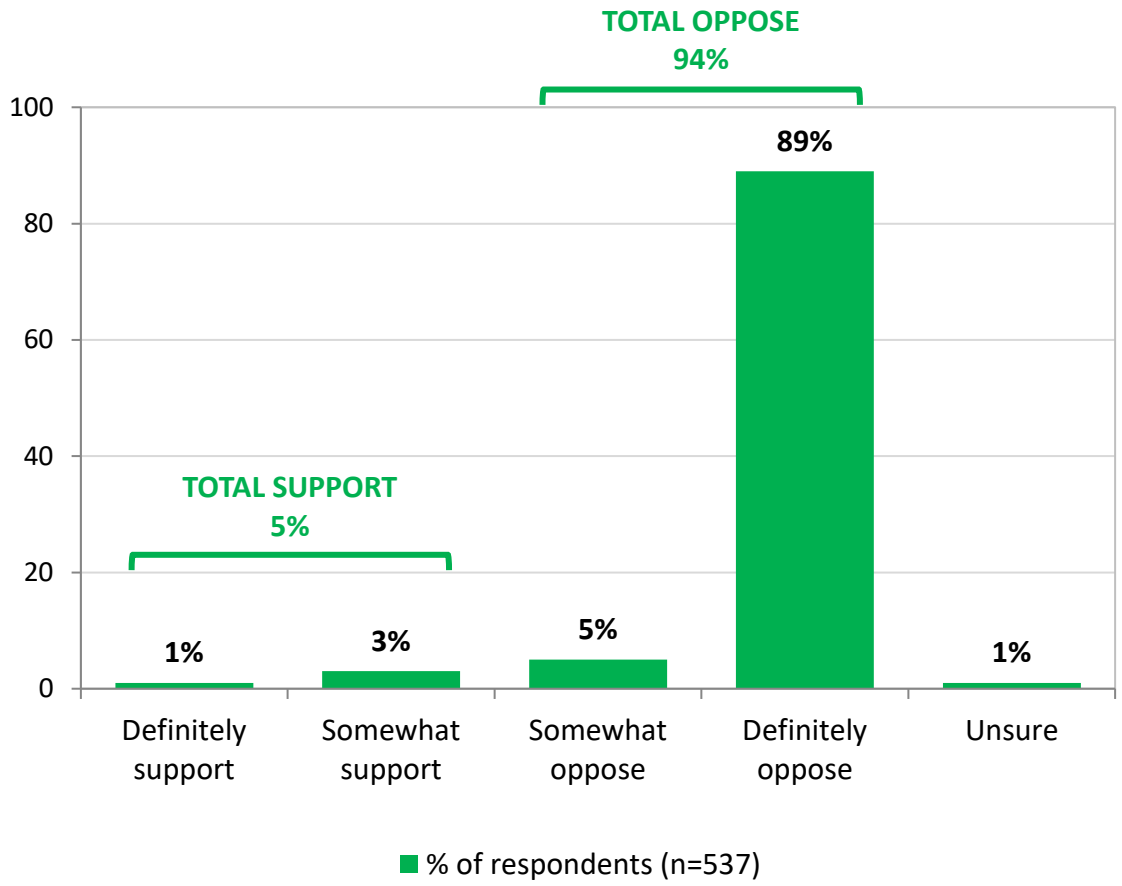
By population subgroup, the following finding emerged:

- Respondents who were **fully dependent on a marine-based income** were somewhat more likely to state **"yes, definitely"** (19%) than the other income groups.

Q. Do you feel that the King Island community has had a say in the decision-making process?

Level of Support for Oil and Gas Exploration

Chart 5 – Level of Support for Oil and Gas Exploration (Percentage of all respondents)*



*Percentages may not sum to 100 due to rounding.

The clear majority of the residents surveyed opposed oil and gas exploration in the sea off King Island (94% in total).

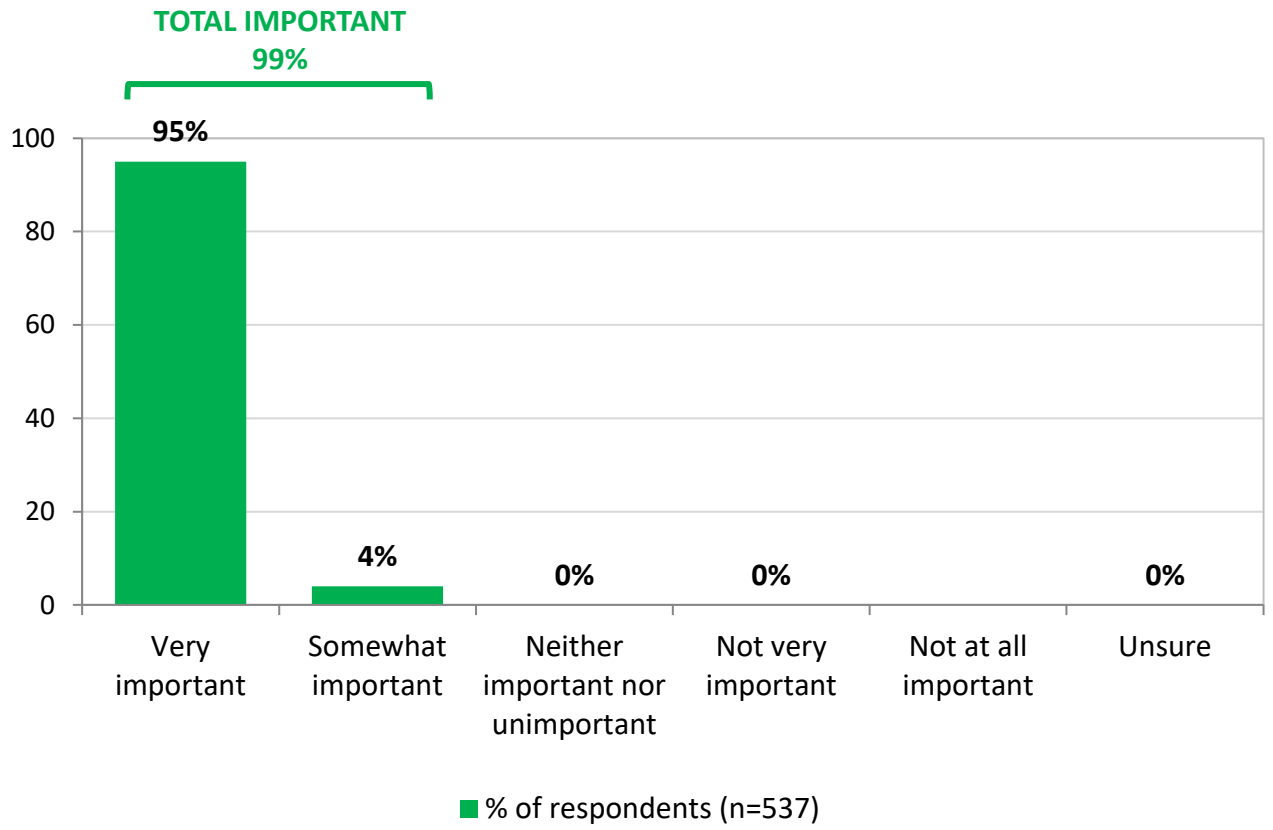
Of these, the greater proportion by far said "definitely oppose" (89%).

By population subgroup, there were no significant variations to be noted.

Q. Do you support or oppose oil and gas exploration in the sea off King Island?

Perceived Importance of the Marine Environment

Chart 6 – Perceived Importance of the Marine Environment (Percentage of all respondents)†



Nearly all of the residents surveyed confirmed that the marine environment was important to them to some degree (99% in total).

Of these, the great majority said it was "very important" (95%).

In total, just n=2 respondents stated it was "not very important" to them.

By population subgroup, there were no significant variations to be noted.

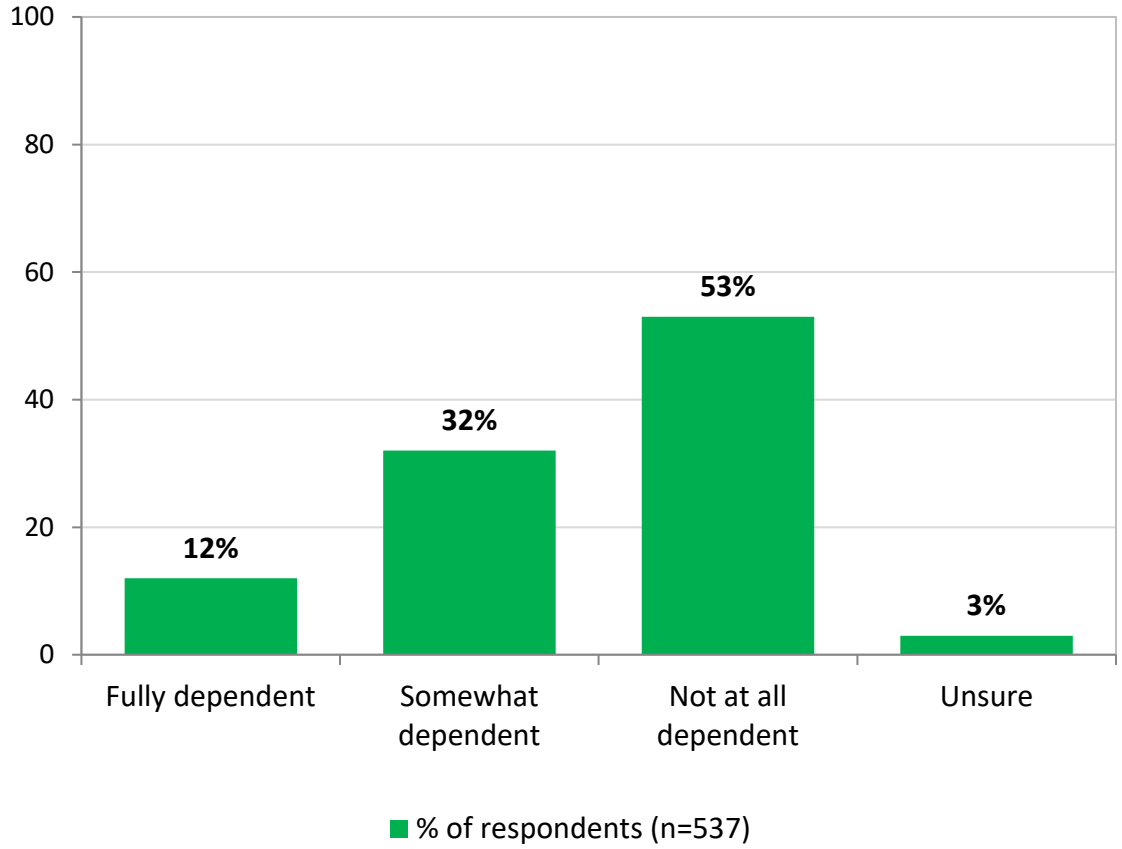
†The "0%" figures in the chart represent n=1 stating "neither important or unimportant", n=2 stating "not very important", and n=2 stating "unsure".

Q. How important is the marine environment to you?

Extent of Dependence on a Marine-Based Income

Survey Population Subgroups

Chart 7 – Extent of Dependence on Marine-Based Income (Percentage of all respondents)



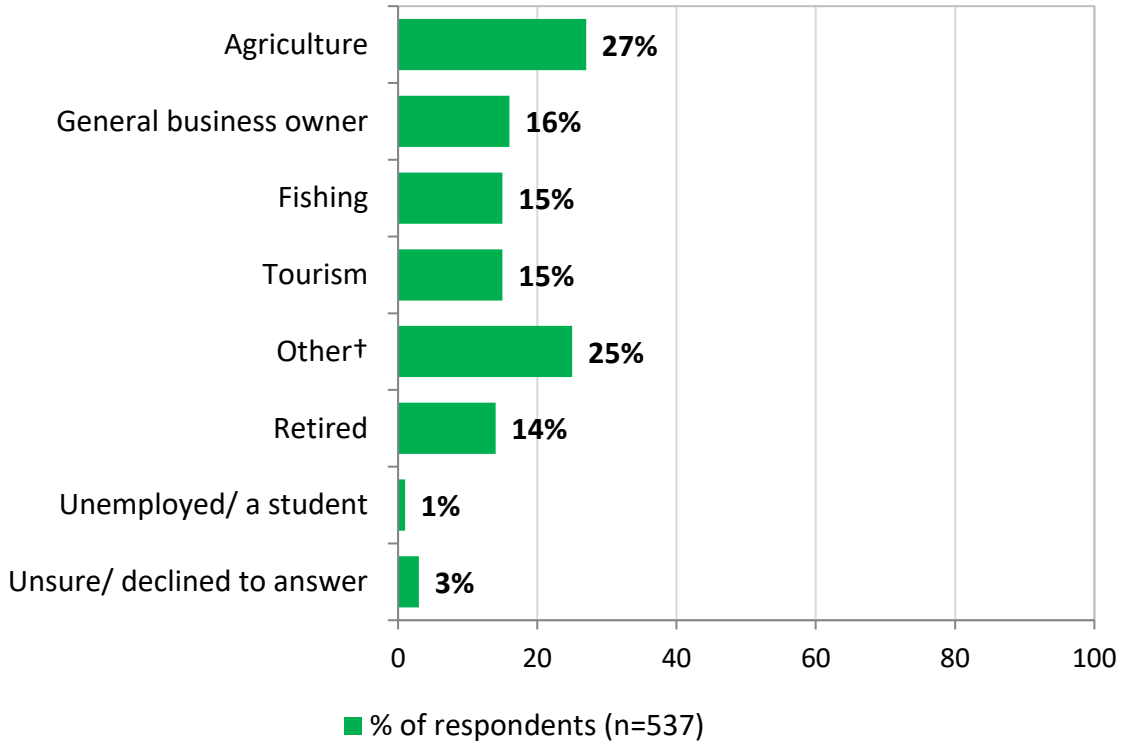
Whilst the residents surveyed tended to report that they were "not at all dependent" on a marine-based income (53%), a relatively significant proportion confirmed that they were to some degree (44% in total).

Q. To what extent are you dependent on a marine-based income?

Employment Categories

Survey Population Subgroups

Chart 8 – Employment Categories
(Percentage of all respondents)*



The leading sector of the economy in which the surveyed residents of King Island worked was "agriculture" (27%), followed by "general business owner" (16%), and "fishing" and "tourism" (15% in each case).

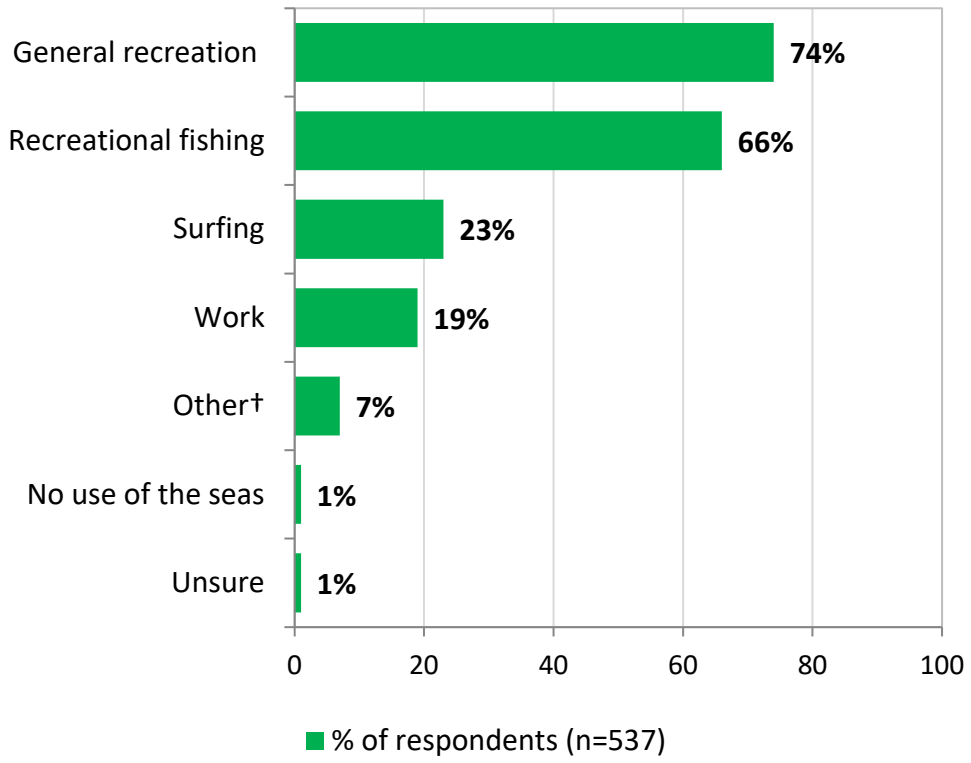
* Percentages do not sum to 100 due to multiple responses being possible.
† "Other" employment sectors, each mentioned by 4% or less, included "education", "retail/ hospitality", "health", "transport/ freight", "manufacturing", "kelp industry", "Government", and "trades work".

Q. What sector of the economy do you work in?

Use of the Seas around King Island

Survey Population Subgroups

Chart 9 – Use of the Seas around King Island (Percentage of all respondents)*



As the responses indicated, the majority of residents used the seas around King Island for recreational activities.

Most frequently mentioned was "general recreation – e.g. swimming, diving, boating etc." (74% in total), followed by "recreational fishing" (66%).

"Surfing" and "work" also recorded relatively high rates of mention (23% and 19% respectively).

Just 1% of the respondents (n=3) reported that they made "no use of the seas".

Respondents significantly more likely to mention using the seas for **"work"** were:

- Those **fully dependent on a marine-based income** (79%)
- Those employed in **fishing** (80%)

Respondents significantly more likely to mention using the seas for **"recreational fishing"** were:

- Those employed in **agriculture** (80%)

Respondents somewhat more likely to mention using the seas for **"general recreation"** were:

- Those employed in **tourism** (88%)
- Those classified as a **general business owner** (88%)

Respondents somewhat more likely to mention using the seas for **"surfing"** were:

- Those employed in **fishing** (37%)

* Percentages do not sum to 100 due to multiple responses being possible.
† "Other" uses, each mentioned by 3% or less, included "spiritual practices/ meditation", "walking/ beachcombing", "natural beauty/ nature", and "exercise/ mental health".

Q. How do you use the seas around King Island?

Legislative and Other Requirements

Establishing the Context

The identification of legislative and other environmental requirements that apply to the Otway exploration drilling program provides important context for the evaluation of environmental impacts and risks. ConocoPhillips Australia is required to have regard for all relevant context when defining the acceptable level of impacts and risks, including (among other things) laws, policies, standards, conventions, statutory instruments such as recovery plans for threatened species and plans of management for protected places.

Predictions of environmental impact and risk must be made with legislative and other requirements in place as they represent the minimum level of environmental management required. Control measures are then implemented to ensure that these requirements are complied with.

The primary legislation governing the exploration project is the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act) and the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (OPGGS(E) Regulations).

Currently identified 'legislative and other environmental requirements' have been collated below.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Commonwealth Legislation and Regulations	
Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGS Act, the Act)	Provides the legislative framework for the exploration and recovery of petroleum and greenhouse gas (GHG) activities in Commonwealth waters (those areas that are more than three nautical miles from the territorial seal baseline). This Act establishes the Joint Authority for each offshore area, the National Offshore Petroleum Titles Administrator (NOPTA) and the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). The Joint Authorities are responsible for key petroleum title decisions in Commonwealth waters including, but not limited to, the release and grant of offshore petroleum exploration areas. NOPTA administers titles and data management for petroleum and greenhouse gas (GHG) titles in Commonwealth waters and provides expert advice, administration, compliance monitoring and data management in accordance with OPGGS Act. NOPSEMA is the Independent regulator for health and safety, structural (well) integrity and environmental management for all offshore petroleum and GHG operations in Commonwealth waters and in coastal waters where regulatory powers and functions have been conferred.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (OPGGS(E) Regulations, Environment Regulations)	The Environment Regulations provide for the robust regulation of environmental management of petroleum and greenhouse gas storage activities in Commonwealth waters, and aim to ensure that activities in these areas are: • Undertaken in a manner that is consistent with ecologically sustainable development • In line with the objective that environmental impacts and risks are reduced to as low as reasonably practicable and are of an acceptable level. The Regulations require that a NOPSEMA accepted Environment Plan (EP) and Oil Pollution Emergency Plan (OPEP) be place for any petroleum activity prior to commencement. They also establish requirements for consultation in preparing an EP and for public comment.
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The EPBC Act is the Australian Government's central piece of environmental legislation which provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the EPBC Act as matters of national environmental significance. On 28 February 2014, the NOPSEMA Program, which was endorsed by the Australian Government under the EBPC Act, came into effect. The Program provides for NOPSEMA to assess and make approval decisions for new offshore petroleum development projects and shorter-term activities. NOPSEMA's environmental assessment processes consider all project- and activity-specific environmental impacts and risks, including but not limited to those relevant to matters protected under Part 3 of the EPBC Act. Decision-making under the Program ensures that environmental impacts and risks, including to matters protected under Part 3 of the EPBC Act, will be of an acceptable level and reduced to as low as reasonably practicable (ALARP). The object of the Environment Regulations is also to ensure that any petroleum activity or greenhouse gas storage activity is carried out in a manner consistent with the principles of ecologically sustainable development as set out in section 3A of the EPBC Act. Matters of National Environmental Significance (MNES) include: • World heritage properties • National heritage places • Wetlands of international importance (Ramsar wetlands) • Nationally threatened species and ecological communities • Migratory species • Commonwealth marine areas • The Great Barrier Reef Marine Park • Nuclear actions (including uranium mining) • A water resource, in relation to coal seam gas and large coal mining developments. Example: Under the EPBC Act, all cetaceans (whales, dolphins and porpoises) are protected within the Australian Whale Sanctuary, which includes all Commonwealth waters from the state waters limit out to the boundary of the Exclusive Economic Zone. Section 229 of the EPBC Act makes it an offence to kill, injure or interfere with a cetacean within the Australia Whale Sanctuary.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations)	Provides for the listing of threatened species and ecological communities, registration of critical habitats, the development of recovery and threat abatement plans and conservation agreements. Part 8 – Interacting with cetaceans and whale watching provides for the protection and conservation of cetaceans, including: • Exclusion and cautions zones around cetaceans and calves • Speed restrictions • Avoidance actions • Posting a lookout • Aircraft heights. Part 9 provides for the conservation of biodiversity in commonwealth areas, Part 10 provides management principles for protected areas, and Parts 11 and 12 provide for commonwealth reserves and activities within these areas.
Protection of the Sea (Prevention of Pollution from Ships) Act 1983 • Part III (Prevention of pollution by noxious substances) • Part IIIA (Prevention of pollution by packaged harmful substances) • Part IIIC (Prevention of pollution by garbage)	Regulates ship-related operational activities and invokes certain requirements of the MARPOL Convention relating to discharge of noxious liquid substances, sewage, garbage, air pollution etc. It requires that ships >400 gross tonnes have pollution emergency plans. Several Marine Orders (MO) are enacted under this Act relating to offshore petroleum activities, including: • MO 91: Marine Pollution Prevention – Oil • MO 93: Marine Pollution Prevention – Noxious liquid substances • MO 94: Marine Pollution Prevention – Packaged harmful substances • MO 95: Marine Pollution Prevention – Garbage • MO 96: Marine Pollution Prevention – Sewage • MO 97: Marine Pollution Prevention – Air Pollution • MO 98: Marine Pollution Prevention – Anti- fouling Systems. The drilling rig and support vessels >400 gross tonnes will adhere to the relevant MOs by having a Shipboard Marine Pollution Emergency Plan (SMPEP), Oil Record Book and Garbage Management Plan in place and implemented, along with international pollution prevention certificates verifying compliance with oil, air pollution and sewage measures.
Australian Maritime Safety Authority Act 1990 (AMSA Act)	Facilitates international cooperation and mutual assistance in preparing for and responding to major oil spill incidents. Encourages development and maintenance of capability to deal with oil pollution emergencies. Requirements are implemented through the Australian Maritime Safety Authority (AMSA), the lead agency for responding to oil spills in the Commonwealth marine environment responsible for implementing the Australian National Plan for Maritime Environmental Emergencies (NatPlan).
AMSA Marine Orders Part 94 (Marine pollution prevention – packaged harmful substances) 2014	Sets out the requirements for preventing harmful substances carried by regulated Australian vessels, domestic commercial vessels and Australian recreation vessels from entering the marine environment, including management of: • Harmful substances in packaged form • Washing substances overboard • Notifying and reporting an incident.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
AMSA Marine Orders Part 95 (Marine pollution prevention – garbage) 2018	Sets out the requirements for management of: • Cargo residues • Discharges of animal carcasses • Garbage management plans • Garbage record books.
Navigation Act 2012 (& Regulations 2013) and various Marine Orders (appropriate to vessel class) enacted under this Act	Regulates ship-related activities in Commonwealth waters including Safety of Life at Sea (SOLAS) and specific requirements for navigational lighting and invokes certain requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) relating to equipment and construction of ships. Although the Act does not apply to the operation of petroleum facilities, it may apply to some of the actions of seabed survey and support vessels (seafarers) in Australian waters. Of relevance are: • Chapter 6 (Safety of navigation), particularly Part 3 (Prevention of collisions). • AMSA MO 21 Safety of Navigation and Emergency Procedures. • AMSA MO 27 Safety of Navigation and Radio Equipment. • AMSA MO 30 Prevention of Collisions. • AMSA MO 50 Special purpose vessels, such as those used for offshore drilling. • AMSA MO 70 Seafarer certification.
Biosecurity Act 2015	Biosecurity obligations are administered by the Department of Agriculture, Fisheries and Forestry (DAFF) and include ballast water and biofouling requirements, specifically: • Pre-arrival information must be reported through MARS before arriving in Australian waters • Biofouling management plan and record book in place • Offshore Biofouling Risk Assessment Register, which considers biofouling and ballast water related risks, which may lead to IMS inspections by suitably qualified personnel • Antifouling system certification for vessels is current and in accordance with AMSA Marine Order Part 98 (Antifouling systems).
Biosecurity (Ballast Water and Sediment) Determination 2017 and the Australian Ballast Water Management Requirements Version 8 (DAWE, 2020)	The International Convention on the Control and Management of Ship's Ballast Water and Sediment (Ballast Water Management Convention) applies to waters out to 200 nm and is given effect in Australia through the Biosecurity Act 2015, Biosecurity (Ballast Water and Sediment) Determination 2017 and the Australian Ballast Water Management Requirements. Australian Ballast Water Management Requirements including ballast water treated via a ballast water treatment system (with Type Approval Certificate) and ballast water record system will be maintained with all ballast water discharges to be reported. Vessels moving between Australian ports and offshore installations, within Australian waters, will manage ballast water in accordance with Australia's domestic ballast water requirements. The acceptable area for a ballast water exchange between an installation and an Australian port is in sea areas >500 m from the offshore installation, and >12 nm from the nearest land (as per DAWE, Australian Ballast Water Management Requirements Version 8).

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Fisheries Management Act 1991 (& Regulations 2009)	Administered by the Australian Fisheries Management Authority's (AFMA's) to: • Implement efficient and cost-effective fisheries management on behalf of the Commonwealth • Ensure the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ESD • Maximise the net economic returns to the Australian community from the management of Australian fisheries • Ensure accountability to the fishing industry and to the Australian community in management of fisheries resources, and • Achieve government targets in relation to the recovery of the costs of AFMA.
Underwater Cultural Heritage Act 2018	Protects the heritage values of shipwrecks, sunken aircraft and relics (older than 75 years) in Australian Territorial waters from the low water mark to the outer edge of the continental shelf (excluding the State's internal waterways). The Act allows for protection through the designation of protection zones. Activities / conduct prohibited within each zone will be specified.
Tasmanian Legislation	
Environmental Management and Pollution Control Act 2004 (EMPCA)	The primary environment protection and pollution control legislation in Tasmania administered by the Environment Protection Authority (EPA-Tas). Fundamental objectives are the prevention, reduction and remediation of environmental harm, focussing on preventing environmental harm from pollution and waste. It defines the EPA's jurisdiction during a spill event, prescribes the fee structure to waste events and environmental protection notices and regulates the management and control of controlled wastes. Relevant regulations under the EMPCA include: • Environmental Management and Pollution Control (General) Regulations 2017 • Environmental Management and Pollution Control (Waste Management) Regulations 2010 • The EPA Division Compliance Policy provides the Director of the EPA powers of compliance.
Marine-related Incidents (MARPOL Implementation) Act 2020 (& Regulations)	Deals specifically with discharges of oil and other pollutants from ships and gives effect in Tasmania to the MARPOL international convention on marine pollution.
Living Marine Resources Management Act 1995	Administered by Fishing Tasmania to achieve sustainable development of living marine resources having regard to the need to: • Increase the community's understanding of the integrity of the ecosystem upon which fisheries depend; and • Provide and maintain sustainability of living marine resources; and • Take account of a corresponding law; and • Take account of the community's needs in respect of living marine resources; and • Take account of the community's interests in living marine resources.
Victorian Legislation	

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Environment Protection Act 1970 (& various Regulations)	Controls discharges and emissions (air, water) to the environment within Victoria. It gives the Environment Protection Authority (EPA) powers to licence premises discharges to the marine environment, control marine discharges and to undertake prosecutions. Provides for the maintenance and, where necessary, restoration of appropriate environmental quality and is relevant to oil pollution in Victorian state waters. The State Environment Protection Policy (Waters of Victoria) designates: • Spill response responsibilities by Victorian Authorities to be undertaken in the event of spills (DPT) with EPA enforcement consistent with the Act and the Pollution of Waters by Oil & Noxious Substances Act 1986. • Requires vessels not to discharge to surface waters sewage, oil, garbage, sediment, litter or other wastes which pose an environmental risk to surface water beneficial uses Discharge of domestic ballast water from emergency response vessels into Victorian State waters must comply with these requirements: • To protect state waters from marine pests introduced via domestic ballast water, ballast water management arrangements applying to all ships in State and territorial waters must be observed as per the Environment Protection (Ships' Ballast Water) Regulations 2006, Waste Management Policy (Ships' Ballast Water) and the Protocol for Environmental Management. • High risk domestic ballast water (ballast water which leachates from an Australian port or within the territorial sea of Australia (to 12 nm)), regardless of the source, must not be discharged into Victorian State waters. • Ship masters must undertake a ballast water risk assessment on a voyage by voyage basis to assess risk level, provide accurate and comprehensive information to the EPA on the status and risk of ballast water contained on their ships, and to manage domestic ballast water discharges with EPA written approval.
Emergency Management Act 2013 (& Regulations 2003)	Provides for the establishment of governance arrangements for emergency management in Victoria, including the Emergency Management Commissioner and an Inspector-General for Emergency Management. Provides for integrated and comprehensive prevention, response and recovery planning, involving preparedness, operational co-ordination and community participation, in relation to all hazards. These arrangements are outlined in the Emergency Management Manual Victoria. Provides for the emergency response structure for managing emergency incidents within Victorian State waters, triggered in the event of a spill impacting or potentially impacting State waters.
Marine (Drug, Alcohol and Pollution Control) Act 1988	Concerns the registration of vessels, pollution of the sea, and the safe and efficient operation of vessels on State waters.
Flora and Fauna Guarantee Act 1988 (& Regulations 2011)	Purpose is to protect rare and threatened species; and enable and promote the conservation of Victoria's native flora and fauna and to provide for a choice of procedures that can be used for the conservation, management or control of flora and fauna and the management of potentially threatening processes. Where a species has been listed as threatened an Action statement is prepared setting out the actions that have or need to be taken to conserve and manage the species and community. Action Statement controls for threatened species present in the environment that may be affected, as adopted (as relevant) within this EP. Triggered if an incident results in the injury or death of a FFG Act listed species (e.g. collision with a whale).

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Heritage Act 1995	Provides for the protection and conservation of historic places, objects, shipwrecks and archaeological sites in state areas and waters (complementary legislation to Commonwealth legislation), administered by Heritage Victoria. Part 5 of the Act is focused on historic shipwrecks, which are defined as the remains of all ships that have been situated in Victorian State waters for 75 years or more. The Act addresses, among other things, the registration of wrecks, establishment of protected zones, and the prohibition of certain activities in relation to historic shipwrecks. May be triggered in the event of impacts to a known or previously un-located shipwreck in Victorian State waters whilst undertaking emergency response activities.
Marine Safety Act 2010 (& Regulations 2012)	Provides for safe marine operations in Victoria, including imposing safety duties on owners, managers and designers of vessels, marine infrastructure and marine safety equipment; marine safety workers, masters and passengers on vessels; regulation and management of vessel use and navigation in Victorian State waters; and enforcement provisions of Police Officers and the Victorian Director of Transport Safety. Reflects the requirements of international conventions - Convention on the International Regulations for Preventing Collisions at Sea & International Convention for the Safety of Life at Sea. Defines marine incidents and the reporting of such incidents to the Victorian Director of Transport Safety. Applies to vessel masters, owners, crew operating vessels in Victorian State waters.
Fisheries Act 1995 (& Regulations 2009)	Provides a legislative framework for the regulation, management and conservation of Victorian fisheries including aquatic habitats.
Wildlife Act 1975 (& Regulations 2013)	The purpose of this Act is to promote the protection and conservation of wildlife. Prevents wildlife from becoming extinct and prohibits and regulates persons authorised to engage in activities relating to wildlife (including incidents). The Wildlife (Marine Mammal) Regulations 2009 prescribe minimum distances to whales and seals/seal colonies, restrictions on feeding/touching and restriction of noise within a caution zone of a marine mammal (dolphins (150 m), whales (300 m) and seals (50 m). Applies where vessels are within State waters responding to a spill event. Prescribes minimum proximity distances to whales, dolphins and seals will be maintained. Triggered if an incident results in the injury or death of whales, dolphins or seals.
Pollution of Waters by Oil and Noxious Substances Act 1986 (POWBONS) (& Regulations 2002)	Established to protect the sea and other waters from pollution by oil and noxious substances. Implements the MARPOL Convention (the International Convention for the Prevention of Pollution from Ships 1973) in Victorian State waters. Requires mandatory reporting of marine pollution incidents. Within Victorian State waters it restricts the discharge of treated oily bilge water according to vessel classification (>400 tonnes); discharge of cargo substances or mixtures; prohibition of garbage disposal and packaged harmful substances; restrictions on the discharge of sewage; regulator reporting requirements for incidents; ship construction certificates and survey requirements. Section 10 (Duty to report certain incidents involving oil and oily mixtures). Triggered in the event of a spill impacting or potentially impacting State waters.
National and State Plans	

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
National Plan for Maritime Emergencies (NatPlan) (AMSA, 2000)	Implements Australia's obligations under the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969; United Nations Convention on the Law of the Sea, 1982; the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990; and the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 with respect to the management of maritime environmental emergencies.
State Maritime Emergencies (non-search and rescue) Plan (Victoria) (EMV, 2013)	Applies to Maritime Emergencies (non-search and rescue) including marine pollution which results, or may result, in a prohibited discharge into state waters of oil, an oily mixture, or an undesirable substance. • Provides the Victorian Marine Pollution Contingency Plan in accordance with the Marine (Drug, Alcohol and Pollution Control) Act 1988 (the Act). • Gives effect to Victoria's obligations under the National Plan for Maritime Environmental Emergencies and Intergovernmental Agreements. • Provides the State Emergency Response Plan Maritime Emergencies (NSR) Sub-plan in accordance with the Emergency Management Act 2013. • Provides strategic guidance for the effective management of maritime emergencies specifically addressing marine pollution (including oil and hazardous noxious substances) and/or maritime casualty NSR.
Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan) (EPA-Tas, 2022)	Documents the arrangements and procedures for prevention, preparedness, response, and recovery from a marine pollution event in Tasmanian waters. As a State plan, it sits within the national framework under the National Plan for Maritime Environmental Emergencies (NatPlan) and in accordance with the Intergovernmental Agreement (IGA) on the National Plan to Combat Pollution of the Sea by Oil and other Noxious and Hazardous Substances. It is as an Associated Plan to the Tasmanian Emergency Management Arrangements (TEMA).
Plans and Policy Statements established under the EPBC Act	
South-east Commonwealth Marine Reserves Network Management Plan 2013-23 (DNP, 2013) – *expiring June 2023*	Outlines management strategies for research and monitoring, assessment and permitting, compliance, community participation, Indigenous involvement and environmental management. Identifies pressures on the conservation values of the South-east Commonwealth Marine Reserves Network including: • Noise pollution associated with shipping, other vessels and offshore mining operations and offshore construction. • Oil pollution associated with shipping, other vessels and offshore mining operations. • invasive species and diseases translocated by vessels. • Light pollution associated with offshore mining operations and other offshore activities, and • Marine debris. Provides management strategies and actions to achieve objectives of the plan.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Wildlife Conservation Plan for Seabirds (CoA, 2020)	Identifies objective 2: Seabirds and their habitats are protected and managed in Australia. Identifies resource extraction including collision with structures, oiling and incineration by flares; Implementing a comprehensive monitoring program of impacts of these offshore platforms should include nature, timing and extent of bird mortality caused by these structures. This information can then be used to better inform regulators responsible for exploration and extraction proposals; Proposals for oil and mineral exploration and exploitation should be adequately assessed and, as appropriate, conditions imposed to ensure there are no adverse effects on seabirds or their habitats. Acute pollution such as oil spill is explicitly identified as a direct and moderate threat to seabirds. Identifies pollution, including marine debris, lighting and acute pollution (given they spend much of their time on the sea surface, are vulnerable to the hazards of oil or fuel spills and are difficult to rehabilitate) as moderate threats with relevant actions: • Manage the effects of anthropogenic disturbance to seabird breeding and roosting areas. • Enhance contingency plans to prevent and/or respond to environmental emergencies that have an impact on seabirds and their habitats.
Wildlife Conservation Plan for Migratory Shorebirds (DEH, 2006)	The background paper to the plan identifies acute pollution such as oil spill as a moderate threat to migratory shorebirds not due to direct contact but rather through impacting important habitat for many years through catastrophic loss of marine benthic food sources. No explicit relevant objectives or management actions.
Threat Abatement Plan for the Impacts of Marine Debris on Vertebrate wildlife of Australia's coasts and oceans (DoEE, 2018)	Address key threatening processes listed under section 183 of the EBPC Act. Details harmful marine debris impacts on a range of marine life, including protected birds, sharks, turtles) and marine mammals. DoEE (2018) defines harmful marine debris to include all plastics and other types of debris from domestic or international sources that may cause harm to vertebrate marine wildlife. This includes land sourced plastic garbage (e.g. bags, bottles, ropes, fibreglass, piping, insulation, paints and adhesives), derelict fishing gear from recreational and commercial fishing activities and ship-sourced, solid nonbiodegradable floating materials lost or disposed of at sea.
EPBC Act Policy Statement 2.1 – Interactions between Offshore Seismic Exploration and Whales: Industry Guideline	Provides practical standards to minimise the risk of acoustic injury to whales in the vicinity of seismic survey operations and provides a framework that minimises the risk of biological consequences from acoustic disturbance from seismic sources to whales in biologically important habitat areas or during critical behaviours. Although these guidelines are specifically designed for seismic survey interactions with cetaceans, some of the provisions may also afford protection for marine species during survey and drilling activities (DEWHA, 2008).
Recovery Plans established under the EPBC Act: Set out the research and management actions necessary to stop the decline of, and support the recovery of, listed threatened species or threatened ecological communities. The aim of a recovery plan is to maximise the long-term survival in the wild of a threatened species or ecological community.	

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Recovery Plan for Marine Turtles in Australia (CoA, 2017)	Identifies marine debris as a threat resulting in entanglement or ingestion, with no directly relevant objectives or management actions. Identifies chemical and terrestrial discharge (including spills from vessels and drilling operations) as a threat. Action Area A.4 Minimise chemical and terrestrial discharge: Note: none of the 22 marine turtle stocks identified have nesting or foraging habitat within the Environmental Planning Area. Identifies light pollution as a threat where it disrupts critical nesting and hatching behaviours. Action Area A.8: Minimise light pollution: Note: none of the 22 marine turtle stocks identified have nesting or foraging habitat within the Environmental Planning Area. from multiple sources of onshore and offshore light pollution. Identifies vessel disturbance as a threat where it disrupts benthic feeding and internesting behaviours, particularly in shallow coastal foraging habitats; and noise interference as a threat (including vessel movements and noise from oil and gas infrastructure) which may lead to avoidance of important habitat for marine turtle stocks. Action Area A.1: Maintain and improve efficacy of legal and management protections. None of the 22 marine turtle stocks identified have nesting or foraging habitat within the Environmental Planning Area.
Conservation Management Plan for the Blue Whale - A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999, 2015-2025 (DOE, 2015)	Long-term recovery objective for blue whales is to minimise anthropogenic threats to allow for their conservation status to improve so that they can be removed from the EPBC Act threatened species list. Identifies noise interference as a threat, with industrial and shipping noise rated as minor risks when taking a precautionary approach. Management Action Area A.2: Assessing and addressing anthropogenic noise: • Assessing the effect of anthropogenic noise on Blue Whale behaviour. • Anthropogenic noise in biologically important areas will be managed such that any Blue Whale continues to utilise the area without injury and is not displaced from a foraging area. Identifies vessel disturbance as a key threat, with vessel collision rated as a high risk. Management Action Area A.4: Minimising vessel collisions: • Ensure all vessel strike incidents are reported in the National Ship Strike Database. • Ensure the risk of vessel strikes is considered when assessing actions that increase vessel traffic in areas where blue whales occur and, if required, appropriate mitigation measures are implemented. Identifies habitat modification as a threat, with no explicit relevant objectives or management actions identified.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Conservation Management Plan for the Southern Right Whale - A Recovery Plan under the Environment Protection and Biodiversity Conservation Act 1999, 2011-2021 (DSEWPC, 2012)	Long-term recovery objective is to minimise anthropogenic threats to allow the conservation status of the southern right whale to improve so that it can be removed from the threatened species list under the EPBC Act. Identifies marine debris resulting in entanglement as a moderate risk threat to the southeast population, with no directly relevant objectives or management actions identified. Identifies vessel disturbance as a high risk threat to the southeast population. Management Action A5: addressing vessel collisions: • Develop a national ship strike strategy that quantifies vessel movements within the distribution ranges of southern right whales and outlines appropriate mitigation measures that reduce impacts from vessel collisions. Identifies noise interference as a high risk threat to the southeast population. Management Action Area A.2: Assessing and addressing anthropogenic noise (shipping, industrial): Improve the understanding of what impact anthropogenic noise may have on southern right whale populations by: • Assessing anthropogenic noise in key calving areas. • Assessing responses of southern right whales to anthropogenic noise. • If necessary, developing further mitigation measures for noise impacts. Identifies habitat modification from acute chemical discharge as a low risk threat, with no explicit relevant objectives or management actions identified.
Recovery Plan for the White Shark (Carcharodon carcharias) (DSEWPC, 2013)	The recovery plan does not identify anthropogenic noise as a threat. Identifies habitat degradation (e.g. through pollution) as a threat with no explicit relevant objectives or management actions.
National Recovery Plan for the Australian Grayling (Prototroctes maraena) (DSE, 2008)	The recovery plan does not identify anthropogenic noise as a threat. Identifies poor water quality as a threatening process however does not explicitly identify pollution as a source of habitat degradation.

National Recovery Plan for Threatened Albatross and Giant Petrels 2011-2016 (DSEWPC, 2011)	Overall objective to ensure the long term survival and recovery of albatross and giant petrel populations breeding and foraging in Australian jurisdiction by reducing or eliminating human related threats at sea and on land.
	Marine pollution is explicitly identified as a potential threat to long term survival in the wild of Albatross and Giant Petrels identified within this plan. With relevant management actions identified:
	• Where feasible, population monitoring programs also monitor, in a standardised manner, the incidence of
	  ○ Oiled birds at the nest
	  ○ Marine debris egestion/entanglement at the nests
	  ○ Eggshell thinning.

Recovery Plan for the White Shark (Carcharodon carcharias) (DSEWPAC, 2013)	Sets out research and management actions to stop the decline of, and support the recovery of, listed threatened species or threatened ecological communities, with the aim of maximising long-term survival in the wild. No relevant threats identified to species long term survival.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
National Recovery Plan for the Orange-bellied Parrot (Neophema chrysogaster)	Sets out research and management actions to stop the decline of, and support the recovery of, listed threatened species or threatened ecological communities, with the aim of maximising long-term survival in the wild. Identifies threats from barriers to migration and movement, though there is little more than anecdotal evidence for impacts. Individuals may be killed by flying into barriers, or behaviour may be modified by the presence of barriers, leading to avoidance of some habitat. Barriers may include wind energy turbines, powerlines and associated infrastructure, aircraft including small recreational aircraft, illuminated structures and illuminated boats. The impacts of these barriers may be greatest where they occur on migration routes, where a large portion of the population may be exposed to the barrier during a key life stage.
National Recovery Plan for the Dwarf Galaxias (Galaxiella pusilla)	No relevant threats identified to species long term survival.
Recovery Plan for the Grey Nurse Shark (Carcharias Taurus)	Identifies habitat degradation (e.g. through coastal development, pollution and introduced species) as a threat to species long-term survival. Relevant management action identified to review and assess the potential threat of introduced species and pollutants.
Recovery Plan for Three Handfish Species	Identifies habitat degradation (from marine and coastal developments and pollution) as a principal threat to the species identified in the plan. No explicit relevant objectives or management actions.
Recovery Plan for the Australian Sea-lion (Neophoca cinerea)	Identifies factors that may be contributing to the lack of population recovery including pollution and oil spill, and vessel strike. Relevant management action includes implementation of jurisdictional oil spill response strategies as required.
Recovery plan for the Gould's Petrel (Pterodroma leucoptera leucoptera)	The plan refers to oil spills, stating that oceanic oil spills may pose some risk give in oceanic feeding habits. No explicit relevant objectives or management actions.
Recovery Plans / Conservation Advice for other listed threatened and/or migratory MNES species	Recovery Plans / Conservation Advice for other species that may occur in the relevant EMBAs do not identify relevant (e.g. environmental pollution) threats to species long term survival or have any explicit relevant objectives or management actions.
National Recovery Plan for the Australian Fairy Tern (Sternula nereis nereis)	In the event of an oil spill or ship-related oil spills, the Australian Fairy Tern could be potentially threatened due to the proximity of the species' coastal breeding and inshore feeding habitats to known and potential offshore oil facilities, shipping facilities and sea routes (TSSC 2011). No explicit relevant objectives or management actions provided.
Conservation Advice established under the EPBC Act: provides guidance on immediate recovery and threat abatement activities that can be undertaken to ensure the conservation of a newly listed species or ecological community.	

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Conservation Advice Balaenoptera borealis Sei Whale (TSSC, 2015)	Provides threat abatement activities that can be undertaken to ensure the conservation of the sei whale Identifies anthropogenic noise and acoustic disturbance as a threat with no explicit relevant objectives. Relevant management action: • Once the spatial and temporal distribution (including biologically important areas) of Sei Whales is further defined an assessment of the impacts of increasing anthropogenic noise should be undertaken on this species. Identifies vessel strike as a key threat with no explicit relevant objectives. Management action: Minimising vessel collisions: • Develop a national vessel strike strategy that investigates the risk of vessel strikes on Sei Whales and also identifies potential mitigation measures. • Ensure all vessel strike incidents are reported in the National Vessel Strike Database Identifies habitat degradation including pollution as a threat with no explicit relevant objectives or management actions.
Conservation Advice Balaenoptera physalus Fin Whale (TSSC, 2015)	Provides threat abatement activities that can be undertaken to ensure the conservation of the fin whale. Identifies anthropogenic noise and acoustic disturbance as a threat with no explicit relevant objectives. Relevant management action: • Once the spatial and temporal distribution (including biologically important areas) of Fin Whales is further defined an assessment of the impacts of increasing anthropogenic noise (including from seismic surveys, port expansion, and coastal development) should be undertaken on this species. Identifies vessel collision as a key threat with no explicit relevant objectives. Management action: Minimising vessel collisions: • Develop a national vessel strike strategy that investigates the risk of vessel strikes on Sei Whales and also identifies potential mitigation measures. • Ensure all vessel strike incidents are reported in the National Vessel Strike Database. Identifies pollution (persistent toxic pollutants) as a threat with no explicit relevant objectives or management actions.
Conservation Advice for Megaptera novaeangliae (Humpback Whale) (TSSC, 2015)	Provides threat abatement activities that can be undertaken to ensure the conservation of the humpback whale. Identifies noise interference as a threat with no explicit relevant objectives. Relevant management actions: • For actions involving acoustic impacts (example pile driving, explosives) on Humpback Whale calving, resting, feeding areas, or confined migratory pathways site specific acoustic modelling should be undertaken (including cumulative noise impacts). • Should acoustic impacts on Humpback calving, resting, foraging areas, or confined migratory pathways be identified a noise management plan should be developed. Identifies habitat degradation including coastal development and port expansion as a threat with no explicit relevant objectives or management actions.
Conservation Advice Rhincodon typus (Whale Shark) (TSSC, 2015)	Identified marine debris and boat strike from large vessels as significant threats. No explicit relevant objectives or management actions.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Conservation Advice Megaptera novaeangliae Humpback Whale (TSSC, 2015)	Identifies noise interference (including from industrial noise and shipping noise), entanglement from marine debris and vessel disturbance and strike as threats with no explicit relevant objectives. Management actions: • For actions involving acoustic impacts (example pile driving, explosives) on humpback whale calving, resting, feeding areas, or confined migratory pathways site specific acoustic modelling should be undertaken (including cumulative noise impacts). • All collisions with whales in Commonwealth waters are reported to the National Ship Strike Database. • Ensure the risk of vessel strike is considered when assessing actions that increase vessel traffic in areas where humpback whales occur and, if required appropriate mitigation measures are implemented to reduce the risk of vessel strike.
Conservation Advice for Giant Kelp Marine Forests of South East Australia	No relevant threats identified to species long term survival.
Conservation Advice for the Black rock-cod (Epinephelus daemelii)	No relevant threats identified to species long term survival.
Conservation Advice for the Australian Sea Lion (Neophoca cinerea)	Identifies entanglement in marine debris, habitat degradation from oil spills and noise as threats. Relevant conservation and management priorities include all vessels to have oil spill mitigation measures in place and implement jurisdictional oil spill response strategies as required.
Conservation Advice for the Southern Elephant Seal (Mirounga leonine)	Identifies some potential for entanglement and increasing exposure to chemical pollution that may cause stress or impair health and potentially increase disease risks for individuals. No explicit relevant objectives or management actions.
Conservation Advice for the Subantarctic fur seal (Arctocephalus tropicalis)	Identifies some vulnerability to chemical pollution that can cause stress, impair health and potentially increase disease. No explicit relevant objectives or management actions.
Conservation Advice for the Australian painted-snipe (Rostratula australis)	No relevant threats identified to species long term survival.
Conservation Advice for the Bar-tailed Godwit (northern Siberian) (Limosa lapponica menzbieri)	Identifies habitat loss and habitat degradation (through environmental pollution), pollution/contamination and direct mortality as a consequence of oil spill as a threat.
Conservation Advice for the Blue Petrel (Halobaena caerulea)	No relevant threats identified to species long term survival.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Conservation Advice Calidris canutus (Red Knot)	Environmental pollution is explicitly identified as a potential threat to Red Knot due to potential impacts on habitat loss and habitat degradation. Further oil spills are identified as a source of direct morality within this plan. With pollution/contamination identified as a having potential to adversely affected migratory shorebirds, both on passage and in non-breeding areas. No explicit relevant objectives or management actions provided.
Conservation Advice Curlew Sandpiper (Calidris ferruginea)	Environmental pollution is explicitly identified as a potential threat to due to potential impacts on habitat loss and habitat degradation. Environmental pollution identified to be of particular concern around settled areas may have reduced the availability of food and at migratory staging sites. Key staging site for Curlew Sandpiper includes the Yellow Sea, China and as such occurs outside of the EMBA. No explicit relevant objectives or management actions provided.
Conservation Advice for the Great Knot (Calidris tenuirstris)	Identifies habitat loss and habitat degradation (through environmental pollution), pollution/contamination and direct mortality as a consequence of oil spill as a threat. No explicit relevant objectives or management actions provided.
Conservation Advice for the Greater Sand Plover (Charadrius leschenaultii)	Identifies habitat loss and habitat degradation (through environmental pollution), pollution/contamination and direct mortality as a consequence of oil spill as a threat. No explicit relevant objectives or management actions provided.
Conservation Advice for the Lesser Sand Plover (Charadrius mongolus)	Identifies habitat loss and habitat degradation (through environmental pollution), pollution/contamination and direct mortality as a consequence of oil spill as a threat. No explicit relevant objectives or management actions provided.
Conservation Advice for Eastern Curlew (Numenius madagascariensi)	Environmental pollution is identified as a threat to due to potential impacts on habitat loss and habitat degradation, of particular concern around settled areas may have reduced the availability of food, along migratory routes. Conservation Advice suggest the Yellow Sea to Australia migration leg is usually undertaken in a single direct flight, with many birds arriving in eastern Australia appearing to move down the coast until mid-February, arriving in southern Tasmania mostly around late August to early October; later arrivals, probably of juveniles, occur until December. No explicit relevant objectives or management actions identified.
Conservation Advice for Pachyptila tutur subantarctica (Fairy Prion Southern)	No relevant threats identified to species long term survival.
Conservation Advice for Pterodroma Mollis (Soft-plumaged Petrel)	No relevant threats identified to species long term survival.
Conservation Advice for the Swift Parrot (Lathamus discolor)	No relevant threats identified to species long term survival.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Conservation Advice Thinornis rubricollis rubricollis (Hooded Plover Eastern)	Oil spills, entanglement and injection of marine debris are identified as a threats to Hooded Plover. Management action identified being to prepare oil spill response plans to ensure effective rehabilitation of oiled birds.
Fisheries Plans	
Orange Roughy (Hoplostethus atlanticus) Stock Rebuilding Strategy 2022	Primary objective is to return all orange roughy stocks to levels where they can be harvested in an ecologically sustainable manner consistent with the Commonwealth Fisheries Harvest Strategy Policy and to ultimately maximise the economic returns to the Australian community. No relevant threats identified to species long term survival.
Blue Warehou (Seriolella brama) Stock Rebuilding Strategy 2014	The strategy aims to rebuild the stocks to their biomass limit reference point (AFMA, 2014). No relevant threats identified to species long term survival.
Giant Crab Management Plan (Vic) 2010	Sets out arrangements to manage the commercial catch at levels that prevents overfishing, allows stocks to rebuild and reduces the risk of lower stock abundance. Identifies three main management objectives, being: • Sustainability of the giant crab resource • Resource access and utilisation • Cost-effective and participatory management. No relevant threats identified to species long term survival.
Victorian Rock Lobster Fishery Management Plan (Vic) 2017	Identifies five objectives for the rock lobster fishery: • Ensure the sustainability of the rock lobster resource. • Ensure a fair and equitable allocation of the rock lobster resource. • Ensure optimal economic utilisation of the rock lobster resource. • Cost-effective and participatory management • Maintain the ecological integrity of the fishery ecosystem. No relevant threats identified to species long term survival.
Government Guidelines, Guidance Notes and Information Papers	
National Light Pollution Guidelines (CoA, 2020)	Aims to manage artificial light so wildlife is: • Not disrupted within, nor displaced from, important habitat • Able to undertake critical behaviours such as foraging, reproduction and dispersal. Recommend always using best practice lighting design to reduce light pollution and minimise the effect on wildlife and undertaking an environmental impact assessment for effects of artificial light on listed species for which artificial light has been demonstrated to affect behaviour, survivorship or reproduction.
National biofouling management guidelines for the petroleum production and exploration industry (DAFF, 2009)	Includes the following for operators of petroleum industry related vessels, equipment and infrastructure: • Evaluation of biofouling risk of types of structures/facilities • Guidance on biofouling management and decommissioning • Recording and reporting. Aligns with the IMO Biofouling Guidelines.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna (DoEE, 2017)	Objectives are to acquire data, determine risks of vessel strike and identify mitigation measures, with the target audience being government agencies responsible for the regulation of marine fauna or vessel activities, industry and those involved in policy development or managing activities in the marine environment.
2011 Guidelines for the Control and Management of Ships Biofouling to Minimise the Transfer of Invasive Aquatic Species (the IMO Biofouling Guidelines) (IMO, 2011)	Provides internationally agreed guidance on how to minimise biofouling on vessels through application of biofouling prevention measures and hull husbandry practices provide a basis upon which operators can develop a vessel-specific biofouling management plan (BFMP) which: • Provides specific details of the antifouling technology used, including antifouling paints and MGPS and how and when they are operated where relevant. • Describes the operating conditions suitable for the chosen technology. • Describes the operational profile of the vessel including operating speeds and time spent stationary. • Provides details of the areas of the hull that are particularly susceptible to biofouling, such as niche areas, and how the technology applied addresses this increased risk. • Provides information relating to the schedule of planned inspections, repairs, maintenance, inspection, and renewal of antifouling systems as well as circumstances by which opportunistic inspection to monitor efficacy might occur. • Describes the documentation required to verify any treatments and activities recorded in the biofouling record book.
Marine Pest Plan 2018-2023: National Strategic Plan for Marine Pest Biosecurity (2018-2023) (CoA, 2018)	Provides Australia's national strategic plan for marine pest biosecurity and outlines a coordinated approach to building Australia's capacity to manage the threat of marine pests over five years. The key relevant objective is to minimise the risk of marine pest introduction, establishment and spread.
Reducing marine pest biosecurity risks through good practice biofouling management (IP1899, NOPSEMA, 2022)	NOPSEMA Information Paper intending to: • Clarify biosecurity requirements relevant to offshore activities. • Provide coordinated good practice advice that is consistent with the expectations of all jurisdictions responsible for regulating biofouling management within the Australian marine environment. • Support the industry's contribution to marine pest risk management consistent with Australia's Marine Pest Plan 2018-2023 (CoA 2018).
Marine Biosecurity Management of Vessels Servicing the Offshore Industry (MIAL, 2020)	Reference case developed by Maritime Industry Australia Ltd (MIAL) for use in the development of Environment Plans by titleholders for offshore resource activities located in Commonwealth waters. Applies to vessels used in the offshore resources industry, and not to offshore installations or trading ships.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Environment plan decision making guideline (NOPSEMA, 2022)	Set out NOPSEMA's considerations in making decisions in accordance with the legislated criteria relevant to EPs. This guideline: • Communicates the key factors that influence NOPSEMA's decision making in relation to decision making criteria for acceptance criteria for EPs (r 10A). • Includes interpretation arising from the Federal Court appeal decision Santos NA Barossa Pty Ltd v Tipakalippa [2022] as it relates to NOPSEMA's decision making under R10A. • Provides information for proponents and stakeholders to understand NOPSEMA's regulatory decision making. • Imparts transparency on the way in which NOPSEMA's EP regulatory decisions are made.
Consultation in the course of preparing an Environment Plan guideline (NOPSEMA, 2022)	Support clarity and transparency on the legal requirements, including recent case law, for consultation by titleholders in the course of preparing their Environment Plans prior to submission to NOPSEMA. The guideline will also support clarity and transparency around what NOPSEMA will take into consideration when assessing and deciding whether the consultation requirements of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations) have been met.
Responding to public comment on environment plans guidance note (-GN1847, NOPSEMA, 2022)	Provides assistance to titleholders in understanding the public comment process for exploratory drilling EPs. It applies solely to EPs prepared for assessment under the Environment Regulations.
Environment plan content requirements guidance note (N1344, NOPSEMA, 2020)	Interprets the EP content requirements that need to be met and demonstrated under the Environment Regulations and provides advice in relation to EP content requirements, the regulatory intent of content requirements, core concepts that are fundamental to each key content requirement and associated EP content considerations.
Oil pollution risk management (GN1488, NOPSEMA, 2021)	Provides titleholders with clarification on the regulatory requirements for oil pollution risk assessment as well as the content and level of detail required in an oil pollution emergency plan (OPEP).
Source control planning and procedures information paper (IP1979, NOPSEMA, 2021)	Describes NOPSEMA expectations with regards to source control planning content of the Environmental Plan (EP), Well Operating Management Plan (WOMP) and the Source Control Emergency Response Plan (SCERP), and to describe the regulatory assessment focus of the EP and WOMP and the compliance monitoring inspection process and focus of the SCERP.
Operational and scientific monitoring programs information paper (IP1349, NOPSEMA, 2020)	Provides information and general advice to assist titleholders to plan for and implement Operational and Scientific Monitoring Programs (OSMPs) for oil spills from offshore activities. More specifically, this Information Paper: • Sets out general principles and practical advice to assist titleholders in their planning for, and application of, fit-for-purpose OSMPs. • Addresses findings and recommendations of the Montara Commission of Inquiry, and implements the Final Australian Government Response to the Inquiry in relation to environmental monitoring for petroleum activities • Incorporates lessons learned from recent marine oil spills, where relevant; and • Captures information relevant to matters protected under the EPBC Act.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species (DEE, 2017)	Developed under EPBC Act Policy Statement 3.21 to assist proponents in avoiding, assessing and mitigating significant impacts on migratory shorebirds listed under the EPBC Act, and is a key action under the Wildlife Conservation Plan for Migratory Shorebirds. Identifies that direct mortality of birds may result from a variety of activities including oils spills and actions that introduce risk of mortality in important habitat may result in a significant impact to shorebirds.
Cumulative impact assessment guidelines for state significant projects (NSW, 2022)	Aims to strengthen project-level cumulative impact assessment (CIA) for significant projects (in NSW). Provides general guidance on processes to consider impacts from a proposed project in combination with other future projects that are anticipated or reasonably foreseeable.
Advice Note 17: Cumulative effects assessment relevant to nationally significant infrastructure projects (UK, 2019)	Sets out a staged process for conducting cumulative impact assessment by: • Establishing the long list of other existing development and/or approved development • Establishing a short list of other existing development and/or approved development • Gathering information on location, design, program activities and environmental assessments • Conducting the assessment and evaluating significance • Describing mitigation and monitoring measures.
Industry Guidelines	
Environmental management in the upstream oil and gas industry (IOGP-IPIECA, 2020)	Provides a detailed overview of environmental management practices in the upstream oil and gas industry, with the primary focus on managing risks from potential impacts to the natural environment during exploration and production of oil and gas.
Environmental, Health and Safety Guidelines for Offshore Oil and Gas Development (World Bank Group, 2015)	Includes information relevant to exploratory drilling and ancillary and support operations including industry-specific impacts and management for e.g. air emissions, wastewater discharges, noise generation, spills, etc. They also address potential onshore impacts that may result from offshore oil and gas activities.
Environmental Manual for Worldwide Geophysical Operations (IAGC, 2013)	Provides guidance for all kinds of geophysical surveys (including seabed surveys). Of particular relevance are Section 8.4 (Travel – water travel) – maintain a lookout for, and establish communications with local fishing boats, tourist diving vessels, etc, where possible to minimise interruption with their operations and equipment.
Aerial Observations of Marine Oil Spills Technical Information Paper (ITOPF, 2011)	Presents advice and guidance on conducting effective aerial reconnaissance which are an important element of an effective response to most oil spills, for assessing the location and extent of contamination and verifying predictions of the movement and fate of oil slicks at sea. Aerial surveillance provides information facilitating deployment and control of operations at sea, the timely protection of sites along threatened coastlines and the preparation of resources for shoreline clean-up.

Title	Objectives/Actions relevant to Otway Exploration Drilling Program
Aerial Observations of Oil Spills at Sea Good Practice Guideline (IPIECA/OGP, 2015)	Summarises a consensus of industry and government viewpoints on Aerial Observations of Oil Spills at the time of writing, to detect, characterise and quantify spilled oil that may be present in a range of settings (on-water, in-water and onshore). This enables the incident command to effectively determine the scale and nature of the oil spill incident, make decisions on where and how to respond, control various response operations and, over time, confirm whether or not the response is effective.
In-water Surveillance of Oil Spills at Sea Good Practice Guidelines (IPIECA/ IOGP, 2016)	Summarises current views on good practice for a range of oil spill preparedness and response topics to help align industry practices and activities, inform stakeholders, and serve as a communication tool to promote awareness and education. Topics include surveillance, subsea response, communicating data and information and innovations and future developments.
Contingency Planning for Oil Spills on Water Good Practice Guidelines (IPIECA/IOGP, 2015)	Provides guidance on the contingency planning process for potential oil spills in or on water following an accidental release of oil to a marine or aquatic environment, whether that be during the handling, transport, production or storage of oil products.

ConocoPhillips Australia

Otway Exploration Drilling Program

Preliminary Impact and Risk Assessment

ASSIGNMENT P100273-S02
DOCUMENT P-100273-S02-A-REPT-001

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REVISIONS & APPROVALS

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1 INTRODUCTION

ConocoPhillips Australia is planning to undertake exploration activities in offshore permits VIC/P79 and T/49P located in Commonwealth waters. The ConocoPhillips Australia Otway exploration drilling program (the exploration program, or activity) consists of seabed surveys and the drilling of up to six exploration wells. The proposed activities are a continuation of ConocoPhillips Australia's exploration program in the offshore Otway Basin which aims to identify commercially viable natural gas reserves to help meet Australia's energy needs. This preliminary environmental impact and risk assessment (preliminary assessment) has been prepared to support the environmental management of the proposed exploration program and follows a standardised methodology for identifying environmental impacts and risks and determining their relative significance for further assessment.

1.1 Purpose

The purpose of this preliminary assessment is to:

- Establish the context within which the assessment of environmental impacts and risks will be undertaken, including:
    - Identifying regulatory and other requirements that apply to the activity;
    - Describing the activity;
    - Describing the existing environment and key environmental values and sensitivities (including people and communities, the heritage value of places, and their social and cultural features) which may be affected by the proposed activity.
- Perform an initial evaluation of environmental impacts and risks associated with the activity.
- Identify any significant environmental impacts and risks, and
- Outline the full environmental assessment approach that will be applied in the Environment Plan (EP).

The findings of this preliminary assessment will be used to inform ongoing EP development and consultation, particularly in relation to the identification of mitigation measures and management strategies. This preliminary assessment forms the basis for the full environmental impact and risk assessment (full environmental assessment), which will be documented in the EP, and informs the need for studies and investigations to improve predictions of impacts and risks.

1.2 Environmental Planning Area

An Environmental Planning Area (EPA) has been established to support the identification of:

1. Marine and coastal environmental values and sensitivities, and
2. Persons and organisation with functions, interests and activities.

The EPA has been expanded to be of sufficient size to ensure that all potential interactions between values/sensitivities, functions/interests/activities and exploration activities can be identified. The EPA and ConocoPhillips Australia's offshore petroleum titles (permit areas) VIC/P79 and T/49P are shown in Figure 1-1 (along with the operational areas defined in the Design Envelope section).

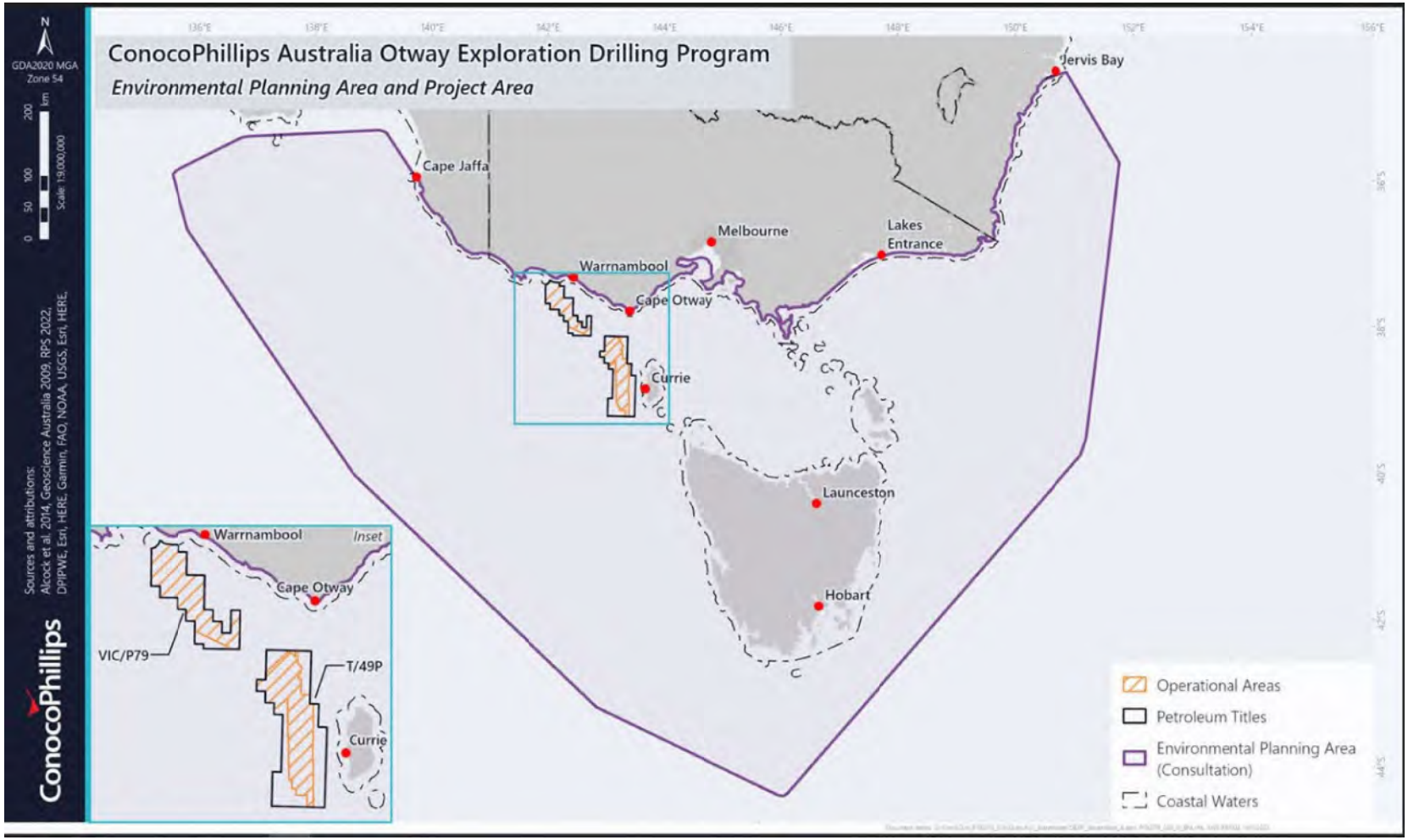


Figure 1-1: Environmental planning area, petroleum titles and operational areas

1.2.1 Definitions and Terms

Definitions and terms used through-out the preliminary impact and risk assessment are detailed in Table 1-1.

Table 1-1: Terms and definitions relevant to impact and risk assessment

TERM	DEFINITION
Acceptable level	The specified amount of environmental impact and risk that an activity may have which is tolerable, is consistent with all relevant principles, and does not compromise the management/conservation/protection objectives of the environment.
Activity	Refers to a 'petroleum activity' as defined under the OPGGS(E)R as: petroleum activity means operations or works in an offshore area undertaken for the purpose of exercising a right conferred on a petroleum titleholder under the Act by a petroleum title or discharging an obligation imposed on a petroleum titleholder by the Act or a legislative instrument under the Act. For the Otway Exploration Drilling Program the 'activity' includes seabed surveys and the drilling of up to 6 exploration wells, and the use of a drilling rig, vessels and associated equipment.
As low as reasonably practicable (ALARP)	The ALARP principle refers to reducing impacts and risk to a level that is 'as low as reasonably practicable'. In practice, this means that the titleholder has to show through reasoned and supported arguments that there are no other practicable options that could reasonably be adopted to reduce impacts and risks further, i.e. to demonstrate that the cost involved in reducing the impact or risk further would be grossly disproportionate to the benefit gained.
Consequence ** Linked to nature and scale*	The consequence of an impact or risk is the potential outcome of the event on affected receptors (particular values and sensitivities) and can be positive, neutral or negative.
Control measure	A system, an item of equipment, a person or a procedure, that is used as a basis for managing environmental impacts and risks.
Emergency condition	An unplanned event that has the potential to cause significant environmental damage or harm to matters of national environmental significance (MNES). An environmental emergency condition may, or may not, correspond with a safety incident considered to be a Major Accident Event (MAE).
Environment (Values and Sensitivities) ** Linked to receptors*	Defined under the OPGGS(E)R as: (a) ecosystems and their constituent parts, including people and communities (b) natural and physical resources (c) the qualities and characteristics of locations, places and areas, and (d) the heritage value of places and includes: (e) the social, economic and cultural features of the matters mentioned above.
Environmental aspect	Element of an activity that interacts or can interact with the environment. Environmental aspects can have a direct impact on the environment, contribute only partially or indirectly to a larger environmental change or create a risk to one or more environmental receptors. Aspects can be planned (inherent part of the activity i.e., light) or unplanned (not part of the activity i.e., spill).
Environmental hazard	A potential source of harm or damage to the environment, human health or safety.
Environmental impact	A change to the environment, whether adverse or beneficial, that wholly or partly results from an activity.

TERM	DEFINITION
Environmental performance	The performance of a titleholder in relation to the Environmental Performance Outcomes (EPO) and Environmental Performance Standards (EPS) in an Environment Plan.
Environmental performance outcome (EPO)	A measurable level of performance required for the management of environmental aspects of an activity to ensure that environmental impacts and risks will be of an acceptable level.
Environmental performance standard (EPS)	A statement of the performance required of a control measure.
Environmental risk	A change which could occur to one or more environmental receptors, that is caused either wholly or partly by one or more environmental aspects associated with an activity. Environmental risks have a degree of likelihood, and are not certain to occur.
Functions, interests and activities	A function refers to a power or duty to do something. Interests are any interest possessed above that of the general public. Activities are things a person or group already does.
Inherent impact and risk	The level of impact or risk with 'legislative and other requirement' controls in place, before the application of additional control measures.
Likelihood	The likelihood is the chance (or probability) of the consequence occurring, and only applies to risks.
Measurement criteria	A clear and objective way to evaluate environmental performance. Define how environmental performance will be measured and determine whether the environmental performance outcomes and environmental performance standards have been met during the activity.
*Nature and scale	The nature and scale of environmental impacts and risks is determined by an assessment of: Extent: the area that will be affected by an impact or may be affected by a risk Severity: the level of environmental impact or risk determined by the consequence category, and Duration: How often (frequency) and how long an impact will, or risk may, interact with the environment.
Residual impact and risk	The impact or risk remaining after additional control measures have been applied (i.e. after treatment of inherent impacts and risks)
*Receptors	Features of the environment that may be affected by impacts and risks.
Significant impact	An impact which is important, notable or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment, which is impacted, and upon the intensity, duration, magnitude, and geographic extent of the impacts (DAWE, 2013).

1.3 METHODOLOGY

ConocoPhillips assessment methodology, outlined in Figure 2-1, aims to provide a structured process for identifying, assessing and managing environmental impacts and risks associated with an offshore petroleum activity. The methodology has been designed to align with AS/NZS ISO 31000:2018: Risk Management – Principles and Guidelines, and the requirements of the OPGGS(E) Regulations.

The first few steps in this methodology – Establishing the Context, Identifying and Analysing Impacts and Risks and Evaluating Impacts and Risks (in part) – are outlined in this preliminary assessment report. Information on the remaining steps will be provided as EP development and consultation progress.

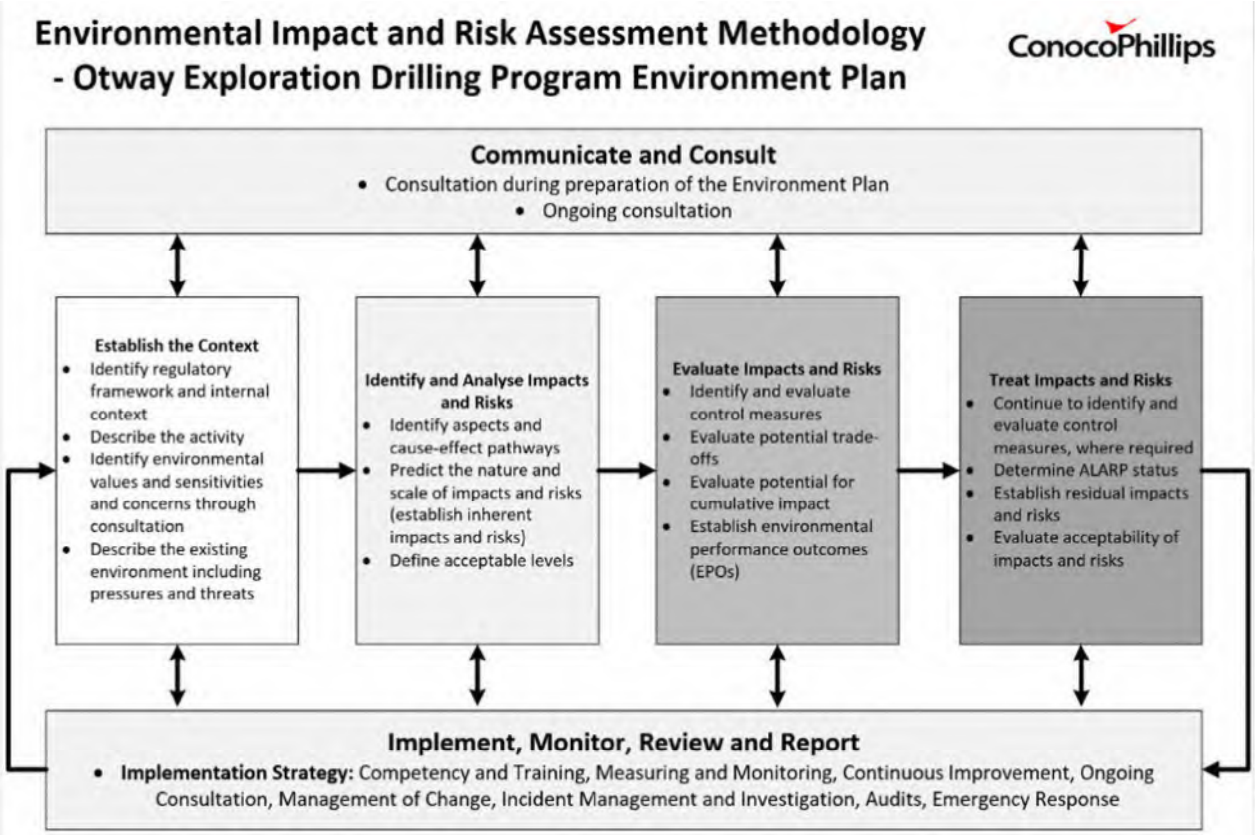


Figure 1-2: Environmental impact and risk assessment methodology (adapted from NOPSEMA (2020))

2 ESTABLISHING THE CONTEXT

Context for impact and risk assessment has been established by:

- Understanding the legislative framework within which the activity takes place, and other environmental requirements, to support framing of impact and risk assessments and the establishment of acceptable levels of impact and risk (Section 2.1).
- Developing a description of the activity to allow for the identification of planned and unplanned aspects that may cause impacts and create risks (Section 3).
- Collecting and analysing data to support the identification of environmental values and sensitivities to describe the environment within which the activity will take place, including the existing condition and historical current pressures (Sections 2.2 and 2.4), and
- Inviting feedback through consultation and incorporating this into the understanding of environmental values and sensitivities and the design of the activity, where relevant (Section 2.2).

2.1 Environmental Legislation and Other Requirements

Legislative and other environmental requirements that apply to the activity are taken into account, and provide important context for, the evaluation of environmental impacts and risks.

The primary legislation governing the exploration project is the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (the Act) and the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (OPGGS(E) Regulations (the Regulations). Other environmental requirements could include laws, codes, standards, agreements, treaties, conventions or practices (in whole or in part), that apply to the jurisdiction in which the activity takes place.

Legislative and other environmental requirements have been collated and will be made available via ConocoPhillips Australia's Otway Consultation Hub. Some of these are discussed within this preliminary assessment, where they are relevant to the management of environmental impacts and risks.

2.2 Data Collection and Analysis

Current literature and other published data (including protected matter searches, fisheries data and other government mapping information) have been reviewed to gather information on the Environmental Planning Area, including baseline environmental conditions. Some of the environmental features identified through a review of publicly available data, for example protected matters searches, can be viewed via the Otway Consultation Hub's interactive map.

Consultation for the exploration program has commenced and it is anticipated that additional information on environmental values and sensitivities will be generated through this process. This preliminary assessment will be published to help inform consultation on the environmental aspects of the activity.

2.3 Activity Description – Otway Exploration Drilling Program

Since the 1970's, exploration activities in the Otway Basin have resulted in onshore and offshore gas discoveries. Within the Victorian portion of the Otway Basin, all of the commercially viable gas discoveries to-date have been found onshore and offshore around the Peterborough – Port Campbell region. Currently, natural gas is produced from fields in the offshore portion of the Otway Basin, and depleted onshore gas fields near Port Campbell are used for underground gas storage. Natural gas from the offshore Otway Basin services Melbourne, regional centres across Victoria as well as the wider east-coast gas market.

ConocoPhillips Australia is seeking to identify commercially viable natural gas reserves that can be developed to contribute towards energy security for the Australian East coast domestic market. As a titleholder, ConocoPhillips Australia has made a commitment to undertake exploration activities within timeframes agreed by the Commonwealth National Offshore Petroleum Titles Administrator (NOPTA).

ConocoPhillips Australia is proposing to undertake an exploration program that consists of seabed surveys and the drilling of up to six exploration wells in exploration permits VIC/P79 and T/49P located in Commonwealth waters offshore of Victoria and King Island, Tasmania, as described in the following sections.

2.3.1 Design, Location and Timing

The final design of the Otway exploration drilling program will be influenced by exploration objectives, environmental impact and risk assessment findings, and consultation feedback. The program consists of a number of activities which are related to seabed surveys and drilling operations which are described in more detail in Section 3.2.

At this stage, the program design can best be described using two parameters:

- The design envelope: being the broadest timeframe and spatial extent of the activity, and
- The operating envelope: which will narrow the timing and location of activities to the current best estimates.

These envelopes are expected to change over time during the environmental assessment. The nature of any change and the reasons for it will be communicated through the Otway Consultation Hub (public website) and through consultation, where relevant.

Design Envelope

The design envelope is defined by operational areas and maximum durations, as shown in Table 2-1.

Operational areas represent the broadest area within which all petroleum activities can occur. Operational areas will be located entirely within the relevant permit areas (T/49P and VIC/P79) and have been selected on the basis of similar constraints around rig selection, well design and environmental impacts and risks. The operational areas for the Otway exploration drilling program are shown in Figure 1-1. Water depths within operational areas range from 35 m to 670 m.

Vessels will traverse from coastal departure locations to the operational areas and may reside outside of the operational areas from time to time. However, vessels moving to or residing outside operational areas are not considered part of the petroleum activity until such time that they enter an operational area.

The initial activity involves completing seabed surveys over a maximum of nine locations, which will commence no earlier than 1 January 2024, subject to relevant approvals being in place. Drilling commencement is also dependent on regulatory approval and rig availability, and will commence no earlier than 1 October 2024. The term of the approval for these activities is proposed to continue until 31 December 2028, to allow for the drilling of a maximum of six exploration wells and to account for rig availability.

Table 2-1: Design envelope

PARAMETER	SEABED SURVEY	DRILLING
Earliest start date	1 January 2024	1 October 2024
Latest finish date	31 December 2028	31 December 2028
Maximum number of locations	9 (to support confirmation of final drilling locations)	6 (2 firm wells and up to 4 optional wells)
Spatial extent (within which activity can occur)	Operational Areas within T/49P and VIC/P79	Operational Areas within T/49P and VIC/P79

Operating Envelope

The operating envelope presents a narrowing of the timing and location of activities as shown in Table 2-2.

The seabed survey is predicted to take up to one week at each the nine locations, excluding vessel transit time between locations, and is expected to cover an area of 6 x 6 km around each of the proposed drilling areas.

Drilling areas will be established around each exploration well, and will be located entirely within the broader operational area. Each drilling area will be represented by a 2 km radius cautionary zone around the well site, also encompassing the 500 m Petroleum Safety Zone (PSZ). The 2 km radius drilling areas represent the area within which other marine users may be displaced while the drilling rig is on location.

Each well will take a maximum of 90 days to drill but will typically take 30-40 days. The extra time accounts for potential operational delays and environmental constraints like severe weather events. Drilling days may occur back-to-back but are more likely to occur with planned unspecified intervals to allow time for equipment deployment, weather delays, contractor downtime, equipment maintenance and movement between wells. After a well is completed the drilling rig is moved to the next location.

Table 2-2: Operating envelope

PARAMETER	SEABED SURVEY	DRILLING
Maximum duration	1 week per seabed survey location	Up to 90 days of drilling per location
Spatial extent (within which activity can occur)	324 km^2 (Nine locations, each 6 x 6 km) within Operational Areas	75 km^2 (Six locations, each a 2 km radius Drilling Area) within Operational Areas

Process to Select Final Drilling Locations

The process for selecting final drilling locations involves the completion of seismic data processing, interpretation of the data to select targets with a high probability of success, and analysis of the efficiency of the drilling program to confirm resources with the least amount of wells, and the resultant impacts and potential risks associated with each.

The timing for the completion of this process is late 2023, early to mid-2024. Consequently, ConocoPhillips Australia will undertake to assess the environmental impacts and risks associated with seabed surveys and drilling activities that may occur anywhere within the broader operational areas defined in the design envelope. This will ensure that the impacts and risks associated with all potential drilling locations are assessed, and actual seabed surveys and drilling activities will only be undertaken within the smaller spatial extents defined in the operating envelope.

2.3.2 Operational Details of the Activity

Seabed Surveys

Seabed surveys will be undertaken to assess the state of the seabed at up to 9 potential drilling and anchoring locations. Survey techniques may consist of multibeam echosounder, side scan sonar, sub-bottom profiling, magnetometry and imagery, as well as limited geotechnical sampling to validate other survey information.

Seabed surveys will be conducted by one or two vessels travelling at slow speeds during data acquisition, or stationery e.g., during geotechnical sampling. There will be a 500 m radius Safe Navigation Area (SNA) in place around survey vessel(s) and any towed equipment for the duration of activity.

In the event of unsafe environmental conditions (e.g., heavy sea state), equipment may be retrieved, and/or survey vessel(s) may transit away from the operational area to a safer location, noting that once a vessel leaves the operational area, it is no longer undertaking a petroleum activity.

Environmentally relevant details for the seabed survey to inform impact and risk assessment are provided in Table 2-3.

Table 2-3: Environmentally relevant details for seabed surveys

PARAMETER	DETAILS	ENVIRONMENTALLY RELEVANT INFORMATION
Exclusion Zone(s) around vessel(s) and any towed equipment	500 m Safe Navigation Area (SNA)	Represents the area within which other marine users will be displaced.
Total crew accommodation	20 people on board (POB)	Informs the volumes of sewage, greywater, brine and putrescible (e.g. food) wastes generated.
Endurance at sea	Varies depending on activities being conducted	Informs the maximum duration at sea, with refuelling and crew transfers occurring in-port.
Largest fuel tank	350 m^3 light fuel	Informs a worse-case credible oil spill risk in event of vessel collision.
Fuel type	Marine Diesel Oil, Marine Gas Oil	
Propulsion – Main engines and dynamic positioning	Source levels from main engines operating at all times, and dynamic positioning operating during specific activities e.g. grab sampling	Informs expected continuous (non-impulsive) sound levels during specific activities.
Propulsion and power – equipment types	Main engines, generators and bow thrusters	Result in discharges of cooling and oily bilge waters and inform the potential for water quality and associated impacts.
Lighting for navigation and safe work	Minimum required for safe operations	Informs the potential for lighting impacts.
Geotechnical survey techniques	Piezocone penetration tests (CPTu) and grab sampling	Informs the area of seabed interaction
Geophysical survey techniques	Sub-bottom profiling (representing the survey technique with the loudest sound source)	Informs a worse-case credible impulsive sound level during geophysical sampling.
Fuel consumption	7 m^3/day	Informs emissions to atmosphere.

Drilling Rig and Support Vessel Operations

Exploration wells will be drilled using a single semi-submersible mobile offshore drilling unit (MODU, rig or drilling rig). The rig will be towed into position by anchor handling support vessels (AHSVs) between either a Victorian port or another location within Commonwealth waters and the operational area. The rig will be held in position by moorings typically spread (either 8 or 12 anchors depending on the contracted rig) in a radial pattern extending from the drilling rig within the 2 km radius drilling area, and may be supplemented by a thruster assisted mooring system in heavy sea states.

Drilling involves a number of steps including:

- Movement of the drilling rig within the operational area, including entry to and exit from the area.
- Establishment and recovery of mooring equipment including the deployment and recovery of anchors and mooring lines (including potential for pre-laying anchors before the drilling rig arrives).

- Drilling conductor and surface hole sections, both of which are then cased in steel pipe and cemented in place.
- Installing a blowout preventer (BOP), an assembly of specialised safety valves put in place before drilling into the reservoir, that is used in the unlikely event of an emergency to control well pressure and prevent a loss of well control release.
- Installing a marine riser to return drilling fluids and cuttings to the rig for reconditioning, recirculation and/or discharge while drilling continues towards the target reservoir.
- Drilling and constructing the well to the target gas reservoir, with the installation of cemented casing strings, and then evaluating the geological formations to determine if they contain and can produce hydrocarbons.
- In the event that a gas hydrocarbon reservoir is discovered, the well may be tested by flowing hydrocarbons to the surface for analysis and then flaring through the flare boom.
- Contingency activities such as sidetrack drilling, re-drilling sections and re-spudding of a well.
- General operations associated with the use of a drilling rig, vessels, helicopters and remotely operated vehicles (ROVs) within the operational area.
- Permanently plugging the well with cement barriers and removing all equipment from the seafloor.

Environmentally relevant details for drilling operations, including well evaluation and testing, are provided in Table 2-4, Table 2-5 and Table 2-6 to inform impact and risk assessment. Routine emissions and discharges have been provided based on publicly available data for similar activities.

Table 2-4: Environmentally relevant details for drilling operations

PARAMETER	DETAILS	ENVIRONMENTALLY RELEVANT INFORMATION
Exclusion Zone(s)	500 m radius Petroleum Safety Zone (PSZ) 2 km radius cautionary zone	Represents the area around each drilling location within which other marine users will be displaced.
Total crew accommodation	Rig: up to 200 people on board (POB) Vessels: typically 20, but up to 60 POB each	Informs the volumes of sewage, greywater, brine and putrescible (e.g. food) wastes generated.
Endurance at sea	Varies depending on equipment and materials including bulk transfers of chemicals, wastes and supplies	Informs where activities may take place: - Resupply of the rig will occur within the operational area. - Refuelling of the rig will occur within the operational area.
Largest externally exposed fuel tank	350 m^3 light fuel	Informs a worse-case credible oil spill risk in event of vessel collision.
Fuel type	Marine Diesel Oil, Marine Gas Oil	
Rig operations	Source levels from vibrating equipment and drilling	Informs expected non-impulsive sound levels during specific activities.
Support vessel propulsion	Source levels from main engines operating at all times, and dynamic positioning operating during specific activities e.g. resupply	
Mooring system	Maximum of 12 anchors and chains	Informs the area of seabed interaction

PARAMETER	DETAILS	ENVIRONMENTALLY RELEVANT INFORMATION
	Source levels from thrusters	Informs a worse-case credible non-impulsive sound level during heavy sea states.
Propulsion and power – equipment types	Main engines, generators and bow thrusters	Result in discharges of cooling and oily bilge waters and inform the potential for water quality and associated impacts.
Lighting for navigation and safe Work	Minimum required for safe operations	Informs the potential for lighting impacts.
Flow rates to flare and duration	Maximum of 40 MMscf flow rate 120 hours per well over multiple short-term events	Informs emissions to atmosphere and light emissions.
Well evaluation techniques	Vertical Seismic Profiling (representing the evaluation technique with the loudest sound source)	Informs a worse-case credible impulsive sound level during well evaluation over a maximum 20-hour testing period.

Table 2-5: Routine emissions and discharges from the rig and support vessels

DISCHARGE TYPE	RIG TYPICAL QUANTITIES	VESSEL TYPICAL QUANTITIES (20POB)
Putrescible waste	400 kg/day (2 kg pp/day)	40 kg/day (2 kg pp/day)
Treated sewage and grey water	86 m^3/day (0.43 m^3 pp/day)	8.6 m^3/day (0.43 m^3 pp/day)
Treated oily water	80 L/day (combined)	
Treated bilge water	Limited to holding capacity of bilge on vessel and MODU (combined)	
RO brine	170 m^3/day (combined)	
Cooling water	4,800 m^3/day (combined)	
Atmospheric emissions (e-CO_2)	240 ktCO_2e (combined for seabed survey and drilling activities)	

Table 2-6: Routine drilling discharges within the operational area

DISCHARGE TYPE	TYPICAL QUANTITIES
Drilling cuttings discharged to seabed	420 m^3 per well
Drilling cuttings discharged to sea	300 m^3 per well
Water-based mud discharged to seabed	1750 m^3 per well
Water-based mud discharged to sea	2000 m^3 per well
Cement from testing, spoils and excess volumes discharged to sea	<40 m^3 per well and up to 25 m^3 excess at final well location
Cement from riserless sections discharged to seabed	30 m^3 per well

DISCHARGE TYPE	TYPICAL QUANTITIES
Hydraulic fluids from testing of the blowout preventer (BOP)	220 L of potable water with 3 % water-soluble control fluid every 7-days, and smaller volumes when latching and unlatching the BOP at the start and end of each well

Drilling operations will be supported by up to three vessels which may be present within the operational area at any one time. In addition, at least one remotely operated underwater vehicle (ROV) will be available to provide for underwater surveillance and inspection, tool deployment and emergency response support.

Aircraft, including helicopters, fixed wing planes and drones, may be used to provide support for crew changes, critical supply deliveries, surveillance and emergency response use. Helicopter operations may occur several times per week and are considered part of the petroleum activity once within the drilling area.

2.4 Existing Environment Condition

An overview of the condition of the existing environment is provided in the following sections as a reference point to evaluate the impacts and risks of the Otway exploration drilling program. The existing conditions are also used to determine the significance of the impacts and risks identified in this assessment and to identify any necessary mitigation measures, management strategies or additional baseline studies. The descriptions provided in the following sections account for the current condition of the existing environment in relation to the effects of, and threats and pressures exerted by, historical and existing activities.

The marine environment of the offshore Otway Basin, Victoria, Australia, is a diverse and dynamic ecosystem that supports a range of important physical, ecological, socio-economic and cultural activities and values. The Environmental Planning Area (EPA, Figure 1-1) encompasses a wide range of habitats including open ocean, coastal waters, rocky shores, sandy beaches, seagrass beds, and kelp forests. These habitats support a variety of marine species including fish, crustaceans, birds, marine turtles, marine mammals and seaweeds. The marine environment also supports a range of socio-economic activities (including but not limited to commercial fishing, shipping, gas production and recreational activities) and cultural values.

The area is relatively protected from human impacts, with few major industries or coastal communities in the immediate vicinity. However, the area is subject to some environmental pressures, including nutrient runoff, sedimentation and marine debris, as well as emissions and discharges from shipping and other vessel activity.

2.4.1 Physical Environment

The physical environment refers to the non-living natural elements of an ecosystem including air, water, soil, minerals and climate. These elements interact with each other and play a crucial role in shaping the biotic components of an ecosystem, influencing the distribution and diversity of plants, animals and microorganisms.

Understanding the physical environment is essential for comprehending the functioning of an ecosystem and for developing sustainable management practices that preserve and enhance the ecological, socio-economic, and

cultural values of the environment. The following components of the physical environment are considered in this preliminary assessment and will be carried through to the full assessment:

- Water Quality – Generally well mixed waters influenced by inflows from three primary water masses being the South Australian Current Water, East Australian Current Water and sub-Antarctic Surface Water, which influence local marine ecosystems owing to their different nutrient contents. In nearshore areas, water quality may be negatively affected through the discharge of polluted waters from river catchments.
- Sediment Quality – The Otway continental margin is a swell-dominated, open, cool water, carbonate platform with sediment expected to be of high quality, given the limited historical activities in this area.
- Air Quality – High air quality (as assessed at Cape Grim, Tasmania which represents one of the cleanest air sources in the world), even considering the effects of historical and existing offshore marine activities.
- Climate – A temperate climate with cool, wet winters and warm dry summers. Sea surface temperatures have increased globally over recent decades and are expected to continue to rise with estimates of warming generally in Australia of 0.4 to 1°C by 2030, with potentially much higher changes seen along the east coast of Tasmania in the longer-term projection models (median changes as large as 4°C in 2090)[1].
- Ambient Light – Artificial light emissions within the Otway Basin can be expected from both permanent (e.g. onshore/offshore development and communities) and temporary (e.g. vessel) activities.
- Ambient Sound – Natural sea sounds including physical and biological sources are expected to be the dominant source of ambient sound in the Otway Basin. Anthropogenic noise sources known to occur within the region include shipping, commercial fishing and small vessel traffic, petroleum production and exploration-drilling activities and sporadic petroleum seismic surveys.

2.4.2 Ecological Environment

The ecological environment refers to the living components of an ecosystem, including plants, animals, and microorganisms, as well as their interactions with each other and with the non-living elements of the environment. These interactions form the food webs and nutrient cycles that sustain life and maintain the stability and resilience of the ecosystem.

The ecological environment is shaped by the physical environment, as well as by historical events, such as natural disasters, evolution and human activities. Biodiversity, or the variety of species and their interactions, is a key feature of the ecological environment providing the essential functions and services that support human well-being such as food, medicine and recreation.

Understanding the ecological environment is important for conserving biodiversity, preserving the integrity and functioning of ecosystems and supporting the livelihoods of communities. The following components of the ecological environment are considered in this preliminary assessment and will be carried through to the full assessment:

- Benthic Habitats and Communities – Benthic assemblages including sandy substrates, soft sediment and rocky reefs; marine flora including algae species, seagrasses, mangroves, saltmarsh and marine canyons.

[1] *McInnes K, Monselesan D, Church J, Lenton A and O'Grady J (2015). Climate Change in Australia, Technical Report. Chapter 8: Projections (and Recent Trends) Marine and Coasts.*

- Coastal Habitats and Communities – Including rocky cliffs, sandy beaches and tidal flats.
- Plankton – As the dominant biomass of marine ecosystems and a key component in oceanic food chains, including potential implications to the Bonney and West Tasmania Upwellings.
- Invertebrates – Including Porifera (sponges), Cnidaria (e.g. jellyfish, corals, anemones, sea-pens), Bryozoa (filter feeders), Arthropoda (e.g. sea spiders, rock lobster, giant crab, krill), Mollusca (e.g. scallop, octopus, crab, lobster), Echinodermata (e.g. urchins, sea cucumbers, seastar), and Annelida (e.g. polychaete worms).
- Fish – Including threatened and commercially valued species of fish, sharks, rays and sygnathids (seahorses, pipefish, etc) and biological important areas.
- Birds – Including threatened resident and migratory seabirds, migratory shorebirds, other marine species (e.g. orange-bellied parrot and little penguin) and biological important areas.
- Marine Reptiles – including threatened species of marine turtles.
- Marine Mammals – Including low-frequency cetaceans (e.g. baleen whales including the blue whale, southern right whale, fin and sei whales and humpback whales – among others), high-frequency cetaceans and pinnipeds (e.g. Australian and New Zealand fur-seals, sea lions and elephant seals) and biological important areas.
- Conservation Values and Sensitivities – Including, for example, Australian Marine Parks (AMPs) like the Zeehan Marine Park, marine flora including Threatened Ecological Communities (TECs) like the giant kelp marine forests of southeast Australia, and Key Ecological Features (KEFs) like the Bonney Upwelling and West Tasmania Canyons Upwelling.

2.4.3 Socio-economic Environment

The socio-economic environment refers to the social and economic relationships between people and the environment including the physical, psychological and economic elements that shape human well-being. It encompasses the communities and economies that depend on the environment for their livelihoods, health and well-being. In the context of marine areas, the socio-economic environment includes a range of activities that require a close connection to the sea and its resources.

Understanding the socio-economic environment is critical for developing effective and equitable environmental management strategies that balance the needs of people with the conservation of the environment. It involves considering the social and economic values and sensitivities that may be affected by environmental change, and undertaking consultation with relevant government authorities, persons and organisations to ensure their perspectives and needs are incorporated into decision-making processes. The following components of the socio-economic environment are considered in this preliminary assessment and will be carried through to the full assessment:

- Coastal Communities – Along the Tasmanian and Victorian coastlines.
- Offshore Petroleum Activities – Within the offshore Otway Basin.
- Offshore Renewable Energy Activities – Proposed within the Otway Basin along the Victorian coastline.
- Other Offshore Infrastructure – Along the Tasmanian and Victorian coastlines.
- Defence Activities – Both historical (e.g. munitions dumps) and ongoing activities within the offshore Otway Basin.
- Shipping – Within the offshore Otway Basin.
- Tourism – Within the offshore Otway Basin and along the Tasmanian and Victorian coastlines.

- Recreational Diving and Fishing – Along the Tasmanian and Victorian coastlines.
- Commercial Fisheries – Within the offshore Otway Basin and along the Tasmanian and Victorian coastlines.

2.4.4 Cultural Environment

The cultural environment refers to both First Nations and European cultures. The relationship between First Nations peoples and the sea often involves a deep cultural, spiritual, and economic connection, of which First Nations Peoples have a unique knowledge and understanding that has been passed down through generations. European culture encompasses historic maritime archaeological heritage.

Understanding the cultural environment is critical for developing effective and equitable environmental management strategies and involves considering cultural values and sensitivities that may be affected by environmental change, and undertaking consultation with First Nations peoples, representative organisations and marine archaeologists to ensure their perspectives and needs are incorporated into decision-making processes. The following components of the cultural environment are considered in this preliminary assessment and will be carried through to the full assessment:

- First Nations Peoples – Including consideration of the historical land bridge connecting mainland Australia to Tasmania, sea country, totemic species within the offshore Otway Basin, songlines and important sites and artefacts along the Tasmanian and Victorian coastlines.
- Native Title – recognising the rights and interests of Aboriginal and Torres Strait Islander people in land and waters according to their traditional laws and customs.
- Maritime Archaeological Heritage – Including shipwrecks within the offshore Otway Basin and along the Tasmanian and Victorian coastlines.

3 IDENTIFYING AND ANALYSISING IMPACTS AND RISKS

3.1 Cause-Effect Pathways

A cause-effect pathway refers to the chain of events that connects a specific cause to an effect. In the context of environmental impact and risk assessments, cause-effect pathways describe the relationships between environmental aspects of the activity (described in Section 2.3) and the impacts, or consequences, they could have on the existing environment (described in Section 2.4).

A cause-effect pathway typically starts with the identification of a potential hazard, such as the physical presence of an anchored drilling rig, and then examines the potential pathways by which that hazard could result in an impact – such as the generation of underwater sound at levels that can cause harm to marine life; or a risk – such as the accidental release of pollutants into the water affecting water quality.

The identification of cause-effect pathways is an important step in the assessment process, as it allows for a systematic identification of the environmental impacts and risks of a proposed activity. It also provides a basis for developing mitigation and management strategies that are directly relevant to the cause i.e. the hazard.

3.2 Aspect Identification

Environmental aspects and the identified cause-effect pathways associated with planned activities are listed in Table 3-1. Where known, at this early stage, the expected maximum spatial extent of each impact has also been identified to support an understanding of the magnitude of impacts and is used to help identify the environment that may be affected (or EMBA) within the broader Environmental Planning Area.

Table 3-1: Planned Activities – environmental aspects, cause-effect pathways, impacts and extents

ENVIRONMENTAL ASPECT	CAUSE-EFFECT PATHWAY AND IMPACTS	EXPECTED MAXIMUM SPATIAL EXTENT
Physical presence – Interference with other marine and coastal users	The physical presence of survey vessels, anchors, a drilling rig and support vessels operating in marine waters will interfere with access by other users. • Seabed surveys are undertaken by vessels over short durations (typically 1-week per location) and cover small areas. A 500 m Safe Navigation Area (SNA) will be in place around the survey vessel and any towed equipment. • Drill rigs are stationary while drilling and are attended by support vessels who monitor a 500 m Petroleum Safety Zone and larger (typically 2 km radius) cautionary area to support safe operations. Notice to Mariners are issued and standard maritime safety precautions are in place. The presence of the drilling rig may affect aesthetic values if visible from coastlines.	Smaller areas within Operational Areas: - 500m SNA - 500m PSZ and 2 km Cautionary Zone Visibility distances (to be assessed)

ENVIRONMENTAL ASPECT	CAUSE-EFFECT PATHWAY AND IMPACTS	EXPECTED MAXIMUM SPATIAL EXTENT
Seabed disturbance	The placement of anchors and equipment at the seafloor, the collection of sediment samples and the drilling of the top hole can result in direct and indirect impacts to benthic habitats and assemblages including injury or mortality to fauna, a change in water quality and habitat; and may disturb cultural values.	0.01 km^2 area[2] within a 2km radius around each well.
Artificial light	The presence of survey and support vessels and the rig undertaking night-time operations will result in artificial light emissions into the marine environment which could cause injury or mortality to fauna, affect fauna behaviour, and affect other marine and coastal users and cultural values.	20 km radius around Drilling Areas[3]
	Short-term flaring during well testing at night-time will result in artificial light emissions into the marine environment which could cause injury or mortality to fauna, affect fauna behaviour, and affect other marine and coastal users and cultural values.	>20 km radius around Drilling Areas (to be assessed)
Atmospheric emissions	Vessels, the rig, helicopters, equipment, the transfer of dry bulk materials, flaring and venting will generate atmospheric emissions which could affect ambient air quality and ecological receptors, some of which may be culturally relevant.	Localised airshed[4]
	Vessels, the rig, helicopters, equipment, flaring and venting will generate atmospheric emissions of gaseous greenhouse gas (GHG) emissions such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).	Contributing to global GHG emissions
Underwater sound	Components of the seabed survey and drilling activities will generate continuous sound and other components will generate impulsive sound. Continuous and impulsive sound can cause physiological impacts near the source and behavioural disturbance to marine fauna, some of which may be culturally relevant.	Underwater sound areas (to be assessed by modelling)
Planned discharges	The activity will result in routine discharges from vessels and the rig and drilling discharges during drilling activities. These discharges could affect ambient water quality and sediment quality, and habitat composition.	Operational Areas[4]

Environmental aspects and the identified cause-effect pathways associated with unplanned events are listed in Table 3-2 to support an understanding of environmental risks. The extent of most risks is limited to within the operational areas but some, such as the accidental release of marine fuel or loss of well control, may have affects reaching further into the Environmental Planning Area.

[2] *Based on size of typical equipment used for these activities.*
[3] *Based on recommendations within the National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds, Commonwealth of Australia 2020.*
[4] *Based on publicly available information for similar activities.*

Table 3-2: Unplanned Events – environmental aspects, cause-effect pathways and impacts

ENVIRONMENTAL ASPECT	CAUSE-EFFECT PATHWAY AND IMPACTS
Introduction and establishment of invasive marine species	Vessels that transit between ports may harbour invasive marine species that have could be introduced to other areas. Introduction and establishment could result in changes in ecosystem dynamics and changes affecting other marine users.
Interactions with marine fauna	Vessels and the rig have limited manoeuvrability at stages during the activity and may be unable to avoid collisions with marine fauna resulting in injury or mortality to fauna some of which may be culturally relevant, or may result in changes in fauna behaviour.
Loss of materials or waste overboard	Whilst undertaking the activity, unplanned releases of small quantities of waste or other materials may occur with the potential to result in injury or mortality to fauna, some of which may be culturally relevant, a change in water quality or habitat and changes affecting other marine users.
Minor loss of containment	Whilst undertaking the activity, small accidental releases of hydrocarbons or chemicals to the marine environment may occur due to minor operational failures during the activity. These events have the potential to result in injury or mortality to some species of fauna, changes in fauna behaviour, changes in ecosystem dynamics and changes affecting other marine users.
Marine diesel oil release	Whilst undertaking the activity, it is highly unlikely that an unplanned event may occur resulting in a discharge of marine fuel to the marine environment. These events have the potential to result in injury or mortality to fauna, changes in fauna behaviour, changes in ecosystem dynamics and changes affecting other marine users and cultural values.
Loss of well control (LOWC) event	Whilst undertaking the activity, it is highly unlikely that an unplanned LOWC may occur where there are failures across multiple well control barriers. A LOWC event could result in the release of gas condensate to the marine environment with the potential to result in injury or mortality to fauna, changes in fauna behaviour, changes in ecosystem dynamics and changes affecting other marine users and cultural values.
Spill response operations	In the highly unlikely event of a release of fuel or loss of well control, spill response activities would be conducted and have the potential to result in injury or mortality to fauna, changes in fauna behaviour, changes in habitat and ecosystem dynamics and changes affecting other marine users and cultural values.

3.3 Aspect-Environment Screening

Not all environmental aspects interact with the receiving environment in the same way. For example, water quality will not be affected by artificial light. Table 3-3 shows the identified interactions between environmental aspects (from Table 3-1 and Table 3-2) and components of the environment. Only identified interactions that are predicted to result in environmental consequences greater than 'negligible' will be carried through the full assessment of impacts and risks in the EP. However, additional interactions may be identified during the full environmental assessment process and/or during consultation.

Table 3-3: Identification of interactions between environmental aspects and environmental components

ENVIRONMENTAL COMPONENT	SUB-COMPONENT	ENVIRONMENTAL ASPECT													
		Physical Presence	Seabed Disturbance	Artificial Light	Atmospheric Emissions	Underwater Sound	Routine Discharges	Drilling Discharges	Invasive Marine Species	Interactions with Fauna	Loss of material or waste	Minor Loss of containment	Marine diesel oil release	Loss of well control	Spill Response Operations
Physical Environment	Water Quality		✓		✓		✓	✓			✓	✓	✓	✓	✓
	Sediment Quality							✓							✓
	Air Quality				✓										
	Climate				✓										
	Ambient Light			✓											✓
	Ambient Sound					✓									✓
Ecological Environment	Benthic Habitats and Communities		✓		✓			✓	✓		✓			✓	
	Coastal Habitats and Communities				✓								✓	✓	✓
	Plankton					✓	✓	✓				✓	✓	✓	
	Invertebrates		✓			✓		✓	✓			✓	✓	✓	
	Fish and Sharks					✓				✓	✓	✓	✓	✓	
	Birds			✓		✓				✓	✓		✓	✓	✓

ENVIRONMENTAL COMPONENT	SUB-COMPONENT	ENVIRONMENTAL ASPECT													
		Physical Presence	Seabed Disturbance	Artificial Light	Atmospheric Emissions	Underwater Sound	Routine Discharges	Drilling Discharges	Invasive Marine Species	Interactions with Fauna	Loss of material or waste	Minor Loss of containment	Marine diesel oil release	Loss of well control	Spill Response Operations
	Marine Reptiles			✓		✓				✓	✓		✓	✓	
	Marine Mammals					✓				✓	✓		✓	✓	
	Conservation Values and Sensitivities		✓		✓	✓		✓				✓	✓	✓	✓
Socio-economic Environment (Other marine and coastal users)	Coastal Communities	✓		✓					✓				✓	✓	✓
	Offshore Petroleum Activities								✓				✓	✓	
	Offshore Renewable Energy Activities	✓							✓				✓	✓	
	Other Infrastructure								✓				✓	✓	✓
	Defence Activities	✓	✓ [5]										✓	✓	
	Shipping	✓							✓		✓		✓	✓	
	Tourism	✓		✓					✓				✓	✓	✓
	Recreational Diving and Fishing					✓			✓				✓	✓	✓

[5] *The risk of encountering munitions on the seabed will be assessed when assessing Interference with Marine and Coastal Users (i.e. defence activities).*

ENVIRONMENTAL COMPONENT	SUB-COMPONENT	ENVIRONMENTAL ASPECT													
		Physical Presence	Seabed Disturbance	Artificial Light	Atmospheric Emissions	Underwater Sound	Routine Discharges	Drilling Discharges	Invasive Marine Species	Interactions with Fauna	Loss of material or waste	Minor Loss of containment	Marine diesel oil release	Loss of well control	Spill Response Operations
	Commercial Fisheries	✓	✓			✓			✓		✓		✓	✓	
Cultural Environment	First Nations Peoples Heritage		✓	✓	✓	✓				✓	✓		✓	✓	✓
	Native Title												✓	✓	✓
	Maritime Archaeological Heritage		✓												

3.4 Predicting Nature and Scale of Impacts

The preliminary impact assessment process consists of a desktop study conducted to evaluate the environmental consequences of planned activities within the Environmental Planning Area. Recommendations for further studies, including modelling, are made where necessary to support the full environmental assessment.

Environmental impacts have been identified based on the cause-effect pathways that arise from aspects of the activity. This preliminary assessment is intended to:

- Support consultation with relevant government authorities, persons and organisations who may have functions, interest and/or activities that may be affected by the proposed activities
- Direct further assessment towards areas of more significant impact
- Inform decision-making during program design, and
- Justify if no further assessment is required aspects with negligible environmental effects.

This preliminary impact assessment is designed to facilitate consultation with relevant government authorities, persons and organisations about the nature and scale of environmental impacts from the activity. This assessment will be published on the Otway Consultation Hub and used to support consultation.

3.4.1 Assessment of Potential Significance

A key outcome from this preliminary assessment is the identification of potentially significant impacts and risks, which provides context for additional studies or research and guides the full environmental assessment.

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), an action (activity) will require approval from the Environment Minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance. A 'significant impact' is an impact which is important, notable or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon:

- The sensitivity, value and quality of the environment, which is impacted, and
- The intensity, duration, magnitude, and geographic extent of the impacts.

3.4.2 Environmental Impact Evaluation

At this preliminary stage, environmental impacts are evaluated on the basis of likely consequence and the level of certainty assigned to that consequence. As planned aspects are expected to occur, the likelihood of their occurrence is not considered during evaluation, and only a consequence level is assigned as presented in Table 3-4.

Preliminary predictions of the consequence of impacts have been made with legislative and other requirements in place and consideration of the existing pressures on receptors.

Table 3-4: Preliminary environmental impact evaluation

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[6]	ENVIRONMENTAL IMPACT	EFFECT (CONSEQUENCE EVALUATION)	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
Physical Presence - Interference	Socio-economic Environment	Short-term changes to the functions, interests and activities of other marine users, i.e. typically through displacement while the activity occurs.	Minor	Low - impacts are well understood	Undertake qualitative assessment of usage and potential impacts, and consult with marine users.
		Short-term changes to visual amenity of coastal locations when the activity occurs near the coast.			Undertake qualitative assessment of visibility impacts for coastal locations, and consult with coastal users.
Seabed Disturbance	Ecological Environment	Localised direct disturbance resulting in injury or mortality to benthic fauna, indirect impacts associated with suspension of sediments decreasing water quality and light penetration to the seafloor affecting benthic habitat and communities, and the values of the Zeehan Marine Park and West Tasmania Canyon key ecological feature.	Minor	Low - impacts are well understood	Undertake qualitative assessment of impacts and usage of operational areas by commercial fisheries, and consult with relevant state and federal government departments, commercial fishers and federal government marine reserve managers.
	Commercial Fisheries	Localised temporary or permanent change in benthic habitats and associated species.			
	Cultural Heritage	Physical disturbance of seabed which may have been part of the historical land bridge connecting mainland Australia to Tasmania, may represent songlines and may contain cultural artifacts. Potential encounter with undiscovered shipwrecks.	Minor	Moderate – impacts are amenable to assessment	Undertake qualitative assessment of impacts, and consult with First Nations peoples and maritime archaeologists.

[6] *Where two or more sub-components (e.g. water quality and sediment quality) are impacted, the text refers to the primary Environmental Component (e.g. Physical Environment) for simplicity.*

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[6]	ENVIRONMENTAL IMPACT	EFFECT (CONSEQUENCE EVALUATION)	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
Artificial Light (Including routine lighting and flaring)	Ecological Environment	Light emissions from routine operations and short-term flaring may result in injury or mortality to fauna and a change in fauna behaviour (namely seabirds, shorebirds and marine reptiles), some of which may be culturally relevant species (e.g. shearwaters) or critically endangered (orange-bellied parrot). *Illuminated structures and illuminated boats have been identified as a potential barrier to migration and movement of the orange-bellied parrot.	**Minor** for seabirds and shorebirds **Moderate** for Orange-bellied parrot	Moderate – impacts are amenable to assessment	Undertake quantitative assessment of impacts using modelling and consult with First Nations Peoples and avifauna specialists within state and federal government departments.
	First Nations Peoples Heritage		**Minor**		
	Coastal Communities and Tourism	Light emissions from routine operations and short-term flaring may result in a change in the functions, interest and activities of other users and a change in aesthetic values.	**Minor**	Moderate – impacts are amenable to assessment	Undertake quantitative assessment of impacts using modelling and consult with local government and coastal users.
Atmospheric Emissions	Physical Environment	Emissions to atmosphere from exploration activities will result in a temporary, localised reduction of air quality within the environment immediately surrounding the emission source; and contribute to anthropogenic climate change, which is known to affect ocean acidification and deoxygenation, and the frequency and intensity of extreme weather events.	**Minor**	Low - impacts are well understood	Undertake quantitative assessment of predicted greenhouse gas emissions and impacts and consult with relevant First Nations Peoples, relevant state and federal government departments, federal government marine reserve managers and commercial fishers.
	Ecological Environment	Emissions to atmosphere contribute to anthropogenic climate change, which is known to affect specific species, environments, and ecosystems, some of which may be associated with conservation values and sensitivities of the Zeehan and Apollo Marine Parks.			

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[6]	ENVIRONMENTAL IMPACT	EFFECT (CONSEQUENCE EVALUATION)	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
	First Nations Peoples Heritage	Emissions to atmosphere contribute to anthropogenic climate change, which may impact cultural heritage sites and places of spiritual relevance in coastal locations due to rising sea levels.			
	Socio-economic Environment	Emissions to atmosphere contribute to anthropogenic climate change, which may affect the functions, interests, or activities to other users who rely on sensitive ecological values, such as fisheries.			
Underwater Sound	Ecological Environment	A change in ambient noise has the potential to result in injury (auditory impairment, permanent threshold shift and temporary threshold shift) and mortality to fauna, and changes in fauna behaviour, some of which may be culturally relevant species, and changes to the values of the Zeehan and Apollo Marine Parks and West Tasmania Canyon key ecological feature.	Effects range from **Negligible** to **Moderate** (for some whale species)	Moderate – impacts are amenable to assessment	Undertake quantitative assessment of impacts using modelling of continuous and impulsive noise sources for a range of operational activities, and consult with relevant species specialists within state and federal government departments and federal government marine reserve managers.
	First Nations Peoples Heritage				
	Socio-economic Environment	A change in ambient noise has the potential to result in injury (auditory impairment, permanent threshold shift and temporary threshold shift) and mortality, and changes in behaviour of commercially relevant species, and may result in aversion for divers and other marine users.	**Minor**	Moderate – impacts are amenable to assessment	Undertake quantitative assessment of predicted impacts and consult with relevant state and federal government departments and commercial fishers.
Planned Discharges – (Including routine and drilling discharges)	Physical Environment	Planned discharges have the potential to alter water, sediment quality and habitat composition within the operational area.	**Minor**	Low - impacts are well understood	Undertake qualitative assessment of impacts and consult with marine users and federal government marine reserve managers.
	Ecological Environment	Changes to water and sediment quality and habitat composition have the potential to result in injury or mortality to fauna through toxicity or smothering, and changes to the values of the Zeehan Marine Park and West Tasmania Canyon key ecological feature.			

3.5 Predicting the Nature and Scale of Risks

The preliminary risk assessment process consists of a desktop study conducted to identify the environmental consequences of unplanned events within the Environmental Planning Area, and to assess the likelihood of their occurrence. The results of the consequence and likelihood analysis is used to characterise the overall risk associated with the activity, and to prioritise mitigation measures and management strategies. Recommendations for further studies, including modelling, have been made where necessary to support the full environmental assessment.

Environmental risks are identified and evaluated based on the cause effect pathways that arise from the activity. This preliminary assessment provides a first pass at evaluating the significance of the environmental risk to:

- Support consultation with relevant government authorities, persons and organisations who may have functions, interest and/or activities that may be affected by the proposed activities
- Direct further assessment towards areas of more significant risk
- Inform decision making during the activity design, and
- Justify if no further assessment is required for negligible effects.

This risk assessment is designed to facilitate consultation with relevant government authorities, persons and organisations about the nature and scale of environmental risks from the activity. This preliminary assessment will be published on the Otway Consultation Hub (public website) and used in consultation with relevant persons.

3.5.1 Environmental Risk Evaluation

At this preliminary stage, environmental risks are assessed on the basis of a subjectively estimated level of consequence combined with an estimated likelihood of the hazard occurring – to determine an inherent risk ranking. The inherent risk ranking is indicated using shading to indicate low, medium and high ranked risks, where identified. The outcomes of the evaluation, along with recommendations to support the full assessment process, are presented in Table 3-5.

Preliminary predictions of risk have been made with legislative and other requirements in place and consideration of the existing pressures on receptors.

Table 3-5: Preliminary environmental risk evaluation

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[7]	ENVIRONMENTAL RISK	EFFECT (CONSEQUENCE EVALUATION)*	LIKELIHOOD OF OCCURRENCE*	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
Invasive Marine Species	Ecological Environment	The establishment of IMS can result in changes in ecosystem dynamics in benthic habitats and communities and changes to conservation values of the Zeehan Marine Park and West Tasmania Canyon key ecological feature.	Major	Improbable	Low - impacts are well understood	Undertake qualitative assessment of impacts and consult with commercial fishers, biosecurity specialists within state and federal government departments and federal government marine reserve managers.
	Commercial Fisheries	The establishment of IMS can result in changes in ecosystem dynamics in benthic habitats and communities resulting in a change in the functions, interest and activities of other users.				
Interactions with Marine Fauna	Ecological Environment	Interactions with marine fauna (including fish, sharks, birds, marine mammals and marine reptiles) can result in injury or mortality to fauna or changes in fauna behaviour, some of which may be culturally relevant species, and changes to the conservation values of the Zeehan Marine Park.	Minor	Remote	Low - impacts are well understood	Undertake qualitative assessment of impacts and consult with First Nations Peoples, marine fauna specialists within state and federal government departments and federal government marine reserve managers.
	First Nations Peoples Heritage					
	Water Quality		Minor	Remote		

[7] *Where two or more sub-components (e.g. water quality and sediment quality) are at risk, the text refers to the primary Environmental Component (e.g. Physical Environment) for simplicity.*

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[7]	ENVIRONMENTAL RISK	EFFECT (CONSEQUENCE EVALUATION)*	LIKELIHOOD OF OCCURRENCE*	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
Loss of Material or Waste	Ecological Environment First Nations Peoples Heritage	A loss of materials or waste overboard can cause a change in water quality, change in benthic habitat, or may lead to injury or mortality to individual marine fauna (namely birds, sharks, marine turtles and marine mammals), some of which may be culturally relevant species, through ingestion or entanglement.			Low - impacts are well understood	Undertake qualitative assessment of impacts and consult with First Nations Peoples and marine fauna specialists within state and federal government departments.
	Socio-economic Environment	In the event an object is accidentally released and cannot be recovered, it may present a navigation or entanglement hazard to commercial fishers and other marine users.	Negligible	Remote		
Minor Loss of Containment	Water Quality Ecological Environment	A minor loss of containment can cause a change in water quality that may result in injury or mortality to individual marine fauna (namely plankton including both invertebrate and fish larvae) through chemical toxicity, and changes to the conservation values of the Zeehan Marine Park.	Negligible	Rare	Low - impacts are well understood	Undertake qualitative assessment of impacts and consult with relevant state and federal government departments and federal government marine reserve managers.
Marine Diesel Oil Release	Physical Environment	A release of marine diesel oil can result in a change in water quality that may result in injury or mortality	Minor for most species	Remote	Moderate – impacts are	Undertake quantitative assessment of potential impacts using modelling of

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[7]	ENVIRONMENTAL RISK	EFFECT (CONSEQUENCE EVALUATION)*	LIKELIHOOD OF OCCURRENCE*	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
	Ecological Environment Cultural Environment	to fauna and changes in fauna behaviour (including plankton, invertebrates, fish and sharks, birds, marine reptiles and marine mammals), some of which may be culturally relevant species, and changes in ecosystem dynamics, coastal habitats and communities and conservation values of State protected areas (marine), Australian marine parks, key ecological features and wetlands.	**Moderate** for shorebirds, aquatic birds, cetaceans, coastal habitats and communities	**Remote**	amenable to assessment	credible worst-case releases for a range of representative locations within the operational areas, and consult with First Nations Peoples, relevant pollution response agencies within local, state and federal government, federal government marine reserve managers, commercial fisheries and other marine users.
	Socio-economic Environment	A release of marine diesel oil can result in a change in water quality that may result in changes to the functions, interests or activities of other users and aesthetic values, potentially including tourism, recreational diving and fishing, commercial fisheries, coastal communities, defence, shipping and offshore petroleum activities.	**Minor** for commercial fisheries and other marine and coastal users	**Remote**	Moderate – impacts are amenable to assessment	
			Moderate for Offshore Petroleum Activities	**Remote**		
Loss of Well Control	Physical Environment	A loss of well control event can result in a change in water quality that may result in injury or mortality to fauna and changes in fauna behaviour (including	**Minor** for plankton, invertebrates,	**Remote**	Moderate – impacts are	Undertake quantitative assessment of potential impacts using modelling of credible worst-case discharge from loss

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[7]	ENVIRONMENTAL RISK	EFFECT (CONSEQUENCE EVALUATION)*	LIKELIHOOD OF OCCURRENCE*	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
		plankton, invertebrates, fish and sharks, birds, marine reptiles and marine mammals), some of which may be culturally relevant species, and changes in ecosystem dynamics, benthic and coastal habitats and communities and conservation values of State protected areas (marine), Australian marine parks, threatened ecological communities, key ecological features and wetlands.	fish and marine reptiles		amenable to assessment	of well control event for a range of representative locations within the operational areas, and consult with First Nations Peoples, relevant pollution response agencies within local, state and federal government, federal government marine reserve managers, commercial fishers and other marine users.
	Ecological Environment		**Moderate** for pinnipeds and benthic and coastal habitats and communities	**Remote**		
	Cultural Environment		**Major** for birds and cetaceans	**Remote**		
	Socio-economic Environment	A loss of well control event can result in a change in water quality that may result in changes to the functions, interests or activities of other users and aesthetic values, potentially including tourism, recreational diving and fishing, commercial fisheries, coastal communities, defence, shipping and offshore petroleum activities.	**Moderate**	**Remote**	Moderate – impacts are amenable to assessment	
Spill Response Operations	Physical Environment	Shoreline response operations can result in increased sedimentation, smothering habitats and	**Moderate**	**Remote**	Moderate – impacts are	Undertake quantitative assessment of environmental values and sensitivities

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT[7]	ENVIRONMENTAL RISK	EFFECT (CONSEQUENCE EVALUATION)*	LIKELIHOOD OF OCCURRENCE*	PREDICTIVE UNCERTAINTY	RECOMMENDATION FOR FULL ASSESSMENT PROCESS
	Ecological Environment	communities; disturbance, injury and mortality of fauna, and shoreline erosion potentially impacting nests or nesting fauna, conservation values and sensitivities.			amenable to assessment	and potential risks, and consult with First Nations Peoples, relevant pollution response agencies within local, state and federal government and federal government marine reserve managers.
	Cultural Environment					
	Cultural Environment	Disturbance and erosion caused by shoreline response operations may affect culturally relevant species and damage or destroy cultural artifacts.	Minor	Remote		
	Socio-economic Environment	The presence of hydrocarbons on shorelines, and associated monitoring, clean-up, and wildlife operations, may require the temporary closure of the shorelines resulting in changes to the functions, interests, or activities within the impacted area.	Minor	Remote	Moderate – impacts are amenable to assessment	Undertake qualitative assessment of potential risks, and consult other marine and coastal users.

**The inherent risk rating is indicated by shading, and is assigned based on the consequence and likelihood.*

Low Risk
Medium Risk
High Risk

4 EVALUATING IMPACTS AND RISKS

The first few steps in the process of evaluating impacts and risks are described in the following section to support consultation, primarily in the identification of opportunities to improve or better mitigate impact and risk outcomes.

4.1 Mitigation and Management

Once impacts and risks have been analysed, the next step in the assessment process involves the identification and evaluation of potential mitigation and management measures. Mitigation and management measures are adopted in the design and implementation of the activity to reduce environment impacts and risks. They are typically specific to the environmental setting of the activity will be informed through consultation, although may not be defined until the final details of the activity are known.

Mitigation and management measures that minimise environmental impacts and risks, or improve the accuracy of predictions, may be identified during the preliminary assessment phase, but are more likely identified through during the detailed environmental assessment phase and during consultation. There are five types of mitigation and management measures as explained below in Figure 4-1.



Figure 4-1: Types of mitigation and management measures

5 ONGOING EP DEVELOPMENT AND CONSULTATION

This preliminary impact and risk assessment is intended to support consultation regarding ConocoPhillips Australia's proposed Otway exploration drilling program in the offshore Otway Basin, off the coast of Victoria and King Island, Tasmania.

The purpose of consultation is to ensure authorities, persons and organisations that are potentially affected by the proposed activities are engaged and that their input is considered in both the development of the consultation processes and in the EP for this activity.

Consultation provides an avenue to receive information, ask questions, provide feedback, identify additional environmental values and sensitivities, and raise issues and concerns about the activity and its environmental impacts and risks. Consultation informs the identification, assessment and management of environmental impacts and risks during the development of the EP.

Consultation also informs the understanding of the environment within which the activity will take place. ConocoPhillips Australia is particularly interested to hear from individuals and organisations who may be affected by the proposed activity in the context of – people and communities, heritage values, and ecological, social and cultural features. This information provides valuable insight and local context that supports the identification, assessment and effective management of environmental impacts and risks.

This preliminary environmental impact and risk assessment represents one of number of consultation methods and communication tools that ConocoPhillips Australia is using to identify and provide sufficient information for relevant persons to make an informed assessment of the possible consequences of the activity on them.

Information on ConocoPhillips Australia's proposed approach to consultation, and updates on the development of the EP, can be found at the ConocoPhillips Australia Otway Exploration Drilling Program Consultation Hub according to the consultation timeline shown in Figure 5-1.



Figure 5-1: ConocoPhillips Australia's environment plan preparation and consultation timeline

ConocoPhillips

C4: First Nations Consultation Report

1. First Nations Consultation

1.1. Overview of Requirements

First Nations groups, such as land councils and body corporates, may be relevant persons whose functions, interests, or activities could be affected by Otway Exploration Drilling Program activities. These groups may also provide advice on which other First Nations groups or individuals need to be consulted. The Native Title Act 1993 (NT Act) recognises the connection of traditional owners and demonstrates that consultation with First Nations people is possible through the communal interest they hold with their respective groups. Authorities require reasonable notice to group members, but not exhaustive communication with every person (*Tipakalippa*).

To fulfill the First Nations consultation obligation, ConocoPhillips Australia has demonstrated that First Nation groups have been afforded a reasonable opportunity to be consulted with.

1.2. ConocoPhillips Australia's Understanding of First Nations Cultural Heritage

To enhance our knowledge of First Nations cultural heritage, specifically spiritual values and sensitivities, a member of the Otway Exploration Drilling Program team visited significant cultural heritage sites in Tasmania on Peerapper Country, and in Victoria on Gunditjmara Country. While on Country, our team member was privileged to hear first-hand some of the stories associated with ancestry, song lines, totems, the significance of landscape and the connection of Country with the story of Creation, to name only a few aspects of the knowledge generously shared.

Three key learnings that contextualise the assessment of environment and potential impacts and risks of the proposed activity are:

- Country is both land and sea – there is no separation.
- Aboriginal people use song lines to guide their journeys. A song line in this context was described anecdotally by our First Nations tour guide as 'our sat(ellite) nav(igation)'.
- The story of the spiritual significance of Deen Maar, a First Nations Protected Area, was mentioned by three individual Gunditjmara people located in Warrnambool (Eastern Maar Country) and Heywood, (Western Maar Country). Our team member learnt that Deen Maar has a strong spiritual and visual connection for Gunditjmara Peoples as the place where Bunjil, the Creator, left this world, and traditionally, the Gunditjmara have been buried with their heads pointed in the direction of Deen Maar.

1.3. Application of the ConocoPhillips Australia Consultation Framework

In addition to the consultation approach and methodology outlined at 3.2, ConocoPhillips Australia has tailored the engagement method to the individual needs of First Nations organisations and groups where possible.

ConocoPhillips Australia's targeted approach is guided by the United Nations Declaration on the Rights of First Nations People (UNDRIP) which respects Traditional Custodians by directing consultations through their nominated representative body (referred to in UNDRIP as "their own representative institutions").

The Australian Government supports the United Nations Declaration on the Rights of Indigenous Peoples (2009).

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Appendix C4: First Nations Consultation Report

The Declaration recognises the "importance of consulting with First Nations peoples on decisions affecting them, and that respect for First Nations knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment"[1]. This pillar of consultation with First Nations Peoples has been reinforced throughout consultation with Prescribed Body Corporates who have requested that ConocoPhillips Australia engage with them as the representative bodies for that Traditional Custodian group (Event ID: 3788).

1.3.1. Understanding what Constitutes a "Reasonable Opportunity" for First Nations Peoples

Engaging with First Nations Peoples requires an understanding of the diversity of their beliefs, customs, traditions, social structures, cultural practices and histories. First Nations people have unique relationships to the land, sea and waterways and their ownership and stewardship of Country is acknowledged by ConocoPhillips Australia.

Australian law recognises that Aboriginal and Torres Strait Islander people have rights and interests in the land and sea under their traditional laws and customs.

To ensure ConocoPhillips Australia engages First Nations Peoples in a respectful and culturally appropriate manner that builds trust, facilitates genuine two-way dialogue, and establishes long-term, meaningful relationships, the following literature review was undertaken to further inform our consultation methodology:

- Sea Country: an Indigenous perspective [2] Sea Country SE Regional Marine Plan Assessment Reports
- Eastern Maar Meerreengeeye ngakeepoorryeeyt[3] (Country Plan) EMAC
- Wadawurrung Country Plan [4] Paleert Tjaara Dja
- First Peoples – State Relations (2022): Guidance on Engaging Traditional Owners https://www.firstpeoplesrelations.vic.gov.au/engaging-traditional-owners
- United Nations (2007): United Nations Declaration on the Rights of First Nations People UN Declaration
- Department of Environment, Land, Water and Planning (2019): Fact sheet 10: Partnerships with Traditional Owners Traditional Owners Fact Sheet
- Department of Climate Change, Energy, the Environment and Water (2023): *Interim Engaging with First Nations People and Communities on Assessments and Approvals under the Environment Protection and Biodiversity Conservation Act 1999* Interim Engaging with First Nations People and Communities
- Department of the Environment (2016) *Engage Early Guidance for proponents on best practice First Nations engagement for environmental assessments under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* Engage Early
- Victorian Aboriginal Heritage Council (n/d): Traditional Owners Caring for Country
- Victorian Aboriginal Heritage Council (n/d): Registered Aboriginal Parties

This research shaped the phased approach below, which afforded First Nations people a reasonable period to engage in consultation.

First Nations representative bodies were prompted to notify any person who the representative body is aware holds or may hold native title in relation to the land or waters, of ConocoPhillips Australia's intention to consult

[1] Department of the Environment (2016) *Engage Early Guidance for proponents on best practice First Nations engagement for environmental assessments under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
[2] Department of Environment and Heritage (2002): *Sea Country: an First Nations perspective* (The South-east Regional Marine Plan Assessment Reports)
[3] Eastern Maar Aboriginal Corporation (2015): Eastern Maar *Meerreengeeye ngakeepoorryeeyt*
[4] Wadawurrung Aboriginal Corporation (2019): *Paleert Tjaara Dja Let's make Country good together 2020-2030 - Wadawurrung Country Plan*

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them (see for example Event ID 3054 and Document ID 3091). These bodies were also informed directly that ConocoPhillips Australia believes they have functions, interests or activities that may be affected by the potential impacts of the activity and asked about their preferred format of consultation (see for example Event ID 2949, Event ID 1932 and Document ID 2360, Event ID 2817 and Document ID 2944, and Event ID 2778 and Document ID 2875).

1.3.2. Adopting a phased approach

ConocoPhillips Australia ran a parallel consultation process for public consultation and consultation with relevant persons (see Figure 3-3 Consultation framework for the Otway Exploration Drilling Program in consultation chapter). First Nations organisations and people had the opportunity to participate in the community-based public awareness-raising activities, which included 15 widely advertised local community information sessions and three webinars. First Nations organisations and people could also choose to participate in the relevant persons consultation process that was further refined to support meaningful dialogue about First Nations cultural heritage and ways to protect environmental values and sensitivities.

To do this, ConocoPhillips Australia first sought to understand the functions, interests and activities that may be affected, as well as expectations and preferences for consultation, in recognition of the right of First Nations people to speak for and manage Sea Country (see for example Event ID's 3054, 1932, 3809 and 2778).

A personal written invitation to participate in the co-design of a consultation process that would achieve mutually beneficial outcomes, including the protection of cultural heritage, was sent to the CEOs of all registered First Nations Corporations early in the consultation process. Key messages included ConocoPhillips Australia's commitment to:

- Engaging early and endeavouring to develop a strong working relationship.
- Ensuring that the intent of consultation (inform/negotiate) was clear from the outset.
- Genuinely seeking input and expertise from the local First Nations community.

The invitation letter was then followed up multiple times and in multiple ways, including an additional follow-up registered letter for primary stakeholders offering to meet on Country, SMS messages to mobile phones (if contact details were known), private messages on online social networking platforms when connection requests were accepted, and physical visits.

A phased approach supports best-practice for engagement, namely, 'engage early and often'[5] throughout the life of the activity. The phased First Nations consultation approach during the development of the Environment Plan is depicted in Figure 1-1 below.

[5] Department of Climate Change, Energy, the Environment and Water (2023): *Interim Engaging with First Nations People and Communities on Assessments and Approvals under the Environment Protection and Biodiversity Conservation Act 1999*

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Figure 1-1: Phased consultation approach

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1.4. Relevant Person Identification

The tailored, phased approach used by ConocoPhillips Australia allowed for the broad identification of First Nations relevant persons.

1.4.1. Sufficiently Broad Capture of First Nations People and Information

The following desktop research was undertaken to identify First Nations people and information within the primary and secondary stakeholder areas:

- ConocoPhillips Australia commissioned a cultural heritage specialist (Biosis) to explore regional cultural heritage and cultural heritage landscapes to support a grounding in Aboriginal cultural heritage including Country and Sea Country. The intent of the commissioned study, included in Appendix L, was to form the basis for gaining an understanding of cultural values and sensitivities, to inform consultation and support the preparation of the Environment Plan.
- Visited the local government authority websites (the shire or municipal council) who often include acknowledgement of the local traditional owners.
- Searched State government websites for information about Traditional Owners in their jurisdictions, especially in the context of information about local offices.
- Searched online for states' Aboriginal and Torres Strait Islander consultative bodies, which themselves might offer advice.
- Contacted land councils representing the local Aboriginal or Torres Strait Islander communities.
- Conducted online searches for First Nations Prescribed Body Corporates at Office of the Registrar of First Nations Corporations (ORIC).
- Conducted online search for Victoria's Registered Aboriginal Parties at https://www.aboriginalheritagecouncil.vic.gov.au/victorias-current-registered-aboriginal-parties
- Identified First Nations Protected Areas (IPA) and relevant IPA Programs for Sea Country by searching online at https://www.niaa.gov.au/First Nations-affairs/environment/First Nations-protected-areas-ipas
- Identified contact details for Victoria's Registered Aboriginal Parties by searching online at https://www.aboriginalheritagecouncil.vic.gov.au/victorian-aboriginal-heritage-council-annual-report-2019-2020-0/victorias-registered-aboriginal
- Used the interactive mapping tool at https://achris.vic.gov.au/weave/wca.html to identify Victoria and South Australia's First Nations Peoples.
- Sought contact details of NSW Aboriginal Land Councils at https://alc.org.au/land_council/
- Searched Aboriginal Heritage Councils in Victoria and Tasmania at https://www.aboriginalheritagecouncil.vic.gov.au/victorias-current-registered-aboriginal-parties and Council Home (aboriginalheritage.tas.gov.au) respectively.
- Searched NSW Aboriginal Land Council for list of Local Aboriginal Land Councils in Southern Zone, and contact details for chairpersons at https://alc.org.au/
- Identified First Nations Peoples within the EMBA using the map of First Nations Australia at https://aiatsis.gov.au/explore/map-First Nations-australia

As people and information were identified, advertising in First Nations media was used to support Public Notices about consultation in February 2023, and again August and September 2023 (see Appendix C3 tear sheets, for example Aug 23 National Indigenous Times), when the Draft Environment Plan was released for consultation.

1.4.2. Identifying specific First Nations Groups

Local First Nations groups may have specific cultural or spiritual functions, interests and activities that could be affected by the activity proposed within the spatial extent of the environmental planning area.

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A spatial overlay was used to map and identify the First Nations Groups, such as Registered Aboriginal Parties, Aboriginal Corporations and Native Title Land Councils that may have environmental values and sensitivities within the environmental planning area, or have connections to Sea Country (all estuaries, beaches, bays, and marine areas collectively, within a traditional estate).

On this basis, primary stakeholders are those who may be affected by the proposed activity and within physical proximity of it. Secondary stakeholders are those who are located at increased distances from the activity area and are unlikely to be directly impacted by it.

The priority areas for consultation with First Nations were:

- Primary Stakeholder area (Victoria) – the area directly surrounding the proposed permit areas and adjacent coastlines (Table 1-1).
- Secondary Stakeholder area – the wider area affected by the modelling of oil spills (Table 1-2).
- Primary Stakeholder area (Tasmania) – North and Northwest Tasmania and the Bass Strait islands (Table 1-3).

Table 1-1: Primary stakeholders in Victoria

Aboriginal Group	Representative Body
Gunditjmara	Gunditj Mirring Traditional Owners Aboriginal Corporation (GMTOAC)
Eastern Maar	Eastern Maar Aboriginal Corporation (EMAC)

Table 1-2: Secondary stakeholders in Victoria

Aboriginal Group	Representative Body
Wadawurrung	Wadawurrung Traditional Owners Aboriginal Corporation (Wadawurrung)
Bunurong	Bunurong Land Council Aboriginal Corporation (Bunurong)
Gunaikurnai	Gunaikurnai Land and Waters Aboriginal Corporation (GLAWAC)

In the absence of Registered Aboriginal Parties in Tasmania, ConocoPhillips Australia recognises the coastal language groups listed in Table 3 below. (see full details of this at Event ID: 3431 Meeting on Country and Document ID: 3916 Meeting Notes).

Table 1-3: Coastal Language Groups in Tasmania in the north and northwest (after AIATSIS)

Language Group	Heading
Pyemmairrener	Northeast Tasmania
Tyerrernotepanner **Tomeginne**	Central north Tasmania
Peerapper	Western Coast Tasmania

1.5. First Nations Relevant Persons Identified

Table 1-4 below outlines each identified First Nations relevant person, their relevance to the proposed activity, ConocoPhillips Australia's rationale for engagement (such as referrals from other organisations) and a brief outline of their invitation to participate in the consultation process.

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Table 1-4: Relevant persons, relevance and rationale for engagement

First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 92 Aboriginal Heritage Council (TAS)	Statutory Tasmanian Government Aboriginal Heritage Council. Members of the Council are First Nations People.	The statutory Aboriginal Heritage Council was established under the *Aboriginal Heritage Act 1975* in August 2017. The Aboriginal Heritage Council provides advice and recommendations to the Minister for Aboriginal Affairs, the Director of National Parks and Wildlife, and stakeholders on the protection and management of Aboriginal heritage in Tasmania. As such, the Aboriginal Heritage Council Tasmania will be able to provide strategic advice and feedback on the cultural heritage assessment methodology in the Environment Plan, specifically the assessment of Tasmanian cultural heritage, and the relevant First Nations Peoples in Tasmania. Under section 25 (1) (d) it is a relevant organisation.	Event ID 1935 Registered letter to Chair of AHC (Tas.) to advise that it has been identified as a relevant organisation on OEDP and inviting participation in the consultation process. Recent project update and regulator's brochure also included.
ID 75 Victorian Aboriginal Heritage Council (VIC)	Statutory Victorian Government Aboriginal Heritage Council. Members of the Council are First Nations People.	The Victorian Traditional Owners are the primary custodians for heritage of the past, present and future. A long-standing statutory function of Council is to promote public awareness and understanding of Aboriginal Cultural Heritage in Victoria. Council partners with Victorian RAPs and other Traditional Owners to improve Aboriginal and non-Aboriginal peoples' understanding and enjoyment of Aboriginal Cultural Heritage. As such, under section 25 (1) (d) it is a relevant organisation.	ID 2481 Outgoing email to confirm telephone discussion and advice received about First Nations Consultation in Victoria for the proposed Otway Exploration Drilling Program. ID 3084 Outgoing email with proposed meeting time for joint briefing about the Otway Exploration Drilling Program.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 93 Aboriginal Land Council of Tasmania	The Aboriginal Land Council of Tasmania is the statutory body, established by law to own returned land on behalf of Tasmania's Aboriginal Community. The Aboriginal Lands Act (1995) sets out the establishment, election, and purpose of the Aboriginal Land Council of Tasmania.	The Aboriginal Land Council of Tasmania is governed by a board of eight Aboriginal people, elected in a Tasmanian Electoral Commission election that is open to all people on the Aboriginal electors roll. The Council includes two representatives from each of the South, North and North West regions and one each from truwana/Cape Barren Island and Flinders Island. The Aboriginal Land Council of Tasmania has functions, interests and activities that overlap the OA (Operational Area) and the wider EMBA (Environment that May be Affected) which may be impacted in the unlikely event of a loss of well control.	ID 1932 Registered letter sent to CEO advising that ALCT has been identified as a relevant person (the organisation and Members) and explaining the consultation process. Letter included a statement that ConocoPhillips Australia is seeking to understand their interests, activities and functions relating to the title areas, as well as their expectations and preferences for consultation, in recognition of their right to speak for and manage their own Sea Country. Recent project updates and a copy of the NOPSEMA consultation brochure also included.
ID 58 Ballawinne Aboriginal Corporation (TAS)	Ballawinne Aboriginal Corporation (BAC) is a not-for-profit community organization based in Huonville, Tasmania, 38kms south of Hobart.	The BAC is an active Indigenous corporation with strong connections to other First Nations groups across Tasmania. While highly unlikely to be impacted, BAC is located within the EMBA. The members identify with Song Lines and BAC have asked to be kept informed.	ID 623 Outgoing email to CEO with personalised letter attached advising that BAC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for BAC to consider.
ID 79 Batemans Bay Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Batemans Bay Local Aboriginal Land Council (BBLALC) Is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the BBLALC has functions,	ID 1936 Registered letter sent to CEO advising that Batemans Bay LALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
		interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	
ID 80 Bega Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Bega Local Aboriginal Land Council is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the Bega Local Aboriginal Land Council has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1937 Registered letter sent to CEO advising that Bega LALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.
ID 81 Bodalla Local Aboriginal Land Council (NSW)	Representative First Nations organisation located in coastal NSW.	The Bodalla Local Aboriginal Land Council (BLALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the BLALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1938 Registered letter sent to CEO advising that Bodalla LALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.
ID 62 Brumby Hill Aboriginal Corporation (TAS)	First Nations employment organisation located at Smithton in NW Tasmania.	Incorporated on the 13th of January 2017, Brumby Hill Aboriginal Corporation offers a holistic service to meet the employment needs of indigenous people in Tasmania.	ID 624 Outgoing email with personalised letter to CEO attached advising that BHAC has been identified as a relevant organisation for the proposed Otway Offshore

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
		Currently the only Aboriginal organisation with an employment contract to assist Aboriginal and Torres Strait Islanders in Tasmania. The organization has business functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	Exploration Drilling Program. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for BHAC to consider.
ID 71 Bunurong Land Council Aboriginal Corporation	Registered Traditional Owner organisation that represents the Bunurong people of the South-Eastern Kulin Nation.	Bunurong Land Council Aboriginal Corporation is a Traditional Owner organisation that represents the Bunurong people of the South-Eastern Kulin Nation. The Bunurong Land Council Aboriginal Corporation has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 2949 Outgoing email to [redacted] to provide an update about the OEDP and to seek advice about sufficient information and to receive feedback from Members to inform the way we manage the potential impacts on the functions, interests or activities of BLCAC.
ID 97 Burrandies Aboriginal Corporation (SA)	First Nations Aboriginal Corporation in South Australia.	The Burrandies Aboriginal Corporation has been serving the Indigenous Community of the South East of South Australia since 1999. The Burrandies Aboriginal Corporation formally recognises the partnership between Burrandies and the South East Aboriginal Focus Group (traditional custodians of the South East of South Australia) and acknowledges that the Lartara-wirkeri cultural governance framework will guide how Burrandies Aboriginal Corporation undertakes all business, and especially any and all business undertaken with the South East Aboriginal Focus Group and on behalf of the South East Aboriginal Focus Group. The Burrandies Aboriginal Corporation has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 2416 Registered letter sent to CEO advising that Burrandies Aboriginal Corporation has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.
ID 61	First Nations Aboriginal Corporation in	Cape Barren Island Aboriginal Association Incorporated was established in 1972 and is overseen by an Aboriginal Management Committee. The Cape Barren Island	ID 625

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
Cape Barren Island Aboriginal Association Inc. (TAS)	Bass Strait, off the north-east coast of Tasmania..	Aboriginal Association Inc. has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	Outgoing email to Manager with personalised letter attached advising that CBIAA has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for CBIAA to consider.
ID 54 Circular Head Aboriginal Corporation (TAS)	First Nations Aboriginal Corporation in NW Tasmania.	The Circular Head Aboriginal Corporation (CHAC) is an Aboriginal Community Service Organisation that provides housing, aged care, social and emotional management of its residents. As a registered Aboriginal organisation, CHAC is regulated by the Office of the Registrar of Indigenous Corporations as per the CATSI Act. It represents the Aboriginal people of Circular Head and aims to represent the nine tribes of the northwest region. The Circular Head Aboriginal Corporation has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 626 Outgoing email to CEO with personalised letter attached advising that CHAC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for CHAC to consider.
ID 82 Cobowra Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Cobowra Local Aboriginal Land Council (CLALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. as such, the CLALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 2525 Registered letter sent to CEO advising that Cobowra LALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 16 Eastern Maar Aboriginal Corporation (VIC)	Registered Traditional Owner organisation that represents the Eastern Maar people of the Eastern Gunditjmara County.	The Eastern Maar Aboriginal Corporation manages native title rights for the Eastern Maar Peoples. It is also the Registered Aboriginal Party for Eastern Maar Country and is currently negotiating a Recognition and Settlement Agreement under the Traditional Owner Settlement Act 2010. The Eastern Maar are Traditional Owners of southwestern VIC. Their land extends as far north as Ararat and encompasses the Warrnambool, Port Fairy and Great Ocean Road areas. It also stretches 100 m out to sea from low tide and therefore includes the iconic Twelve Apostles. The Eastern Maar Aboriginal Corporation has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a fuel spill or loss of well control.	ID 664 Email to EMAC with letter attached to advise that EMAC has been identified as a relevant organization for OEDP for consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for EMAC to consider.
ID 83 Eden Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Eden Local Aboriginal Land Council (ELALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the ELALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1940 Registered personalized letter sent to CEO advising that Batemans Bay LALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.
ID 457 First Peoples – State Relations	Statutory First Nations group within the Department of Premier and Cabinet (VIC).	First Peoples – State Relations is a newly established group within the Department of Premier and Cabinet, responsible for nation-leading work in the areas of cultural rights, self-determination, treaty and truth – an extensive program of priority work with First Peoples.	ID 3362 Virtual meeting for joint briefing with DEECA and DPC VIC (First Peoples - State Relations) about OEDP

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
Group (DPC Victoria)	The group works with First Peoples on cultural heritage management and protection.	First Peoples – State Relations incorporates the former Aboriginal Victoria and its statutory functions was established following consultation with Victoria's Aboriginal community and peak bodies. Under Reg. 11A 1(b) First Peoples – State Relations Group has been identified as a relevant organization. As such, we have consulted with them about the cultural heritage management process.	Cultural Heritage assessment and First Nations Consultation with Traditional Owners in Victoria.
ID 69 First Tasmanians Aboriginal Corporation (TAS)	Representative First Nations organization located in SW TAS.	The First Tasmanians Aboriginal Organisation is a body established to assist recognition of Indigenous heritage, promote culture and provide support for Indigenous Tasmanians and other Australian Indigenous persons. Located in Dromedary in the local government areas (LGA) of Southern Midlands and Brighton in the Central and Hobart LGA regions of Tasmania. In the unlikely event of loss of well control, their functions, interests and activities may be impacted.	ID 626 Outgoing email to CEO with personalised letter attached advising that FTAC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for FTAC to consider.
ID 68 Flinders Island Aboriginal Association Inc (TAS)	A local Aboriginal community-controlled organisation	Established in 1971 by a local Aboriginal group, Flinders Island Aboriginal Association (FIAA) is governed by an Aboriginal Board of Management, elected by the local community. Flinders Island Aboriginal Association Inc works with and for the community to achieve a self-sufficient, healthy Aboriginal Community. FIAA provides a range of services on Flinders Island including: Primary Health and Aged Care, Housing, Youth Services, a Statewide Tackling Smoking Project and three business enterprises. The FIAA has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 628 Outgoing email to CEO with personalised letter attached advising that FIAA has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for FIAA to consider.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 67 Gunaikurnai Land and Waters Aboriginal Corporation (VIC)	Registered Aboriginal Party that represents the Traditional Owners	The Gunaikurnai Land and Waters Aboriginal Corporation (GLAWAC) is the Registered Aboriginal Party that represents the Gunaikurnai people, the Traditional Owners, as determined by the VIC Aboriginal Heritage Council under the Aboriginal Heritage Act, 2006. It was established in 2007 in preparation for the historic settlement between its people and the State of VIC and was legally recognised by the Federal Court of Australia under the Traditional Owners Settlement Act in 2010. It is the Prescribed Body Corporate for the Gunaikurnai people and claim area, as outlined in the agreement, providing joint management of 10 parks and reserves within the State. It has a membership of more than 600 Traditional Owners, all of whom have proven their ancestral links to one of 25 Apical Ancestors registered in the Native Title Consent Determination. The GLAWAC has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 2778 Outgoing email with personalised letter sent to General Manager advising that GLAWAC has been identified as a relevant organisation for OEDP and inviting participation in the consultation process in recognition of their right to speak for and manage their own Sea Country. The NOPSEMA consultation brochure and the August Project Update also attached.
ID 45 (GMTOAC) Gunditj Mirring Traditional Owners Aboriginal Corporation (VIC)	Registered Native Title Body Corporate administers land on behalf of the Traditional Owners, the Gunditjmara people.	Face to face meeting with ID:3788 who instructed ConocoPhillips Australia to meet with GMTOAC as the representative organisation. The Gunditjmara's ownership of the land was recognised in the Gunditjmara determination of March 2007. The Gunditjmara Traditional Owners Community established the Gunditj Mirring Traditional Owners Aboriginal Corporation RNTBC in 2005. It is governed by its members, Gunditjmara traditional owners and native title holders in line with the Corporations (Aboriginal and Torres Strait Islander) Act 2006. The Gunditj Mirring Traditional Owners Aboriginal Corporation has functions, interests and activities that overlap the OA and the wider EMBA which	ID 2817 Meeting on Country with Gunditjimirring Traditional Owners Aboriginal Corporation as relevant organisation for OEDP to provide information about the project and to seek advice about an appropriate consultation process.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
		may be impacted in the unlikely event of a fuel spill or loss of well control.	
ID 30 Indigenous Land and Sea Corporation	Statutory Commonwealth Indigenous entity under the Public Governance, Performance and Accountability Act 2013 (PGPA Act). Sits within the portfolio of the Department of Prime Minister and Cabinet (PM&C).	The ILSC contributes to the achievement of the Australian Government's priorities in Indigenous Affairs and is accountable to the Parliament through the Minister for Indigenous Australians. The purpose of the ILSC is to assist Aboriginal and Torres Strait Islander people to acquire and manage land, water and water-related interests so as to provide economic, environmental, social or cultural benefits. The less tangible Indigenous Estate refers to the cultural assets, cultural knowledge and intellectual property collectively held by Indigenous Australians and associated with their country. As such, under section 25 (1) (a) it is a relevant organisation.	ID 834 Outgoing email with personalised letter to Divisional Manager attached advising that Indigenous Land and Sea Corporation has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for Indigenous Land and Sea Corporation to consider.
ID 84 Illawarra Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Illawarra Local Aboriginal Land (ILALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the ILALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1941 Registered letter sent to CEO advising that ILALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.
ID 85	Representative First Nations organization located in coastal NSW.	The Jerrinja Local Aboriginal Land (JLALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation	ID 1942

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
Jerrinja Local Aboriginal Land Council (NSW)		of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the JLALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	Registered letter sent to CEO advising that Jerrinja LALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and inviting participation in consultation. Three project information sheets included, plus Regulator's brochure about consultation.
ID 59 Karadi Aboriginal Corporation (TAS)	Representative Aboriginal Community Controlled Organisation.	Karadi Aboriginal Corporation (KAC) is an inclusive Aboriginal community-controlled organisation founded in 1988. It provides leadership in the sector and integrated health and family services which promote the physical, cultural, social and emotional wellbeing of the Aboriginal community of southern Tasmania. As such, the KAC has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 629 Outgoing email to CEO with personalised letter attached advising that KAC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for KAC to consider.
ID 66 Lia Pootah Aboriginal Corporation (TAS)	Representative Aboriginal Corporation	The Lia Pootah Aboriginal Corporation (LPAC) represents the Lia Pootah people of Tasmania. Some of the Lia Pootah claim to be descended from the people of Bruny Island and from the Toogee of Tasmania's West Coast. Others claim an origin on the East Coast and in the Central Highlands. They are distinct from the Palawa, a group of Aboriginal descent whose immediate ancestors hail mostly from the islands of Bass Strait. The cultural arm of the Lia Pootah community is Manuta Tunapee Puggaluggalia (the Tasmanian Aboriginal Historical Cultural Association and Publishing House). The LPAC has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 630 Outgoing email to LPAC with personalised letter attached for Corporation's Secretary, advising that LPAC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for LPAC to consider.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 55 melythina tiakana warrana (Heart of Country) Aboriginal Corporation (TAS)	Registered Aboriginal Corporation is governed by a Circle of Elders who have a recognised "Traditional Authority" within the community and organisation through knowledge of traditional cultural practices, laws and customs, as well as, and strong family connections.	melythina tiakana warrana Aboriginal Corporation (MTWAC) is a registered Aboriginal organisation with the Office of the Registrar of Indigenous Corporations, under the Corporations (Aboriginal and Torres Strait Islander) Act 2006. melythina tiakana warrana members are direct descendants of the Aboriginal Ancestors from the Country of tebrakuna, known as the region of northeast TAS. The MTWAC has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 631 Outgoing email to the official Contact Person with personalised letter attached advising that MTWAC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for MTWAC to consider.
ID 86 Merrimans Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Merrimans Local Aboriginal Land (MLALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the MLALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1943 Registered letter sent to CEO with personalised letter attached advising that MLALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for MLALC to consider.
ID 87 Mogo Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Mogo Local Aboriginal Land Council is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural	ID 1944 Registered letter sent to CEO advising that MLALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
		materials. As such, the Mogo Local Aboriginal Land Council has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	proposed activity and a proposed consultation approach for MLALC to consider.
ID 88 Ngambri Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Ngambri Local Aboriginal Land (NLALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the NLALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1945 Registered letter sent to CEO advising that NLALC has been identified as a relevant organisation for the proposed Otway Offshore Exploration Drilling Program and will be included in the consultation. Two information sheets also attached that outline the proposed activity and a proposed consultation approach for NLALC to consider.
ID 586 National Indigenous Australians Agency	The National Indigenous Australians Agency (NIAA) is a Commonwealth Government Agency.	NIAA is responsible for whole-of-government coordination of policy development, program design, and service delivery for Aboriginal Australians and Torres Strait Islander people, who are grouped under the term Indigenous Australians. Created in July 2019, the Agency is responsible to the Minister for Indigenous Australians and works in partnership with community to make sure policies, programs and services meet their unique needs. Under section 25 (1) (a) the NIAA is a relevant organisation.	ID 3912 Incoming email with letter attached from Branch Manager at NIAA with recommended guidelines for First Nations consultation.
ID 585 National Native Title Council	The National Native Title Council (NNTC) is Australia's Peak Native Title Organisation.	The NNTC is an alliance of Native Title Representative Bodies (NTRBs) and Native Title Service Providers (NTSPs) from around Australia, that acts as a medium for the sharing of information amongst its members. It also provides a platform for outside organisations to consult	ID 1781 Outgoing email to CEO about consultation with Native Title holders about the proposed Otway Exploration Drilling Program and request for assistance and

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
		with NTRBs and NTSPs on land and land-related matters. The NNTC provides a voice on matters of national significance, including representing the views of NTRBs and NTSPs at various forums, and through the submission process to Government policy development and legislative reforms, advocating on their behalf on land and land related matters. As a peak body, under section 25 (1) (d) it is a relevant organization.	guidance for consultation with Eastern Maar First Nations Peoples.
ID 31 National Native Title Tribunal	The National Native Title Tribunal (Tribunal) is an independent Commonwealth Government agency established by the Native Title Act 1993 (Cth) ('the Act').	The Tribunal comprises a President and members, who are appointed by the Governor General under the Act to make decisions, conduct inquiries, reviews and mediations, and assist various parties primarily with native title applications, right to negotiate applications and Indigenous land use agreements ('ILUAs'). Under section 25 (1) (a) the Tribunal is a relevant organisation.	ID 759 Outgoing email with letter attached advising the NNTT that they have been identified as a relevant organisation for the Otway Exploration Drilling Program and will be included in the consultation process.
ID 268 New South Wales Aboriginal Land Council (NSWALC)	A statutory corporation under the New South Wales Aboriginal Land Rights Act in 1983. It is the State's peak representative body in Aboriginal Affairs.	The NSW Aboriginal Land Council (NSWALC) is the peak representative body of Aboriginal Australians in New South Wales. It has the mandate, under the *Aboriginal Land Rights Act 1983* (NSW), to develop land rights among Aboriginal people in New South Wales through its network of 120 Local Aboriginal Land Councils (LALCs). Its functions include the creation of an economic base for Aboriginal communities, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials within NSW. It acts as an advisor to governments and others to ensure the preservation of Aboriginal land rights. As such, the NSWALC has functions, interests and activities in the wider EMBA which	ID 2975 Outgoing email to Chair of Southern Zone of NSWALC with letter attached introducing the Otway Exploration Drilling Program and offering a briefing for the NSW South Coast ALCs.

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
		may be impacted in the unlikely event of a loss of well control.	
Office of Aboriginal Affairs (TAS) Unsubscribed	Statutory Tasmanian State Government Division which sits in the Division of Communities, Partnerships and Priorities, within the Department of Premier and Cabinet	The Office of Aboriginal Affairs is one part of the new Aboriginal Affairs Partnership Division, which sits in the Division of Communities, Partnerships and Priorities within the Department of Premier and Cabinet. The Office of Aboriginal Affairs is the touch point, providing high-level consultation with Tasmania's Aboriginal people, organisations and adviser to the Government on policy issues and impacts affecting Aboriginal people of Tasmania. As such, under section 25 (1) (a) it is a relevant organisation.	31/08/2023 Unsubscribed from mailing list.
ID 64 Parrdarrama Pungenna Aboriginal Corporation (TAS)	A First Nations organisation that represents the Aboriginal people in the east coast and Tasman Peninsula.	The Parrdarrama Pungenna Aboriginal Corporation (PPAC) is a not-for-profit organisation which is run on a 100% voluntary basis. The corporation aims to: • Preserve traditional bush foods knowledge and practice within the Pungenna Community (Tasman District Aboriginal Community). • Provide social, economic and cultural benefits to the Pungenna Community. • Encourage knowledge and use of the paredarerme language within the Pungenna Community. • Support and encourage Indigenous artists by providing a workplace and outlet for their arts and crafts. As such, the PPAC has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 633 Email with personalised attached, as well as two project information sheets, advising PPAC that they have been identified as a relevant organisation for the OEDP project and will be included in the consultation process.
	Registered Indigenous corporation that	Six Rivers Aboriginal Corporation (SRAC) is a member of The Tasmanian Regional Aboriginal Communities Alliance. The	

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Appendix C4: First Nations Consultation Report

First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 52 Six Rivers Aboriginal Corporation	represents Aboriginal people from the mid northern area of Tasmania	Tasmanian Regional Aboriginal Communities Alliance was developed to provide a mechanism to engage and advise Government at all levels regarding affairs affecting Aboriginal Tasmanians. The Six Rivers Aboriginal Corporation has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 633 Email with personalised letter to Board of SRAC attached, as well as two project information sheets, advising that SRAC has been identified as a relevant organisation for the OEDP project and will be included in the consultation process.
ID 545 South East Tasmanian Aboriginal Corporation (SETAC) (TAS)	Registered Indigenous corporation that represents Aboriginal people from South East Tasmania	SETAC was incorporated in 1992 and was established in response to community concerns and needs. It facilitates the empowerment of the Aboriginal people of South East Tasmania to make decisions that affect their lives to ensure a share in Australia's land, wealth, and resources. It aims to empower the Aboriginal people of South East Tasmania to contribute equitably to the nation's economic, social, and political life, with full recognition of their Indigenous cultural heritage. SETAC has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1950 Registered letter (personalised) sent to SETAC inviting participation by SETAC in the consultation process as a relevant organization.
ID 149 Southern Ocean Protection Embassy Collective (SOPEC) (VIC)	A First Nations advocacy group based on Gunditjmara Country and whose founder is a Keerray Woorroong woman.	SOPEC describes its function on social media as the protector of the Dream for the Protection of The Southern Ocean, in Support of Tribal Custodians of Gunditjmara Coastal Land & Sea Country. The Southern Ocean Protection Embassy Collective has functions, interests and activities that overlap the OA and the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 2851 Outgoing email sent to relevant person associated with SOPEC advising that SOPEC has been identified as a relevant organisation and seeking assistance to contact SOPEC about the Otway Exploration Drilling Program. A link to the Draft Environment Plan chapters on the project website was also provided.
ID 70	Aboriginal community organization based in NW TAS	The Tasmanian Aboriginal Centre Inc (TAC) is an Aboriginal community organisation developed in the early 1970s and funded by the federal government since 1973. It was	ID 635

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First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
Tasmanian Aboriginal Centre (TAS)		incorporated as the Aboriginal Information Service in November 1973 and changed its name to Tasmanian Aboriginal Centre in August 1977, and officially to Tasmanian Aboriginal Corporation in 2016, but still trading as the Tasmanian Aboriginal Centre. It represents the political and community development aspirations of the TAS Aboriginal community. The Tasmanian Aboriginal Centre Inc has functions, interests and activities that occur in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	Email with personalised letter to CEO attached, as well as two project information sheets, advising that TAC has been identified as a relevant organisation for the OEDP project and will be included in the consultation process.
ID 56 Tasmanian Regional Aboriginal Communities Alliance (TAS)	Aboriginal community-controlled organization comprised of seven member organisations across Tasmania	The Tasmanian Regional Aboriginal Communities Alliance (TRACA) was developed to provide a mechanism to engage and advise Government at all levels regarding affairs affecting Aboriginal Tasmanians. Eligible full members are Aboriginal Community Controlled Organisations in TAS. There are seven member organisations covering TAS and its islands: Circular Head Aboriginal Corporation in the northwest region, Flinders Island Aboriginal Association Inc on Flinders Island, Melythina tiakana warrana Aboriginal Corporation in the northeast, Parrdarrama Pungenna Aboriginal Corporation in the east coast and TAS Peninsula, Six Rivers Aboriginal Corporation in the central and northern coast, South East Tasmania Aboriginal Corporation in the southeast and Weetapoona Aboriginal Corporation on Bruny Island. The Tasmanian Regional Aboriginal Communities Alliance has functions, interests and activities that occur in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 636 Personalised letter sent to registered contact person for TRACA via email to advise they've been identified as a relevant organisation for the proposed OEDP and inviting participation in the consultation process. Information sheets about the consultation process and project overview also attached. Email sent to TRACA Chairperson via website at traca.com.au/contact to advise draft EP chapters about to be released and offering a briefing for TRACA members.
ID 89	Representative First Nations organization located in coastal NSW.	The Ulladulla Local Aboriginal Land (ULALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation	ID 1947

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Appendix C4: First Nations Consultation Report

First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
Ulladulla Local Aboriginal Land Council (NSW)		of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the ULALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	Registered letter sent to CEO inviting participation by ULAC in the consultation process as a relevant organization. Included copies of recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community, compiled by the Offshore Petroleum regulator (NOPSEMA) for consideration by ULAC.
ID 51 Wadawurrung Traditional Owners Aboriginal Corporation (VIC)	Registered Aboriginal Party (RAP) for Wadawurrung country.	The Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) is the Registered Aboriginal Party (RAP) for Wadawurrung country. With the statutory authority for the management of Aboriginal heritage values and culture, under the Victorian Aboriginal Heritage Act, 2006. WTOAC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 3284 Email to WTOAC inviting them to participate in consultation and offering to meet to discuss WTOAC's functions, interests and activities.
ID 589 Wathaurong Aboriginal Cooperative (VIC)	Registered Aboriginal organization that provides community services.	Wathaurong Aboriginal Co-operative (WAC) is a registered organisation that was established in 1980 to provide culturally appropriate programs, support and services for all Aboriginal and Torres Strait Islander people living on Wathaurong, Gulidjan and Gadabanud country, within the wider Geelong, Bellarine and Colac regions. The WAC provides health, community and family services to Aboriginal people in the Geelong area. It is the largest employer of Aboriginal people in the Geelong region and has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1009 Email to document telephone conversation about invitation for WAC to participate in the consultation process and request for meeting with Cultural Advisor.

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Appendix C4: First Nations Consultation Report

First Nations (Orgs)	Relevance to Activity	Rationale for Engagement	Invitation to participate
First Nations Peoples/Groups			
ID 91 Wagonga Local Aboriginal Land Council (NSW)	Representative First Nations organization located in coastal NSW.	The Wagonga Local Aboriginal Land (WLALC) is a registered member of the NSW Aboriginal Land Council and one of 120 similar organisations that comprise a network that cover the NSW landmass. Its functions include the creation of an economic base for the local Aboriginal community, as well as the continued passing and enhancement of Aboriginal culture, identity and heritage through the management of traditional sites and other cultural materials. As such, the WLALC has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 1948 Registered letter sent to CEO inviting participation by WLALC in the consultation process as a relevant organization. Included copies of recent project updates and a copy of the Consultation on offshore petroleum environment plans – information for the community, compiled by the Offshore Petroleum regulator (NOPSEMA) for consideration by WLALC.
ID 57 Weetapoona Aboriginal Corporation (TAS)	Registered Aboriginal Corporation in SW TAS representing the Weetapoona people, who are the traditional owners of Lunnawanna Alonnah (Bruny Island)	The Weetapoona Aboriginal Corporation (WAC) is a group of local Tasmanian Aboriginal people who work towards reconciliation by forming positive working relationships with local community groups to promote Tasmanian Aboriginal culture. Lunnawanna Alonnah (Bruny Island) is the birthplace of Truganini, also known as Lallah Rookh (c. 1812 – 8 May 1876). The corporation is located in Kingston Beach, Tasmania, and has functions, interests and activities in the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 637 Personalised letter sent via email to the CEO about the proposed Otway Offshore Exploration Drilling Program and to advise that WAC has been identified as a relevant organization for consultation. Project information sheets attached.
ID 581 Winda-Mara Aboriginal Corporation (VIC)	Registered community-owned Aboriginal Corporation on West Gunditjmara Country.	Winda-Mara Aboriginal Corporation (WAC) is a community-controlled organisation. WAC was established in 1991 because members within the community want to provide better health, education and employment opportunities for Aboriginal and Torres Strait Islander people living in the area and have a strong membership base. Winda-Mara has functions, interests and activities that overlap the wider EMBA which may be impacted in the unlikely event of a loss of well control.	ID 3788 Meeting with Chairperson of WAC to provide briefing about OEDP.

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1.6. Ongoing Consultation with First Nations Peoples

ConocoPhillips Australia's methodology for ongoing consultation (see 10.2.5.1 Ongoing Consultation with First Nations Peoples) accommodates for new relevant persons who self-identify throughout the lifecycle of the project, any new information they identify, the control measures that have been adopted, and any consultations undertaken to develop these control measures.

Underpinning our commitment to a collaborative process for ongoing consultation that will have mutually beneficial outcomes and recognising that First Nations People hold the solutions for caring for Country, ConocoPhillips Australia will partner with First Nations People to implement a Cultural Heritage Protection Program that addresses the protection of Sea Country and includes the co-design of measures that will sufficiently protect the cultural features of the environment.

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C5: Commercial Fishers Consultation Report

Appendix C5: Commercial Fishers Consultation Report

1. Commercial Fishers Consultation

ConocoPhillips Australia commercial fishing measures were identified and informed through engagement with commercial fishers and their representative organisations who operate in the activity area. The process followed the fundamentals underpinning ConocoPhillips Australia's consultation efforts but allowed for a tailored approach to achieve a broad capture of fishers and fisheries, unique engagement and project planning, and provision of sufficient information specific to the stakeholders needs.

This process also facilitated two-way information sharing between ConocoPhillips Australia and the relevant persons, allowing the activity to be co-designed with measures in place to minimise any potential impacts.

1.1. Application of the ConocoPhillips Australia Consultation Framework & Principles of Guidance framework

In addition to the consultation framework and methodology outlined at 2.2, ConocoPhillips Australia has tailored and co-designed the engagement method to the individual needs of commercial fishers and their relevant organisations. The guidance framework, published by DSIR, NOPSEMA, DAFF and AFMA in February 2023 to help drive improved cooperation between the offshore petroleum industry and the fishing industry, was also considered.

Commercial Fishers, as with all relevant persons, were empowered throughout the process to determine how they were engaged with. This included nominating methods of engagement and requesting their consultation be through a specific representative body.

Other co-design considerations made include holding three dedicated Commercial Fishers round table discussions in the requested fishing ports (King Island, Warrnambool and Portland), postponing the date of a planned communication session due to consultation fatigue, and ensuring new dates were inclusive of representative organisations visits to the area.

Multiple attempts at communication were undertaken, using the contact information held for the fisher. For Commonwealth fishers, if email contact remained unsuccessful a registered letter was sent stating why Conoco Phillips Australia considered they may be a relevant person, enclosing an assessment of the potential environmental impact and risks to their activity, and the control measures identified and implemented (where appropriate). They were informed they would not be included further in relevant persons engagement but could respond and be engaged with if they wished to be. These 246 persons were categorised as 'Methodology Met – not relevant' and therefore are not included in the record of Relevant Persons Consultation.

1.2. Identification and Broad Capture of Commercial Fishers and Information

A methodology allowing broad capture of commercial fishers was implemented at the start of the consultation process, achieved by using both general community and industry specific tools. In the wider community the activity was advertised in print and online media, radio and television, and community information sessions, in which relevant persons were encouraged to self-identify. An activity website was created, containing resources such as an interactive map, document library, survey to establish relevancy, and a Q&A page with a dedicated section on potential impacts on commercial fishers. Key messaging promoted network information sharing and encouraged stakeholders to refer other potentially relevant persons. A comprehensive information sheet (ABU2-000-EX-RO1-D-00012), detailing activity information, a summary of the assessment of commercial fishing, potential effects and interactions on fishing operations, and a Q&A, was distributed in the wider community and during meetings with local fishing co-operatives, to provide a further opportunity for informed assessment of relevancy.

Concurrently, relevant associations for state and commonwealth fisheries were identified, contacted, and engaged on a fee-for-service arrangement, providing project information and updates, and facilitating information exchange with their members. This reduced consultation fatigue and facilitated sharing of activity

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and Community Information session details with both their members, and within local fishing community's social media pages (Screenshot_SIV_FB_Notice_230712).

A database of commonwealth fishers contact details were obtained via AFMA, and fishers contacted by email and then if required, registered post. Service organisations related to the commercial fishing industry were also contacted and invited to engage.

This broad, dual approach allowed for identification and information distribution, which promoted self-identification of commercial fishers.

1.3. Provision of Sufficient Relevant Information and Time

Following the NOPSEMA guidelines of early and genuine consultation, in-person and online meetings with commercial fishing representative organisations began in November of 2022, to discuss fee-for-service arrangements and/or engagement arrangements, provide a project overview and to receive feedback on the planned consultation approach. Following this feedback, industry specific information was provided to commercial fishers during initial stages of consultation in February 2023, to allow for assessment of potential impacts and co-design of engagement and activity. This included the comprehensive Commercial fishing information sheet, which captured the following:

- Summary of activity
- Key Information
- Map and coordinates, with local fishing ports labelled
- Assessment of Commercial Fishing
- Potential Effects on day-to-day Fishing Operations
- Potential interactions with commercial fishing
- Q and A’s
- Contact information

Round table and individual meetings with commercial fishers were held to facilitate information sharing. Continued meetings with representative bodies were also organised, providing them and their stakeholders information required, or requested, allowing for informed decision making and feedback.

This process has provided ConocoPhillips Australia the information required to minimise any potential impacts by putting carefully considered, and stakeholder reviewed, measures in place.

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C6: Public Comment Report

1. Public Comment Process

The Public Comment period commenced on 16 November 2023 for a 30-day period, closing on 18 December 2023. During this time 11,440 submissions were made to NOPSEMA about the Otway Exploration Drilling Program Environment Plan (EP). ConocoPhillips Australia established a rigorous process to ensure that adequate consideration was given to each public comment submission. The process is outlined below.

1.1. Stage 1 – Set-up

During the public comment period, ConocoPhillips Australia established a processing team to assess public comments and ensure that feedback was adequately addressed in the EP and responded to in the Titleholder's Report on Public Comment (Titleholder's Report), which was included with the resubmitted EP.

As the comments were received from NOPSEMA, the processing team performed the following initial tasks:

- Following notification from NOPSEMA that there were submissions in the portal, the NOPSEMA PST file and excel spreadsheet were downloaded and all data extracted into a processing file.
- A unique identifier was assigned to each public comment submission and batches of comments were allocated to processing team members.
- A list of themes was established based on themes that were identified during consultation and the preparation of the EP.

The theme list was refined over time, with the finalised theme list including:

- Impact and Risk Assessments, and Mitigation Measures
- Environmental and Ecological Information and Effects
- Marine Mammals
- Fish, Sharks, Invertebrates and Fisheries
- Birds
- Consultation
- Tourism Recreation and Communities
- First Nations People, Heritage and Culture
- Climate Change
- Oil Spills
- Other
- Out of Scope

1.2. Stage 2 – Initial Processing

Members of the processing team read and considered each of their allocated submissions to:

- Identify relevant persons
- Assess claims relating to the activity to which the EP relates, and
- Assign each claim to one or a number of themes from the theme list.

The processing team also assigned one of the following categories to each comment:

- Templates (where a public comment was provided by an external entity and used by multiple individuals)
- Templates with additional detail added, and
- Unique submissions.

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1.3. Stage 3 – Quality Assurance

The Subject Matter Expert (SME) Team then reviewed each claim to ensure that it was a claim (not a statement, question or other) and that the correct theme/s were allocated to the claim.

Automated data checks were also used to quality assure the work that had been performed (e.g., checking for existing relevant persons and checking for attachments).

1.4. Stage 4 – Collation, Responses, Updates to EP and Titleholder's Report

Within each theme, claims with similar content were collated into 'Matters'. If several comments were received raising common issues about the effect of the petroleum activity on a particular environmental sensitivity or group of sensitives (e.g. a particular threatened species, the values of a particular habitat or protected places, or a specific fishery), these were grouped into 'Key Matters'.

ConocoPhillips Australia considered each Matter and prepared a response to each of the issues or themes raised in its Titleholder's Report.

Although a separate response to each comment received was not provided, representative claims were reflected under each identified matter to maintain the intent and key claims associated with the public comments, thereby avoiding overly broad generalisations of information and demonstrating transparency.

Matters identified in the public comment submissions that were relevant to the environmental management of the proposed Otway Exploration Drilling Program were considered in the preparation of the resubmitted EP.

In considering each Matter, ConocoPhillips Australia determined if the Matter and associated claims related to the environment management of the activity, and:

- if comments related to the EP, or the activity to which the EP relates, a response was prepared for the Titleholder's Report to explain how the Matter and associated claims were taken into account or otherwise reflected in the resubmitted EP (with references to sections where changes were made) or by explaining how the matter had already been accounted for in the original EP, and
- if comments did not relate to the EP, or the activity to which the EP relates, a response was prepared for the Titleholder's Report to explain that the comments were not considered further in preparing the EP because they were not relevant.

The Titleholder's Report was then compiled with the responses referred to above, peer reviews were conducted to quality assure the information provided in responses and documentation was maintained to identify where each claim was addressed within the Titleholder's Report.

1.5. Stage 5 – Consultation

Although titleholders are not required to communicate with public commenters directly, ConocoPhillips Australia undertook further consultation by:

- sending individual response letters to relevant persons it consulted with prior to the initial submission of the EP,
- attempting to engage with persons who had indicated in their submission (expressly or impliedly) that they have a function, interest or activity that may be affected by the proposed activity, and sending individual response letters to persons that claimed they were a 'relevant person' or otherwise wished to be consulted further, and
- providing general updates to persons who had requested ongoing communication.

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APPENDIX D SENSITIVE INFORMATION REPORT

Appendix D: Sensitive Information Part (24(b)(iv))

- To comply with section 26(8) of the OPGGS(E)R, the full text of all responses by relevant individuals engaged under section 25 and any other sensitive information (if applicable) must be included in a sensitive information report.
- This report satisfies the remainder of section 24 and section 26(8) by containing full text responses by relevant persons and any additional sensitive information. This report will not be published.

NOTE: Appendix D is not publicly available and is provided to NOPSEMA only, as it contains confidential information.

APPENDIX E OIL SPILL MODELLING REPORTS

CONOCOPHILLIPS EXPLORATION PERMIT T/49P MARINE DIESEL SPILL MODELLING

Report

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TERMS AND ABBREVIATIONS

Actionable oil	Oil which is thick enough for the effective use of mitigation strategies
AMSA	Australian Maritime Safety Authority
API	American Petroleum Institute gravity. A measure of how heavy or light a petroleum liquid is compared to water.
Bonn Agreement	An agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances, 1983, includes: Governments of the Kingdom of Belgium, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Republic of Ireland, the Kingdom of the Netherlands, the Kingdom of Norway, the Kingdom of Sweden, the United Kingdom of Great Britain and Northern Ireland and the European Union.
BP	Boiling point. The temperature at which the vapor pressure of the liquid is equal to the pressure exerted on it by the surrounding atmosphere
BTEX	Benzene, toluene, ethylbenzene, and xylenes
Decay	The process where oil components are changed either chemically or biologically (biodegradation) to another compound. It includes breakdown to simpler organic carbon compounds by bacteria and other organisms, photo-oxidation by solar energy, and other chemical reactions.
Deterministic (single) spill modelling	Oil spill modelling involving a computer simulation of a single hypothetical oil spill event subject to a single sequence of wind, current and other sea conditions over time. Single oil spill modelling, also referred to as “deterministic modelling” provides a simulation of one possible outcome of a given spill scenario, subject to the metocean conditions that are imposed. Single oil spill modelling is commonly used to consider the fate and effects of ‘worst-case’ oil spill scenarios that are carefully selected in consideration of the nature and scale of the offshore petroleum activity and the local environment (NOPSEMA, 2017). Because the outcomes of a single oil spill simulation can only represent the outcome of that scenario under one sequence of metocean conditions, worst-case conditions are often identified from stochastic modelling. It is impossible to calculate the likelihood of any outcome from a single oil spill simulation. Single oil spill modelling is generally used for response planning, preparedness planning and for supporting oil spill response operations in the event of an actual spill
Dynamic viscosity	The dynamic viscosity of a fluid expresses its resistance to shearing flows, where adjacent layers move parallel to each other with different speeds.
Floating oil exposure	Contact by floating oil on the sea surface at concentrations equal to or exceeding defined threshold concentrations. The consequence will vary depending on the threshold and the receptors
GODAE	Global Ocean Data Assimilation Experiment
HYCOM	Hybrid Coordinate Ocean Model. A data-assimilative, three-dimensional ocean model
HYDROMAP	Advanced ocean/coastal tidal model used to predict tidal water levels, current speed and current direction.
ITOPF	International Tanker Owners Pollution Federation Limited
MAHs	Monoaromatic hydrocarbons
MMA	Marine Management Area
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
PAH	Polynuclear aromatic hydrocarbons
Pour point	The pour point of a liquid is the temperature below which the liquid loses its flow characteristics
Ramsar site	A site listed under the Ramsar Convention on wetlands which is an international intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.

Shoreline accumulation	Arrival of oil at or near shorelines at on-water concentrations equal to or exceeding defined threshold concentrations. Shoreline contact is judged for floating oil arriving within a 2 km buffer zone from any shoreline as a conservative measure
SIMAP	Spill Impact Model Application Package. SIMAP is designed to simulate the fate and effects of spilled hydrocarbons for surface or subsea releases
Stochastic (multiple) spill modelling	Stochastic oil spill modelling is created by overlaying and statistically analysing the outcomes of many single oil-spill simulations of a defined spill scenario, where each simulation was subject to a different sequence of metocean conditions, selected objectively (typically by random selection) from a long sequence of historic conditions for the study area. Analysis of this larger set of simulations provides a more accurate indication of the environment that maybe affected (EMBA) and indicates which locations are more likely to be affected (as well as other statistics). Stochastic oil spill modelling avoids biases that affect single oil spill modelling (due to the reliance on only one possible sequence of conditions). However, when interpreting stochastic modelling, which is based on a wide range of potential conditions that might happen to occur, it is essential to understand that calculations will encompass a much larger area than could be affected in any single spill event, where a more limited set of conditions will occur. Consequently, it is misleading to imply that the region derived from stochastic modelling indicate the outcomes expected from a single spill event (NOPSEMA, 2017) Stochastic modelling is generally used for risk assessment and preparedness planning by indicating locations that could be exposed and may require response or subsequent impact assessment
World Ocean Atlas	A collection of objectively analysed quality controlled physicochemical parameters (e.g. temperature, salinity, oxygen, phosphate, silicate, and nitrate) based on profile data from the World Ocean Database established by NOAA's National Centers for Environmental Information (NCEI)

EXECUTIVE SUMMARY

Background

ConocoPhillips Australia SH1 Pty Ltd (ConocoPhillips) is considering an exploration drilling campaign in Permit T/49P in Commonwealth waters. The closest points of the permit area are 23.5 km from the west coast of King Island and 26 km from the Victorian coast. Water depths in the permit area range from 70 m to 1,000 m, with approximately 90% of the survey area being in water depths less than 150 m.

To support the environmental approvals, an additional oil spill modelling study was undertaken to assess the potential exposure from a 350 m^3 release of Marine Diesel Oil (MDO) over 6 hours due to a loss of containment following a vessel collision. The oil spill modelling used the same three locations as the recent subsea loss of well control (LOWC) study.

The study assessed the potential risk of exposure to the surrounding waters and shorelines for two seasons, summer months (October to March) and winter conditions (April to September). This approach assists with identifying the environmental values and sensitive regions/receptors that would be at risk of exposure on a seasonal basis, given the dominant winds and water currents that vary among the seasons.

One of the purposes of the modelling is to define the 'outer boundaries' of the environment that may be affected (EMBA) in the unlikely event of a hydrocarbon release scenario. Therefore, the modelling does not take into consideration any of the spill prevention, mitigation and response capabilities that would be implemented in response to the spill.

The spill modelling was performed using an advanced three-dimensional trajectory and fates model; Spill Impact Model Application Package (SIMAP). The SIMAP model calculates the transport, spreading, entrainment and evaporation of spilled hydrocarbons over time, based on the prevailing wind and current conditions and the physical and chemical properties.

Methodology

The modelling study was carried out in stages. Firstly, a 10-year current dataset (2010 – 2019) that includes the combined influence of large-scale ocean and nearshore tidal currents were prepared. Secondly, the currents, local winds and detailed hydrocarbon characteristics were used as inputs in the three-dimensional oil spill model (SIMAP) to simulate the drift, spread, weathering and fate of the spilled hydrocarbons.

Modelling was conducted using a stochastic approach, which involved running 100 spills for each season, for each scenario and location with each simulation having the same information (i.e. location volume and oil properties) but randomly selected start times to ensure a range of wind and current conditions were assessed. Once all 100 simulations were run for a given scenario and location, the results were combined to determine the seasonal exposure to the surrounding waters, shorelines and sensitive receptors based on the thresholds outlined in the NOPSEMA Oil Spill Modelling Bulletin (NOPSEMA 2019).

Hydrocarbon Properties

The MDO used in this study has a density of 829.1 kg/m^3 (API gravity of 37.6) and a dynamic viscosity of 4.0 cP at 25ºC. The MDO is characterised by a high percentage of volatile components (95%), which will evaporate when on the sea surface. It also contains 5% persistent hydrocarbons, which will not evaporate, though will decay over time. Additionally, the MDO classified as a Group II light persistent oil. It is important to note that some heavy components contained in MDO have a strong tendency to physically entrain into the upper water column in the presence of moderate winds (i.e. >12 knots) and breaking waves but can re-float to the surface when the winds ease.

Key Findings

Location 1

- The maximum distance from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 49.8 km (winter), 15.5 km (summer) and 4.0 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during winter at 12%, while the minimum time before shoreline accumulation at the low threshold was 4.25 days predicted during winter. The maximum total volume of oil ashore was predicted during the winter with 8.2 m^3.
- The maximum distance from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 92 km (winter) and 12 km (summer), respectively. No exposure at the high (400 ppb) threshold was predicted.
- The maximum distance from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 648 km (winter) and 148 km (winter), respectively.

Location 2

- The maximum distance from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 42.7 km (winter), 19.2 km (summer) and 5.2 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during winter at 68%, while the minimum time before shoreline accumulation at the low threshold was 1.50 days predicted during winter. The maximum total volume of oil ashore was predicted during the winter with 47.4 m^3.
- The maximum distance from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 89 km (winter) and 13 km (summer), respectively. No exposure at the high (400 ppb) threshold was predicted.
- The maximum distance from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 356 km (winter) and 150 km (winter), respectively.

Location 3

- The maximum distance from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 60.0 km (winter), 28.3 km (winter) and 4.7 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during winter at 33%, while the minimum time before shoreline accumulation at the low threshold was 2.29 days predicted during winter. The maximum volume of oil ashore was predicted during the winter with 28.8 m^3.
- The maximum distance from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 94 km (winter) and 15 km (summer), respectively. No exposure at the high (400 ppb) threshold was predicted.

- The maximum distance from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 497 km (winter) and 157 km (winter), respectively.

1 BACKGROUND

1.1 Introduction

ConocoPhillips Australia SH1 Pty Ltd (ConocoPhillips) is considering an exploration drilling campaign in Permit T/49P, in Commonwealth waters. The closest points from the permit area are the west coast of King Island (23.5 km east) and Victorian coastline (26 km north). Water depths in the permit area range from 70 m to 1,000 m, with approximately 90% of the survey area being in water depths less than 150 m.

To support the environmental approvals, Xodus on behalf of ConocoPhillips had commissioned RPS to undertake an additional oil spill modelling study, which assessed the potential exposure from a 350 m^3 release of Marine Diesel Oil (MDO) over 6 hours due to a loss of containment following a vessel collision.

The oil spill modelling used the same three locations as the recent subsea loss of well control (LOWC) study, and Table 1.1 presents the coordinates of the release locations and Figure 1.1 is the location map.

The potential exposure to the surrounding waters and shorelines were assessed for summer (October to March) and winter (April to September) seasons.

One of the purposes of the modelling is to define the 'outer boundaries' of the environment that may be affected (EMBA) in the unlikely event of a hydrocarbon release scenario. Therefore, the modelling does not take into consideration any of the spill prevention, mitigation and response capabilities that would be implemented in response to the spill.

The spill modelling was performed using an advanced three-dimensional trajectory and fates model; Spill Impact Model Application Package (SIMAP). The SIMAP model calculates the transport, spreading, entrainment and evaporation of spilled hydrocarbons over time, based on the prevailing wind and current conditions and the physical and chemical properties.

The hydrocarbon spill model, the method and analysis applied herein uses modelling algorithms which have been peer reviewed and published in international journals. Further, RPS warrants that this work meets and exceeds the American Society for Testing and Materials (ASTM) Standard F2067-13 "*Standard Practice for Development and Use of Oil Spill Models*".

Table 1.1 T/49P hydrocarbon spill modelling release locations.

Release location	Latitude*	Longitude*	Water depth (m)
Location 1	39° 15' 46.6" S	143° 20' 26.4" E	93
Location 2	39° 47' 49.7" S	143° 30' 46.3" E	100
Location 3	40° 13' 5.3" S	143° 29' 10.9" E	114

*Datum: WGS 1984

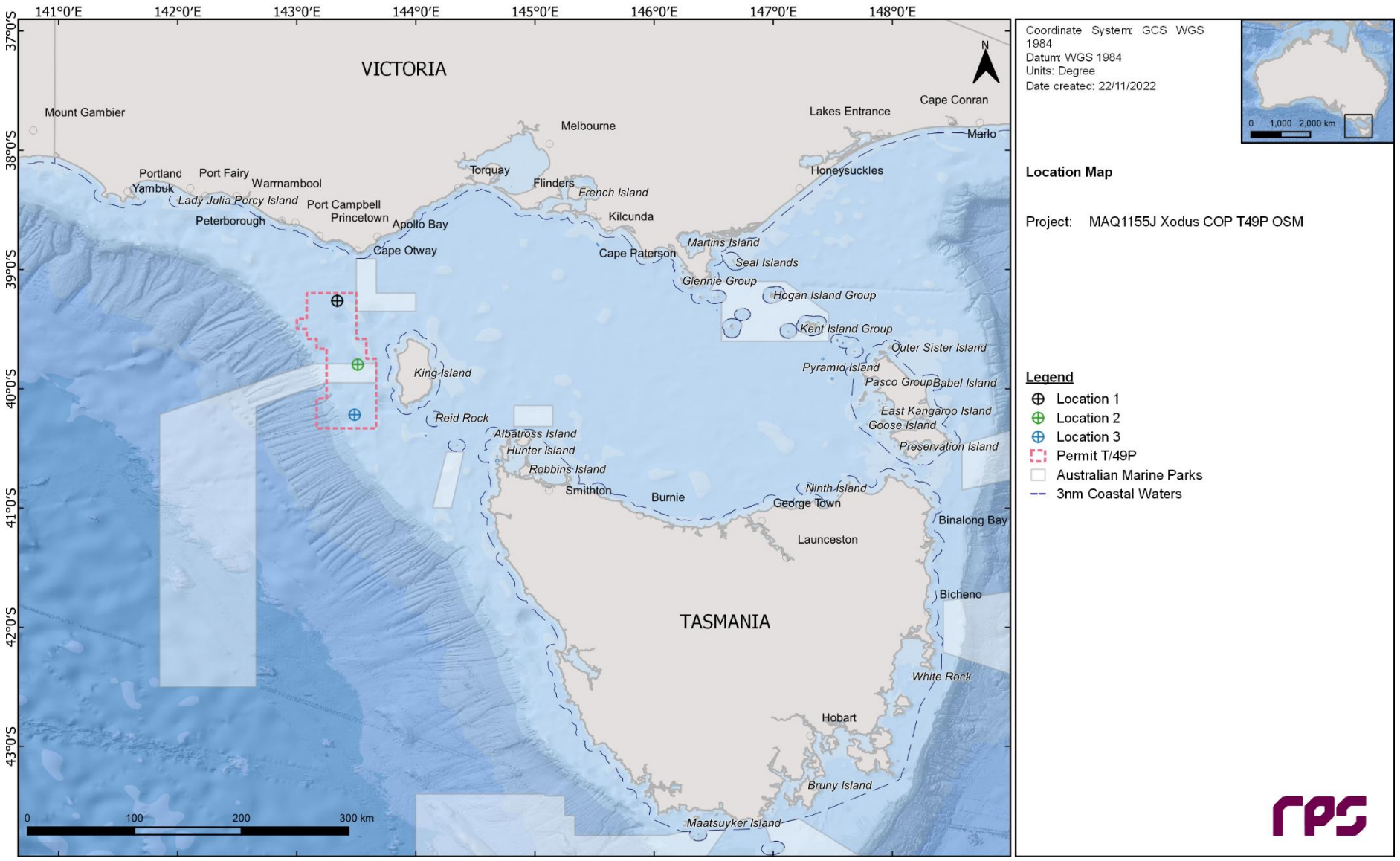


Figure 1.1 T/49P hydrocarbon spill modelling release locations.

1.2 What is Oil Spill Modelling?

Oil spill modelling is a valuable tool widely used for risk assessment, emergency response and contingency planning where it can be particularly helpful to proponents and decision makers. By modelling a series of the most likely oil spill scenarios, decisions concerning suitable response measures and strategic locations for deploying equipment and materials can be made, and the locations at most risk can be identified. The two types of oil spill modelling often used are stochastic (Section 1.2.1) and deterministic (Section 1.2.2) modelling.

1.2.1 Stochastic Modelling (Multiple Spill Simulations)

Stochastic oil spill modelling is created by overlaying a great number (often hundreds) of individual, computer-simulated hypothetical spills (NOPSEMA, 2018; Figure 1.2).

Stochastic modelling is a common means of assessing the potential risks from oil spills related to new projects and facilities. Stochastic modelling typically utilises hydrodynamic data for the location in combination with historic wind data. Typically, 100 iterations of the model will be run utilising the data that is most relevant to the season or timing of the project.

The outcomes are often presented as a probability of exposure and is primarily used for risk assessment purposes in view to understand the range of environments that may be affected or impacted by a spill. Elements of the stochastic modelling can also be used in oil spill preparedness and planning.

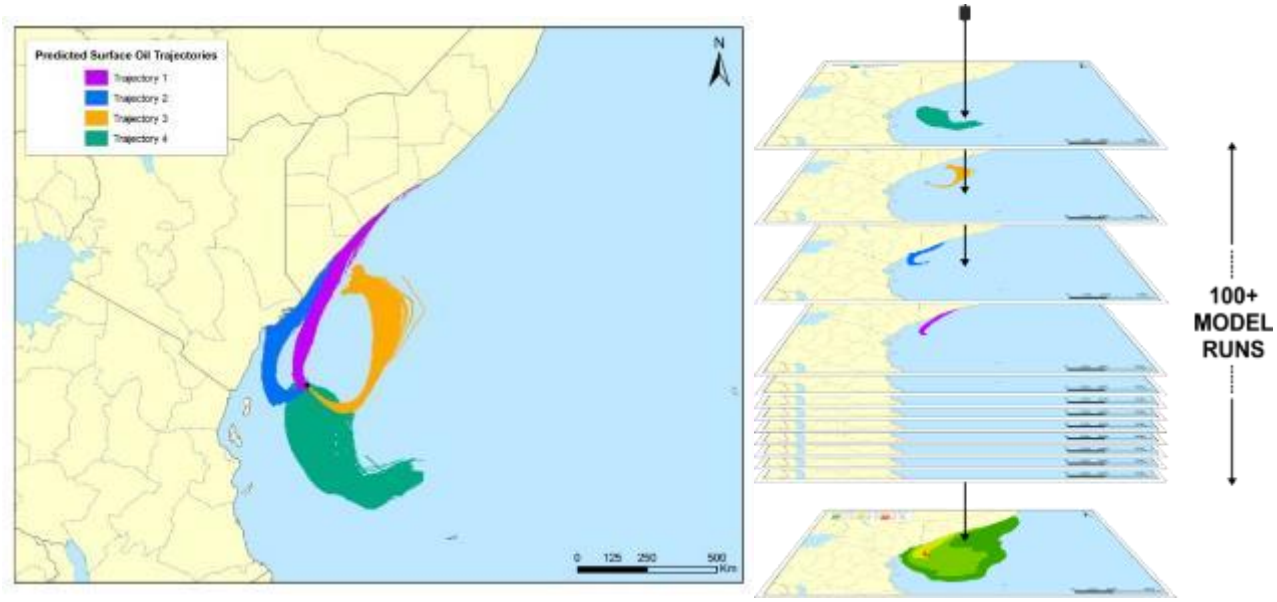


Figure 1.2 Examples of four individual spill trajectories (four replicate simulations) predicted by SIMAP for a spill scenario. The frequency of contact with given locations is used to calculate the probability of impacts during a spill. Essentially, all model runs are overlain (shown as the stacked runs on the right) and the number of times that trajectories contact a given location at a concentration is used to calculate the probability.

1.2.2 Deterministic Modelling (Single Spill Simulation)

Deterministic modelling is the predictive modelling of a single incident subject to a single sample of wind and weather conditions over time (NOPSEMA, 2018; Figure 1.3).

Deterministic modelling is often paired with stochastic modelling to place the large stochastic footprint into perspective. This deterministic analysis is generally a single run selected from the stochastic analysis and serves as the basis for developing the plans and equipment needs for a realistic spill response. Deterministic spills can be selected on based on parameters such as minimum time to shoreline, largest swept area, maximum volume ashore and longest length of shoreline contacted by hydrocarbons.

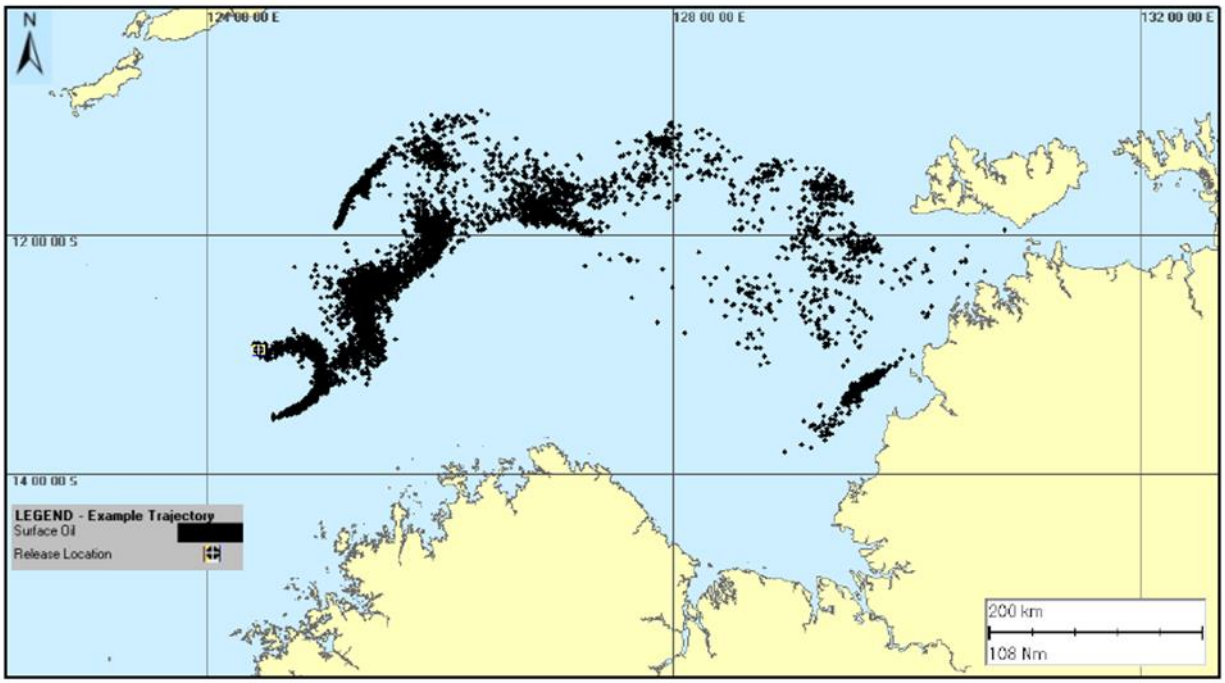


Figure 1.3 Example of an individual spill trajectory predicted by SIMAP for a spill scenario. Note, this image represents surface oil as spill and does not take any thresholds into consideration.

2 SCOPE OF WORK

The scope of work included the following components:

1. Generate 10 years (2010 to 2019 (inclusive)) of wind and current data. The three-dimensional current data includes the combined influence of ocean and tidal currents;
2. Include the wind and current data and the hydrocarbon characteristics as input into the three-dimensional oil spill model, SIMAP, to model the movement, spreading, weathering and shoreline accumulation by hydrocarbons over time;
3. Run 100 oil spill simulations per season (200 total per location), with each simulation having the same spill information (i.e. location volume and oil properties) but varying start times. This ensured that each spill trajectory was subjected to a unique set of wind and current conditions;
4. Combine the results from the 100 spill simulations (per season) per location to assess the exposure to waters and shoreline accumulation based upon the NOPSEMA thresholds;
5. Present the combined results from the 200 spill simulations, per location, to assess the low threshold environment that maybe affected (EMBA); and
6. From the 200 simulations modelled for each location identify and present the “worst case” deterministic run resulting in the maximum volume of hydrocarbons ashore. From the results for all three locations, identify and present the deterministic simulations resulting in: a) largest area of floating hydrocarbon exposure; b) minimum time to shoreline exposure; and c) longest length of shoreline accumulation.

3 REGIONAL CURRENTS

The Otway Basin lies within the western portion of the Bass Strait, a sea strait separating Tasmania from the southern Australian mainland. The strait is a relatively shallow area of the continental shelf, connecting the southeast Indian Ocean with the Tasman Sea. This region has a reputation for high winds and strong tidal currents (Jones, 1980). Currents are primarily driven by tides, winds and density driven flows. During winter the South Australian current moves dense, salty water eastward from the Great Australian Bight into the western margin of the Bass Strait (Sandery & Kämpf, 2007). In winter and spring, waters within the strait are well mixed with no obvious stratification, while during summer the central regions of the strait become stratified (Baines & Fandry, 1983; Middleton & Black, 1994).

Figure 3.1 displays seasonal current trends within the Otway Basin-Bass Strait region. During winter there is a strong eastward water flow due to the strengthening of the South Australian Current (fed by the Leeuwin Current in the Northwest Shelf), which bifurcates with one extension moving though the Bass Strait, and another forming the Zeehan Current off western Tasmania (Sandery & Kämpf, 2007). During summer, water flow reverses off Tasmania, King Island and the Otway Basin travelling eastward, as the coastal current develops due to south-easterly winds.

Therefore, to accurately account for the movement of an oil spill, which can move between the offshore and near shore region, ocean and tidal currents were combined as part of the study. The following sections provide a summary of the regional current data set.

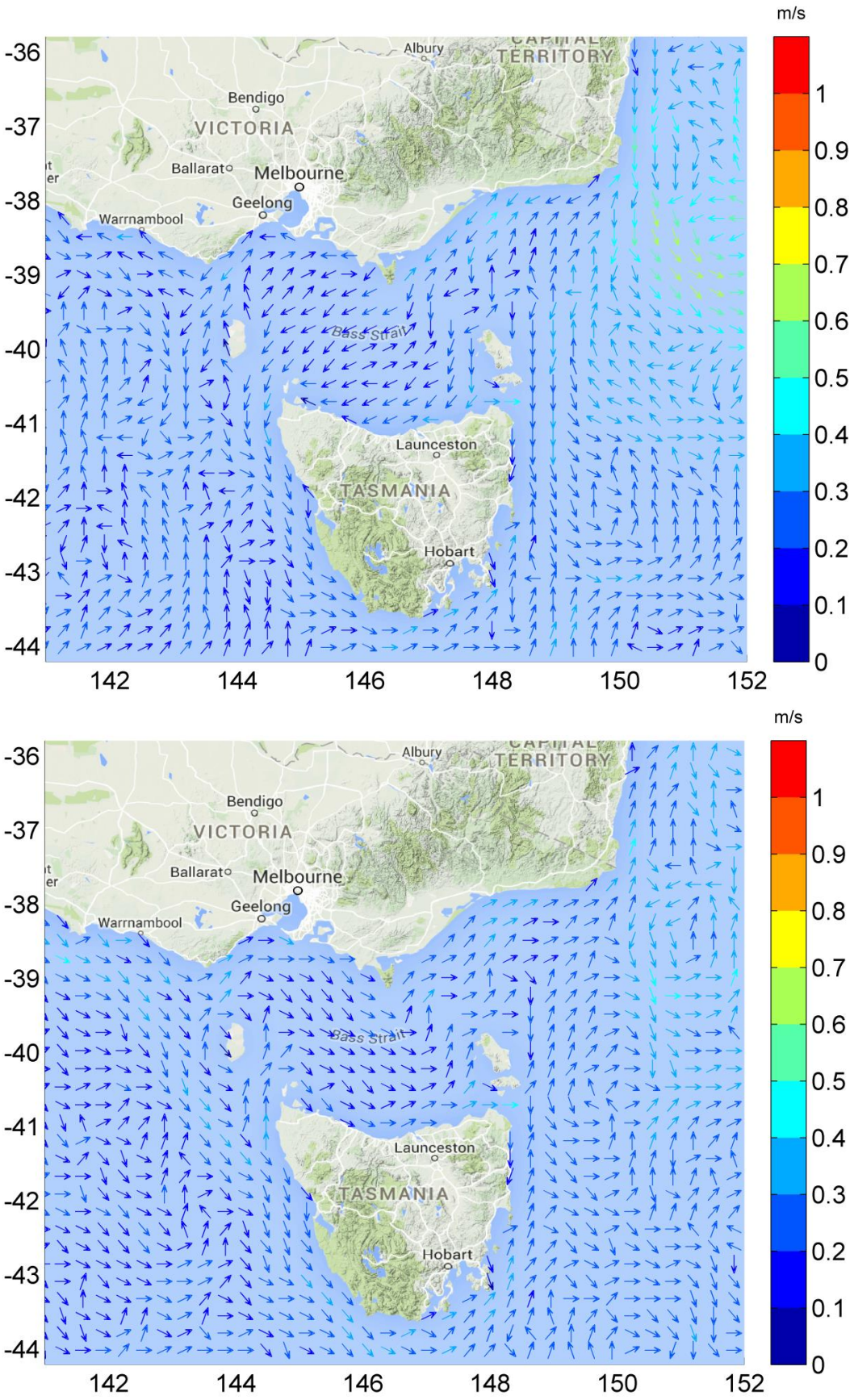


Figure 3.1 HYCOM averaged seasonal surface drift currents during summer (upper image) and winter (lower image).

3.1 Tidal currents

Tidal current data was generated using RPS's advanced ocean/coastal model, HYDROMAP. The HYDROMAP model has been thoroughly tested and verified through field measurements throughout the world for more than 30 years (Isaji & Spaulding, 1984; Isaji, et al., 2001; Zigic, et al., 2003). HYDROMAP tidal current data has been used as input to forecast (in the future) and hindcast (in the past) pollutant spills in Australian waters and forms part of the Australian National Oil Spill Emergency Response System operated by AMSA (Australian Maritime Safety Authority).

HYDROMAP employs a sophisticated sub-gridding strategy, which supports up to six levels of spatial resolution, halving the grid cell size as each level of resolution is employed. The sub-gridding allows for higher resolution of currents within areas of greater bathymetric and coastline complexity, and/or of interest to a study.

The numerical solution methodology follows that of Davies (1977a 1977b) with further developments for model efficiency by Owen (1980) and Gordon (1982). A more detailed presentation of the model can be found in Isaji & Spaulding (1984) and Isaji et al. (2001).

3.1.1 Grid Setup

The tidal model domain has been sub-gridded down to a resolution of 500 m for shallow and coastal regions, starting from an offshore (or deep water) resolution of 8 km. The finer grids were allocated in a step-wise fashion to resolve flows more accurately along the coastline, around islands and over regions with more complex bathymetry. Figure 3.2 shows the tidal model grid covering the study domain.

A combination of datasets was used and merged to describe the shape of the seabed within the grid domain (Figure 3.3). These included spot depths and contours which were digitised from nautical charts released by the hydrographic offices as well as Geoscience Australia database and depths extracted from the Shuttle Radar Topography Mission (SRTM30_PLUS) Plus dataset (see Becker et al., 2009).

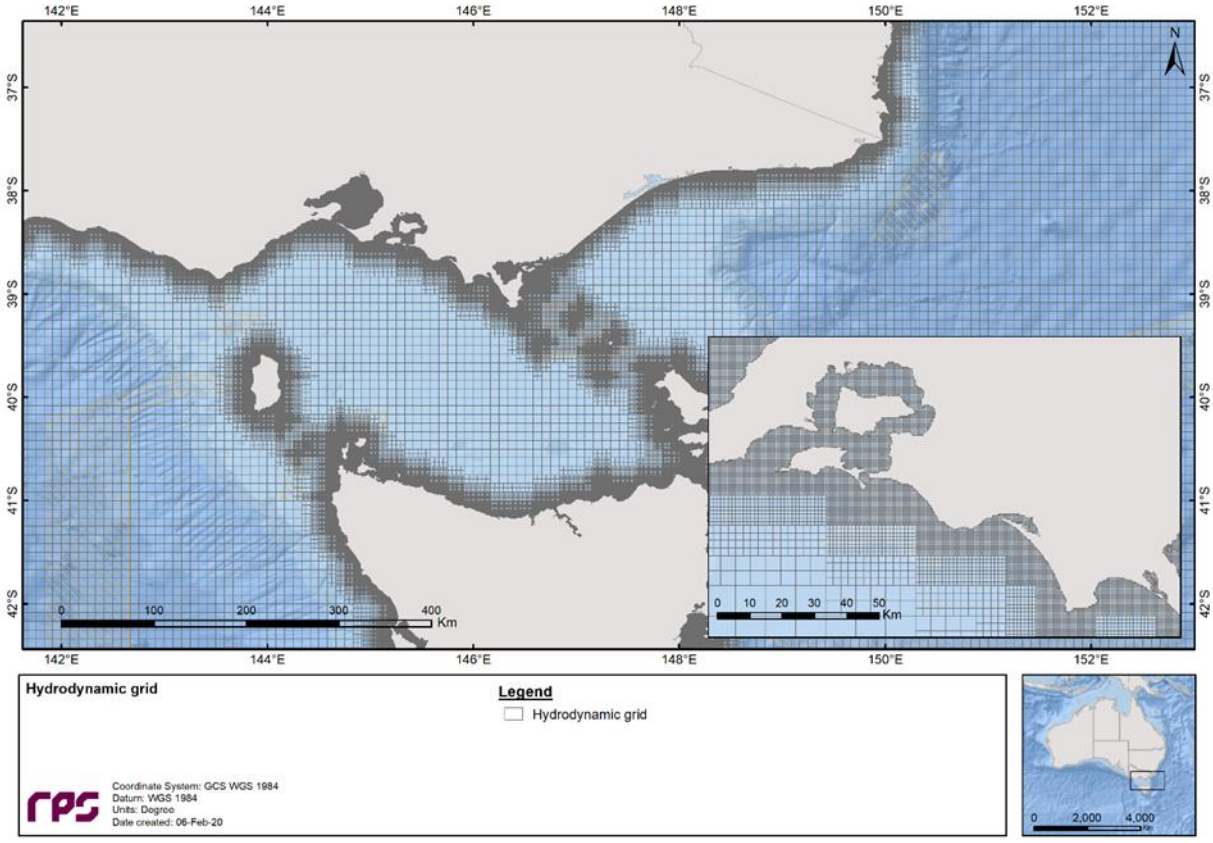


Figure 3.2 Sample of the model grid used to generate the tidal currents for the study region. Higher resolution areas are shown by the denser mesh.

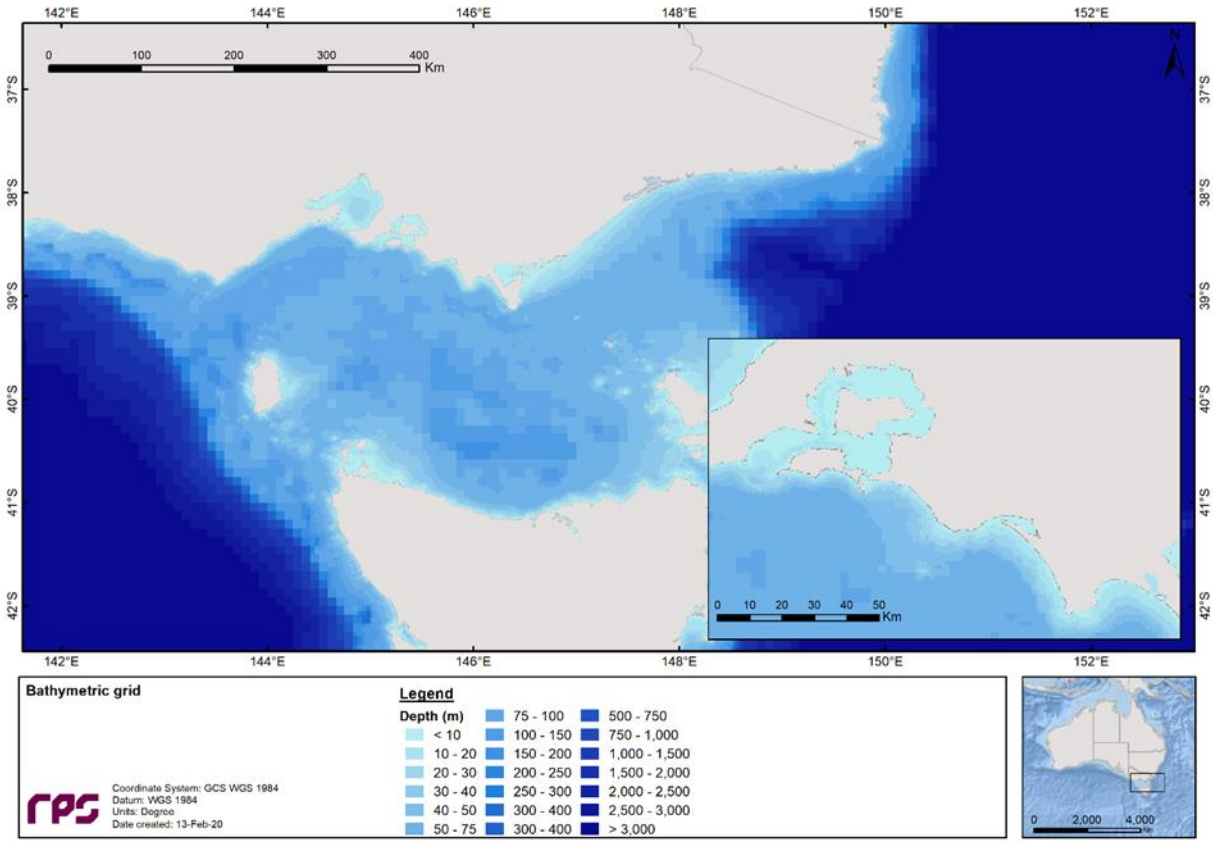


Figure 3.3 Bathymetry defined throughout the tidal model domain.

3.1.2 Tidal Conditions

The ocean boundary data for the regional model was obtained from satellite measured altimetry data (TOPEX/Poseidon 8.0) which provided estimates of the eight dominant tidal constituents at a horizontal scale of approximately 0.25 degrees. The eight major tidal constituents used were K_2, S_2, M_2, N_2, K_1, P_1, O_1 and Q_1. Using the tidal data, time series surface heights were calculated along the open boundaries for the simulation period.

The Topex/Poseidon satellite data has a resolution of 0.25 degrees globally, with higher resolution in coastal regions, and is produced and quality controlled by NASA (National Aeronautics and Space Administration). The data capturing satellites, equipped with two altimeters capable of taking sea level measurements accurate to less than ± 5 cm, measured oceanic surface elevations (and the resultant tides) for the period 1992–2005. In total these satellites carried out 62,000 orbits of the planet. The Topex/Poseidon tidal data has been widely used amongst the oceanographic community, being referenced in more than 2,100 research publications (e.g., Andersen, 1995; Ludicone et al., 1998; Matsumoto et al., 2000; Kostianoy et al., 2003; Yaremchuk & Tangdong, 2004; Qiu & Chen, 2010). The Topex/Poseidon tidal data is considered suitably accurate for this study.

3.2 Ocean Currents

Data describing the flow of ocean currents was obtained from HYCOM (Hybrid Coordinate Ocean Model, (Chassignet et al., 2007), which is operated by the HYCOM Consortium, sponsored by the Global Ocean Data Assimilation Experiment (GODAE). HYCOM is a data-assimilative, three-dimensional ocean model that is run as a hindcast (for a past period), assimilating time-varying observations of sea surface height, sea surface temperature and in-situ temperature and salinity measurements (Chassignet et al., 2009). The HYCOM predictions for drift currents are produced at a horizontal spatial resolution of approximately 8.25 km ($1/12^{th}$ of a degree) over the region, at a frequency of three-times per day. HYCOM uses isopycnal layers in the open, stratified ocean, but uses the layered continuity equation to make a dynamically smooth transition to a terrain-following coordinate in shallow coastal regions, and to z-level coordinates in the mixed layer and/or unstratified seas.

For this study, the HYCOM hindcast currents were obtained for the years 2010 to 2019 (inclusive).

3.3 Surface Currents

Figure 3.4 to Figure 3.6 show the monthly current rose distributions for the three locations, while Figure 3.7 to Figure 3.9 illustrate the total current rose distributions.

Note the convention for defining current direction is the direction the current flows towards, which is used to reference current direction throughout this report. Each branch of the rose represents the currents flowing to that direction, with north to the top of the diagram. Sixteen directions are used. The branches are divided into segments of different colour, which represent the current speed ranges for each direction. Speed intervals of 0.1 m/s are predominantly used in these current roses. The length of each coloured segment is relative to the proportion of currents flowing within the corresponding speed and direction.

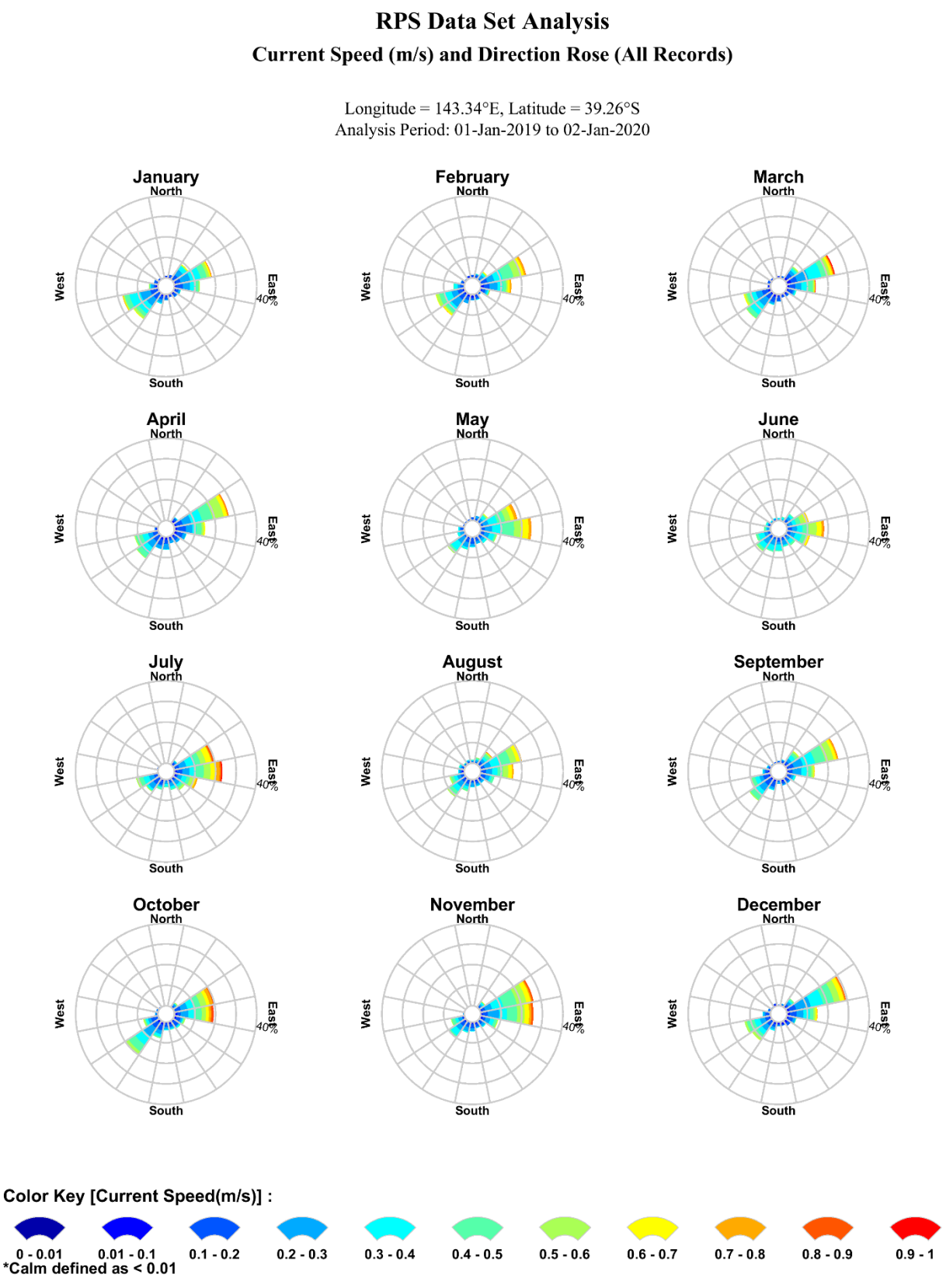


Figure 3.4 Monthly surface current rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

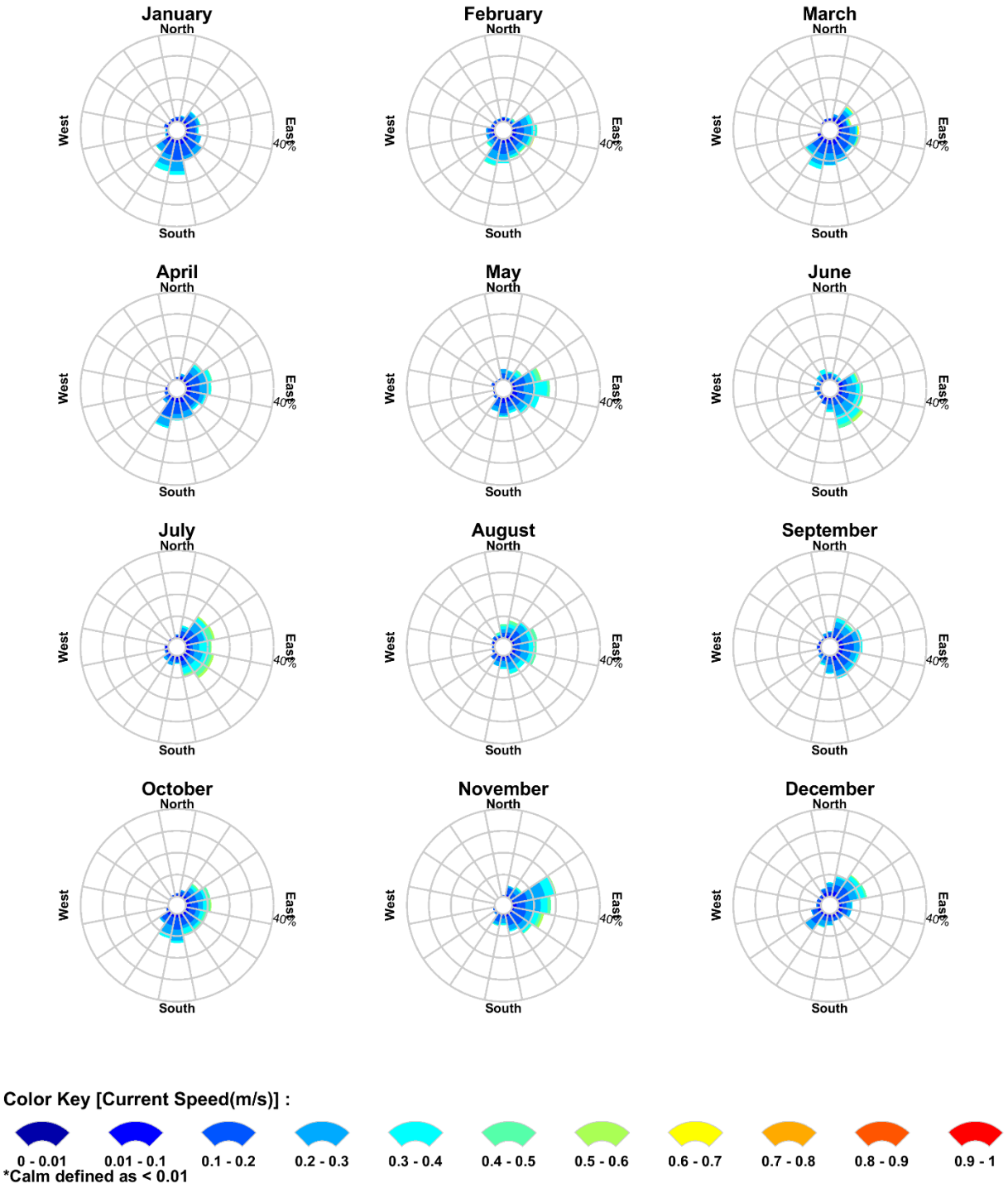


Figure 3.5 Monthly surface current rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

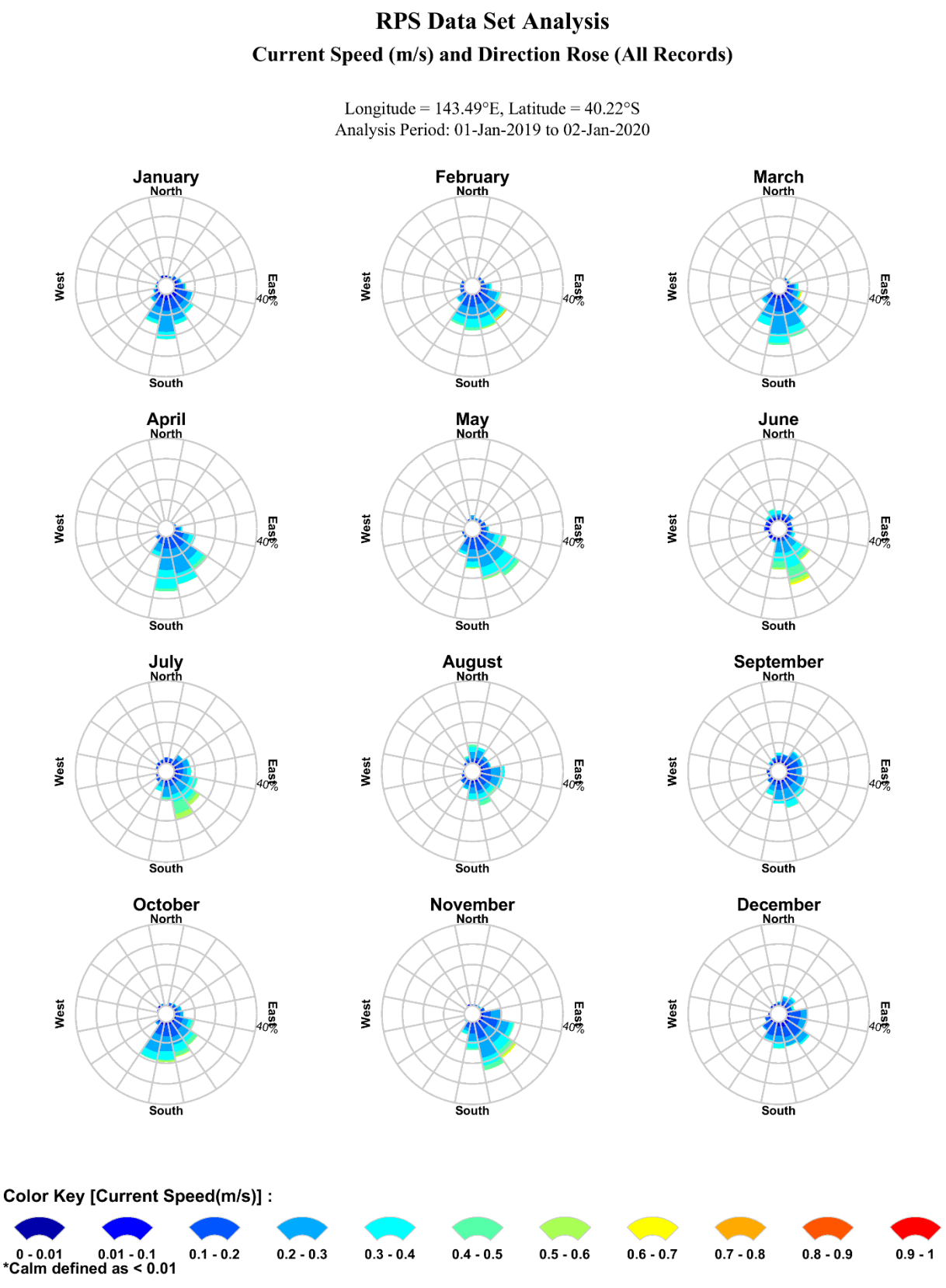


Figure 3.6 Monthly surface current rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

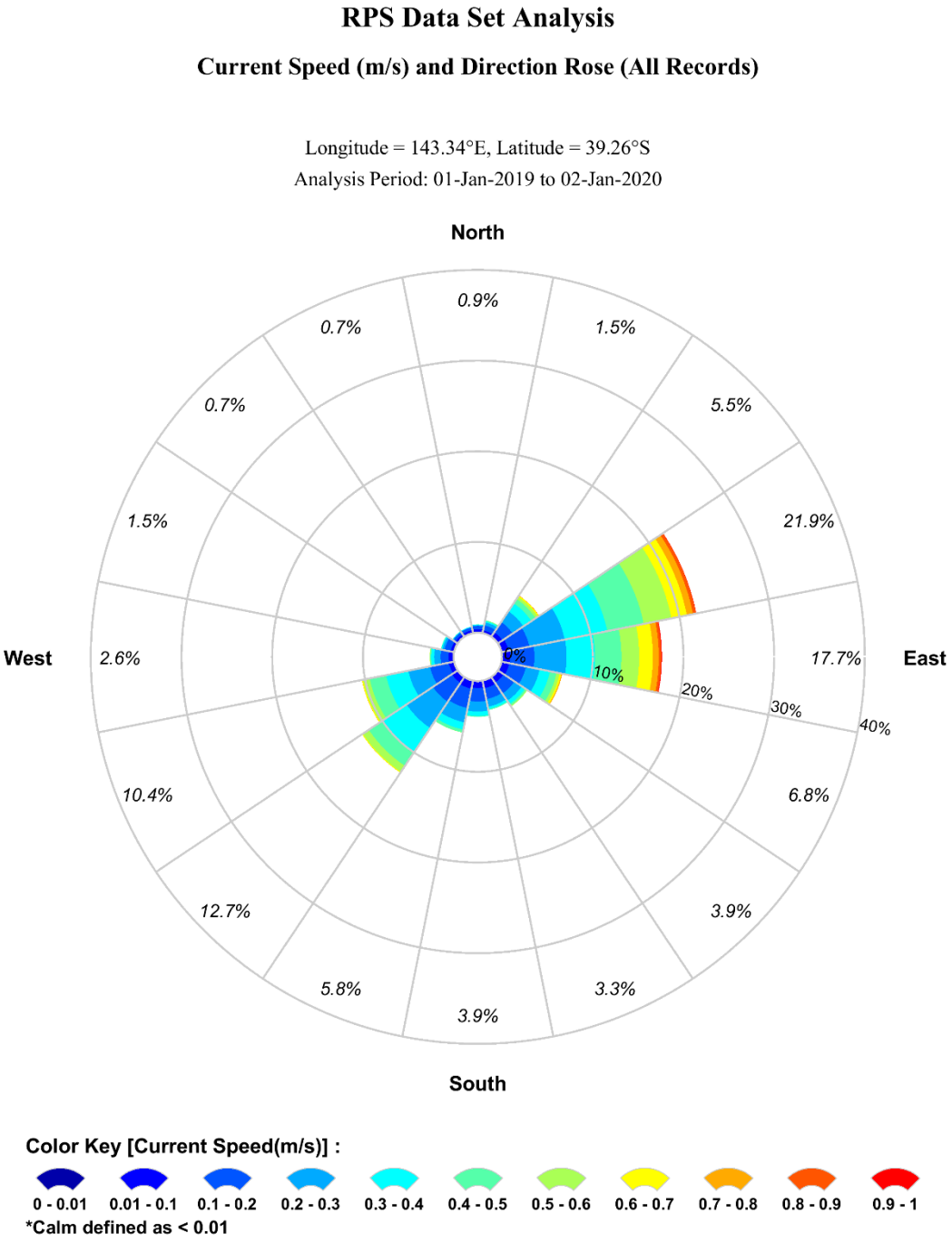


Figure 3.7 Total surface current rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

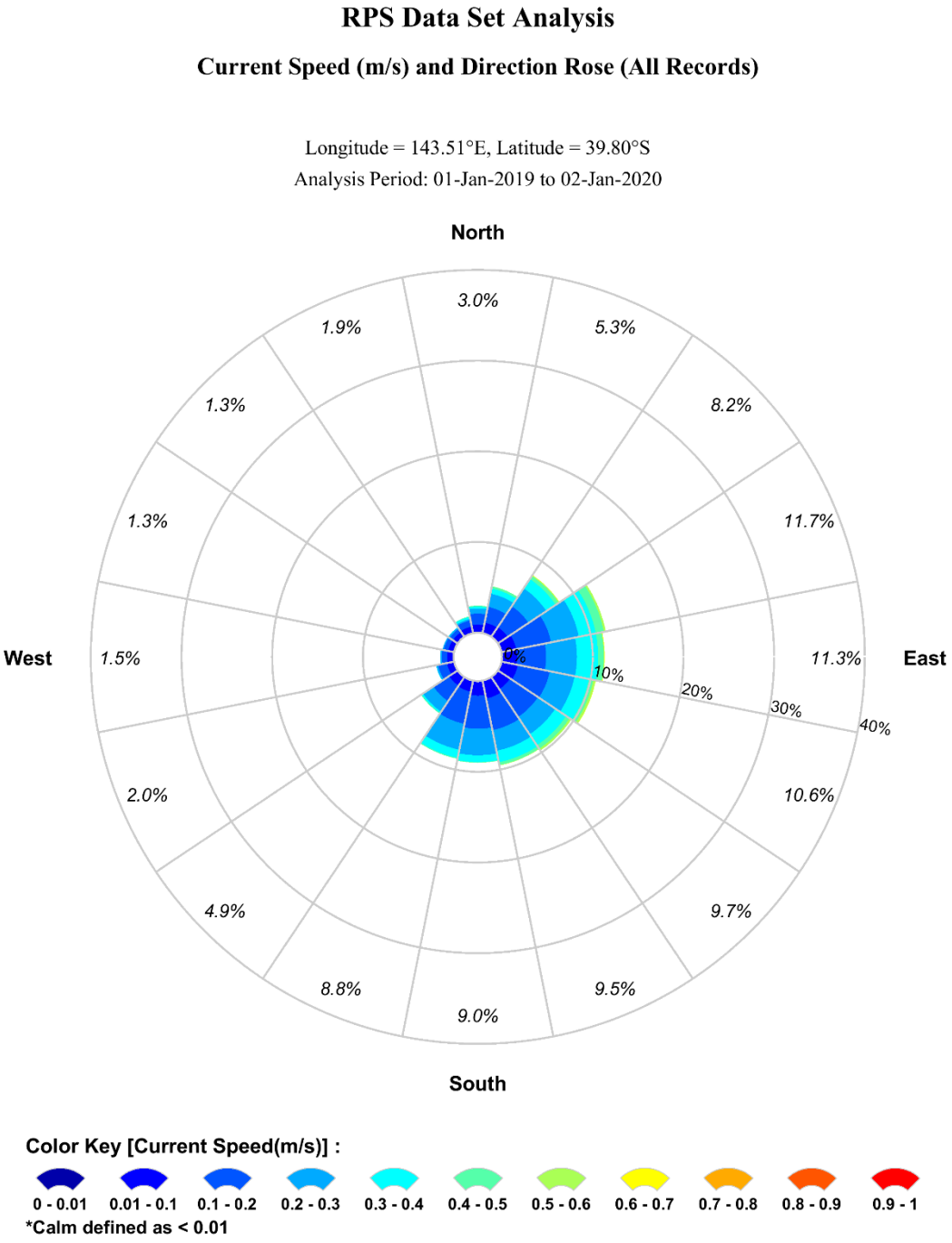


Figure 3.8 Total surface current rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

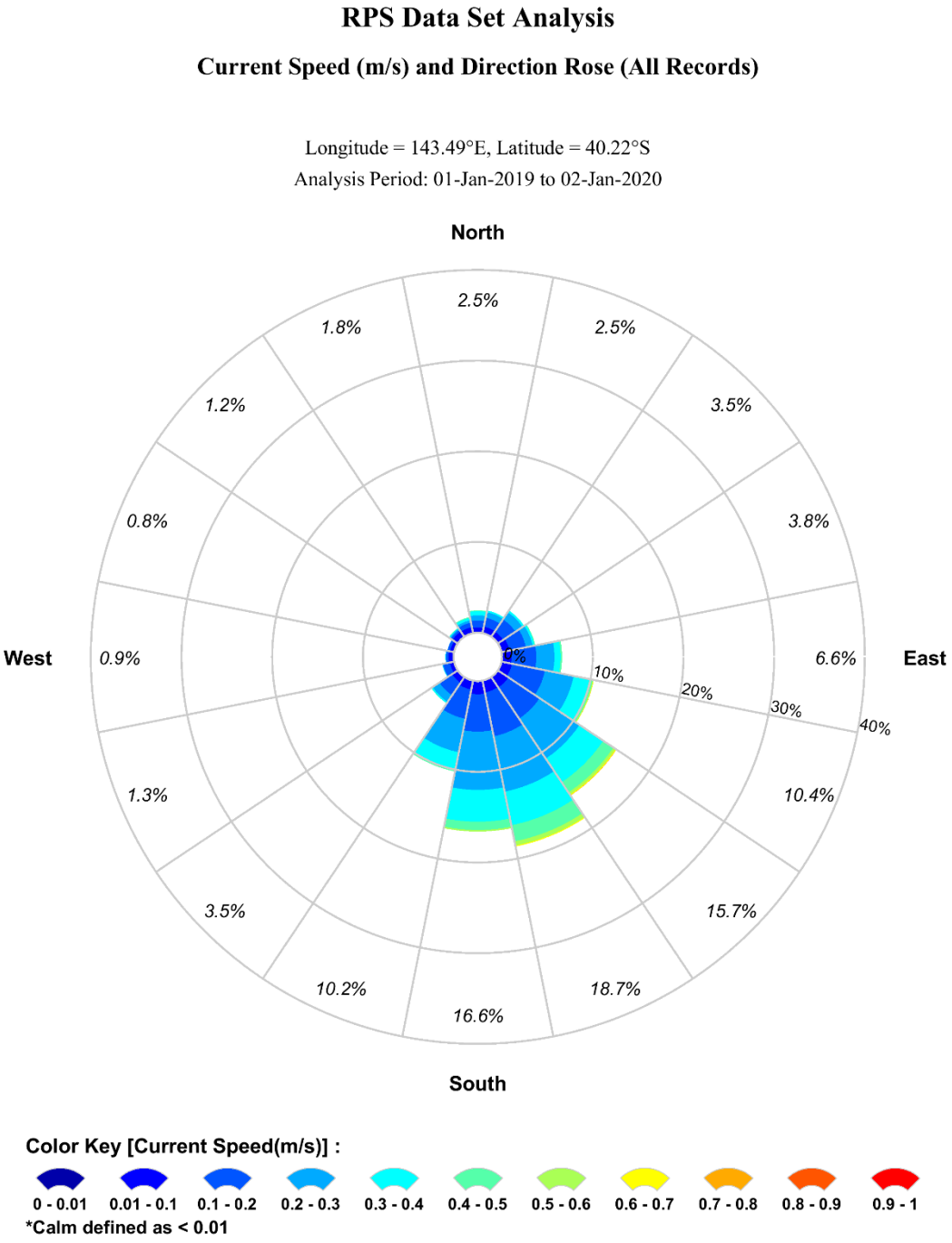


Figure 3.9 Total surface current rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

4 WIND DATA

To account for the influence of the wind on the hydrocarbons floating on the surface, wind data from 2010 to 2019 (inclusive) was sourced from the National Centre for Environmental Prediction (NCEP) Climate Forecast System Reanalysis dataset (CFSR; see Saha et al., 2010). The CFSR wind model includes observations from many data sources: surface observations, upper-atmosphere air balloon observations, aircraft observations and satellite observations. The model is capable of accurately representing the interaction between the earth's oceans, land and atmosphere. The gridded wind data output is available at a horizontal resolution of 0.25° (~33 km) and a temporal resolution of 1 hour.

Figure 4.1 is a screenshot illustrating the spatial resolution of the CFSR modelled wind data.

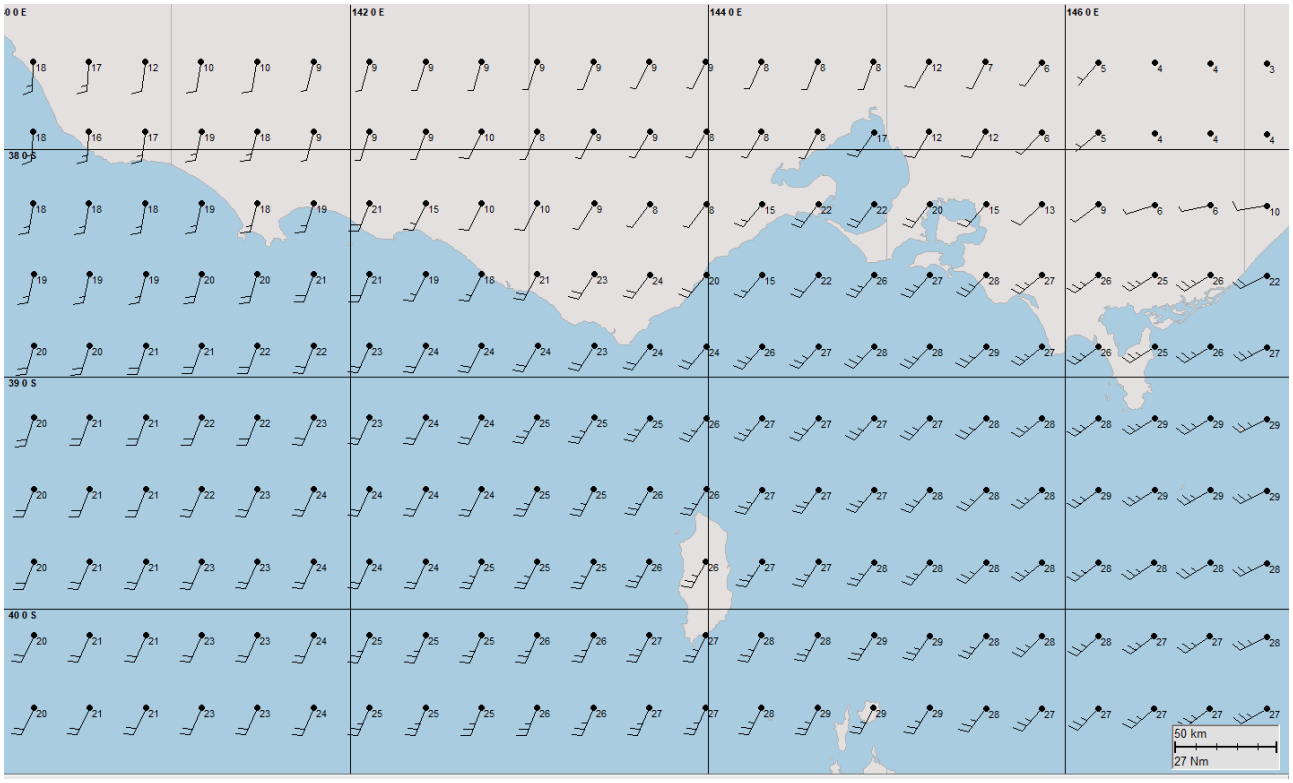


Figure 4.1 Spatial resolution of the CFSR modelled wind data used as input into the oil spill model.

Figure 4.2 to Figure 4.4 shows the monthly wind rose distributions derived from the CFSR nodes closest to the release locations, while Figure 4.5 to Figure 4.7 illustrate the total current rose distribution.

Note that the atmospheric convention for defining wind direction, that is, the direction the wind blows from, is used to reference wind direction throughout this report. Each branch of the rose represents wind coming from that direction, with north to the top of the diagram. Sixteen directions are used. The branches are divided into segments of different colour, which represent wind speed ranges from that direction. Speed ranges of 3 knots are predominantly used in these wind roses. The length of each segment within a branch is proportional to the frequency of winds blowing within the corresponding range of speeds from that direction.

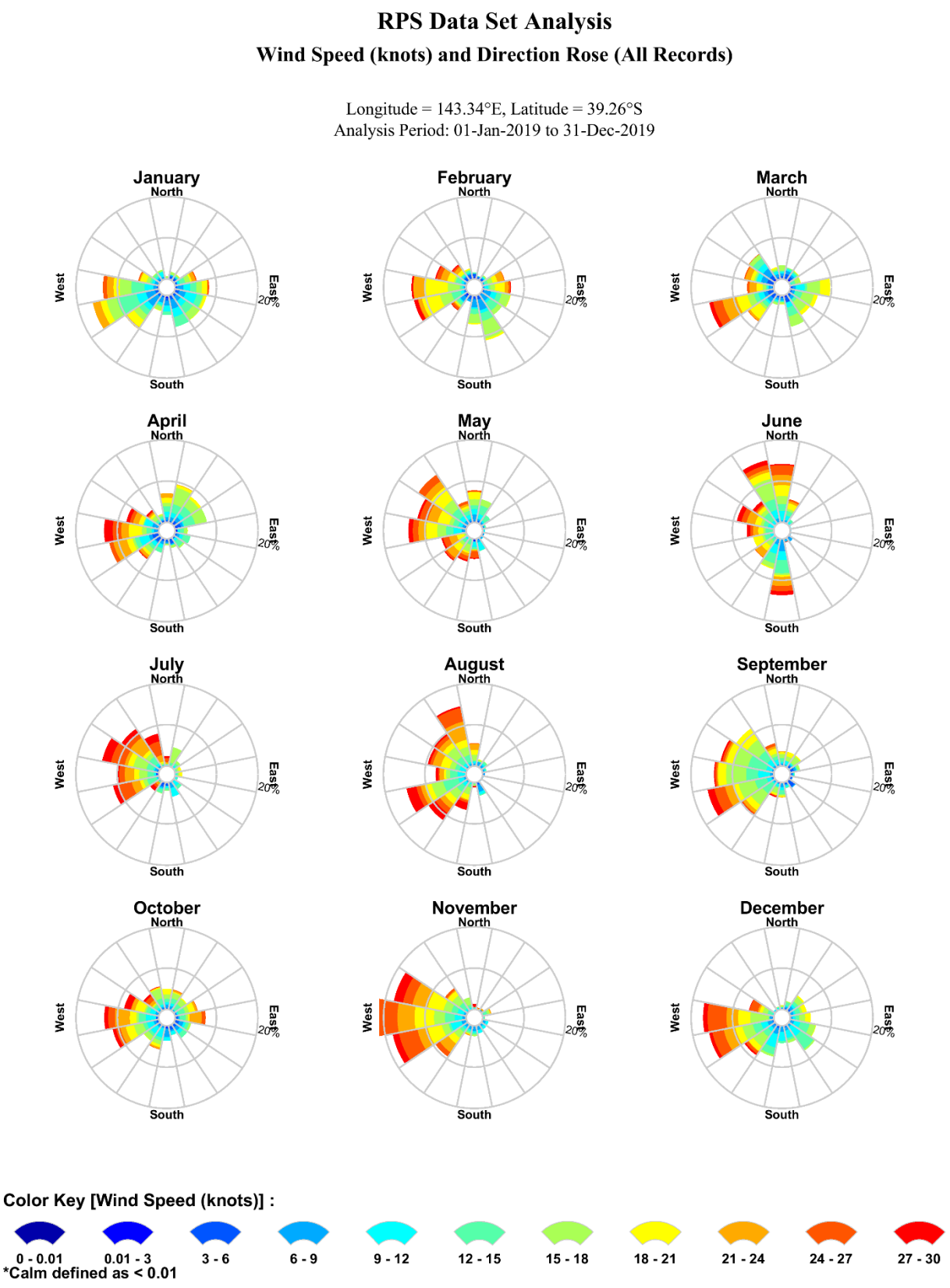


Figure 4.2 Monthly wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

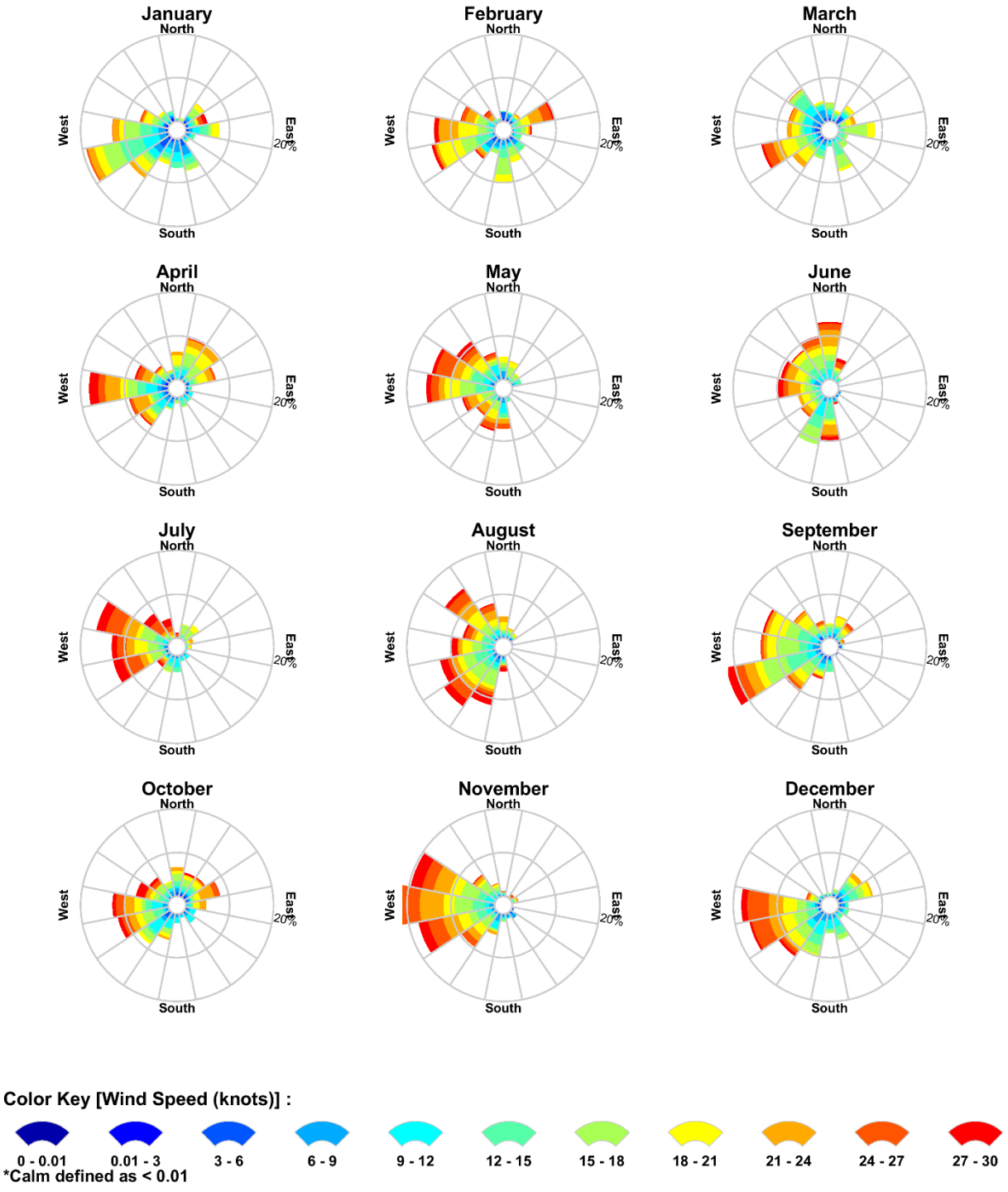


Figure 4.3 Monthly wind rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

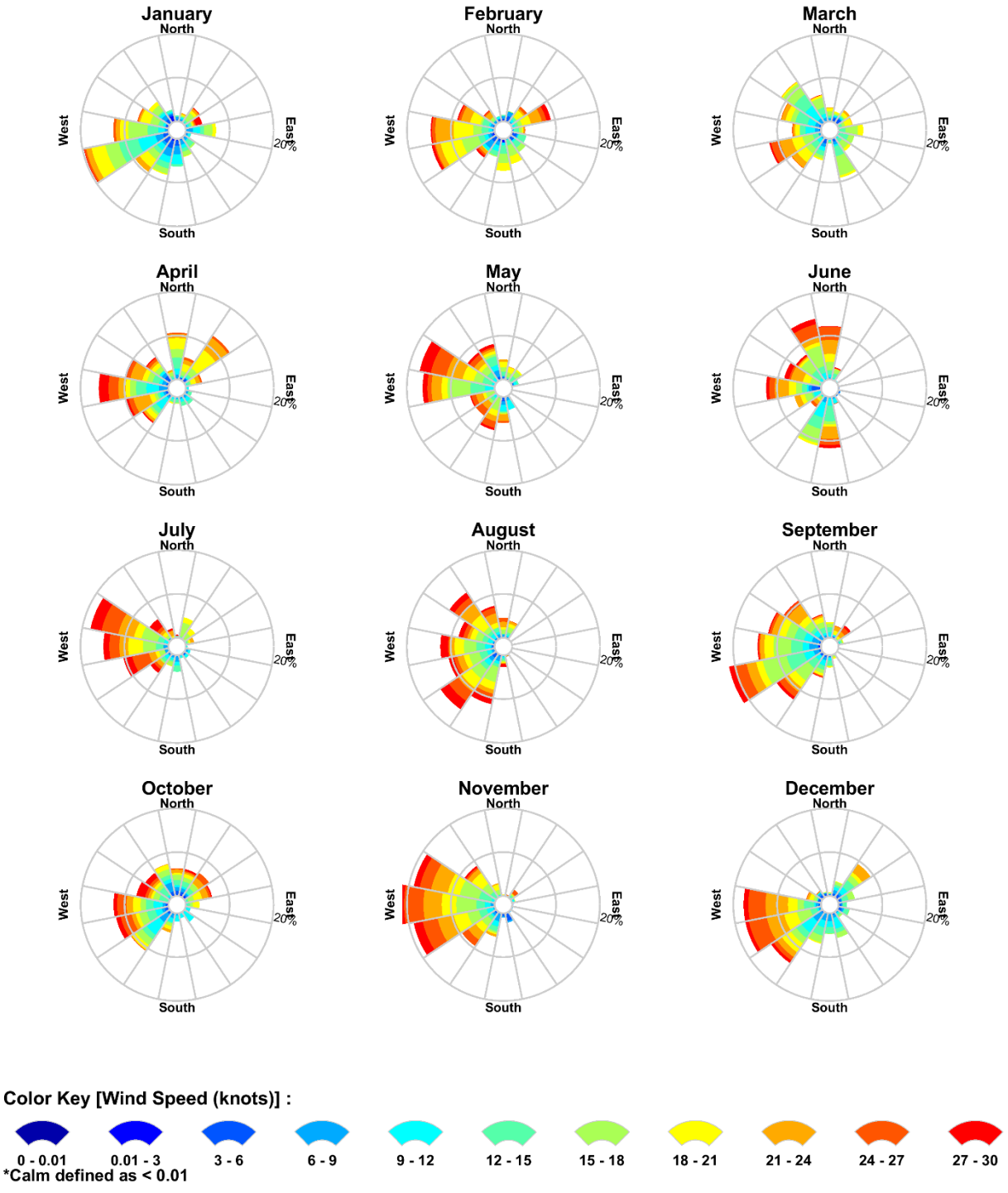


Figure 4.4 Monthly wind rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

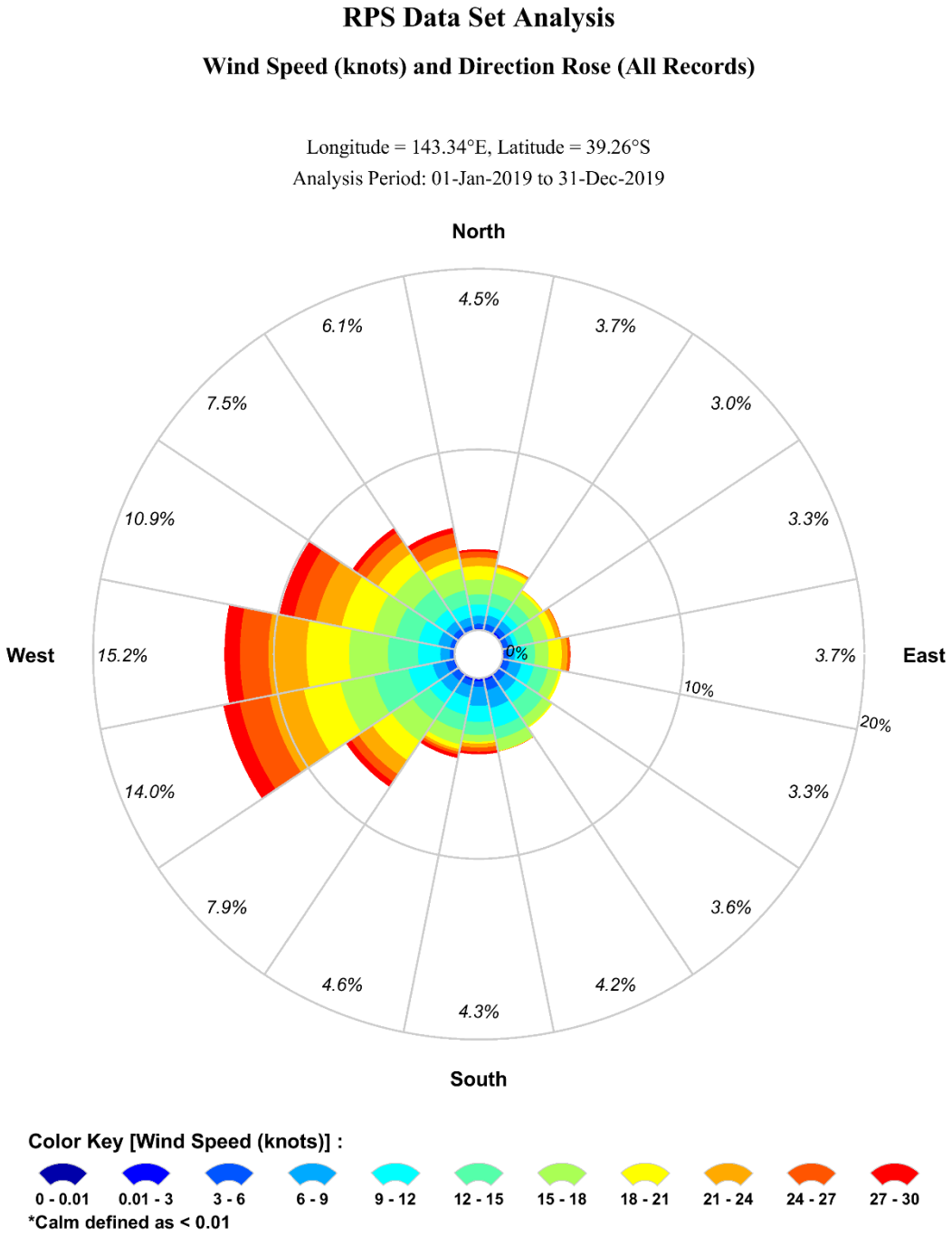


Figure 4.5 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

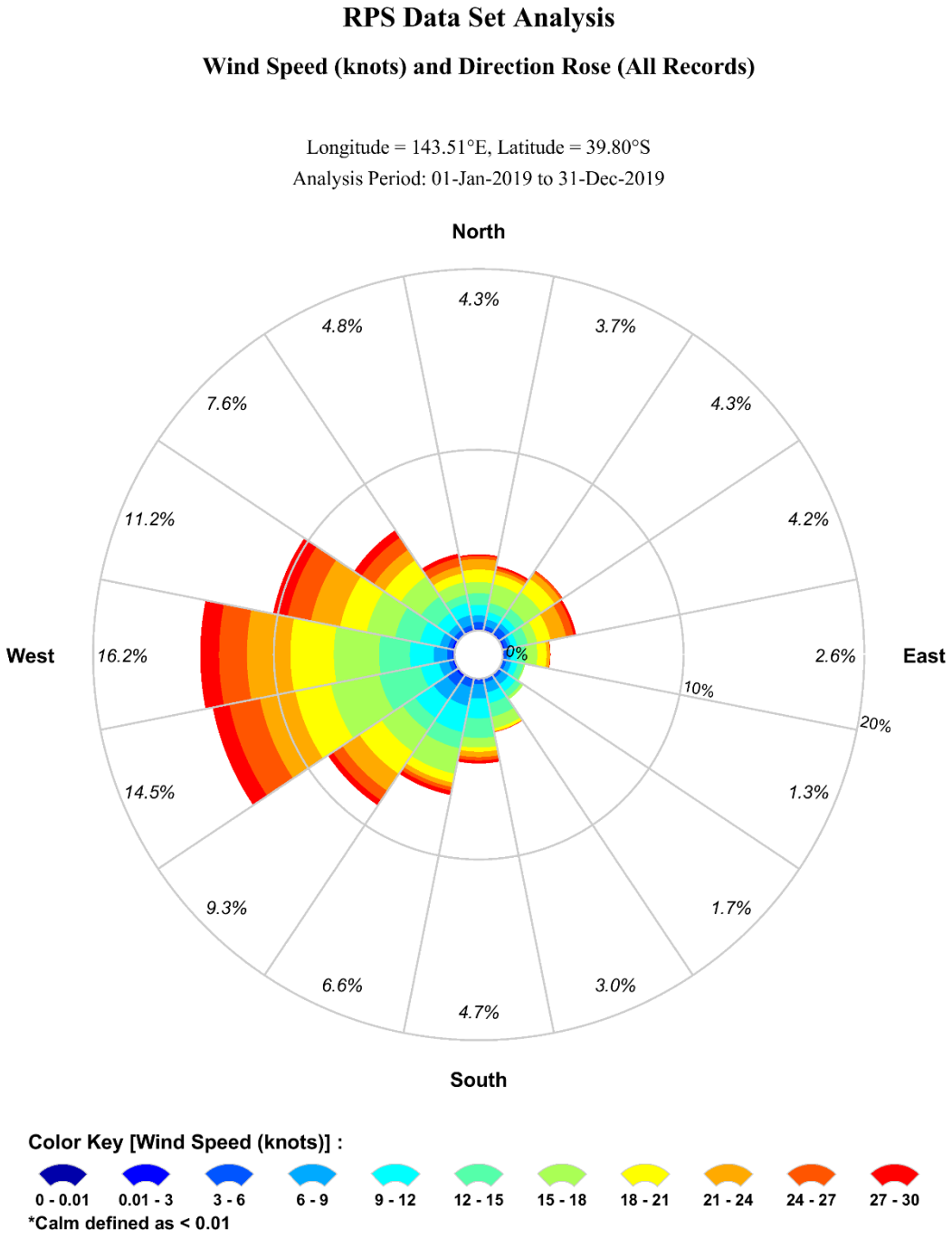


Figure 4.6 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

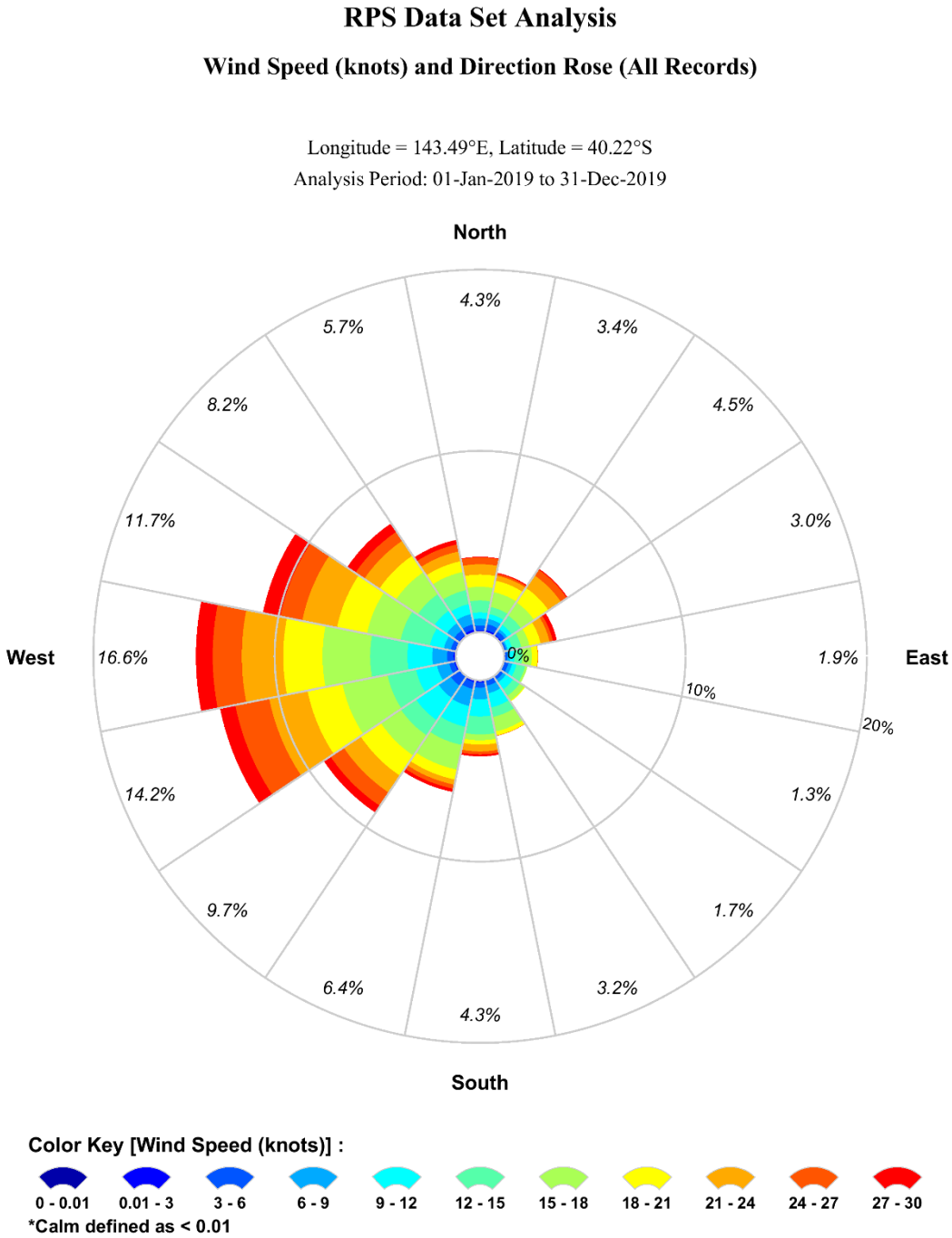


Figure 4.7 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

5 WATER TEMPERATURE AND SALINITY

Monthly water temperature and salinity data was obtained from the World Ocean Atlas 2013 database produced by the National Oceanographic Data Centre (National Oceanic and Atmospheric Administration) and its co-located World Data Center for Oceanography (Levitus et al. 2013). The data is used as input into oil spill model.

The monthly mean sea surface temperature and salinity values in the 0-5 m depth layer are presented in Table 5-1. The monthly average sea surface temperatures ranged between 12.8°C (September, release location 3) and 18.4°C (March, release location 2). The monthly average salinity values remain relatively consistent ranging between 35.1 psu and 35.6 psu.

Figure 5.1 shows the monthly water temperature and salinity profiles adjacent to the release locations.

Table 5-1 Monthly average sea surface temperature and salinity adjacent the release locations.

Release Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Temperature (°C)	17.6	17.4	18.1	16.5	15.8	15.1	14.8	13.4	13.0	14.4	14.3	15.7
	Salinity (psu)	35.3	35.1	35.5	35.3	35.3	35.2	35.6	35.3	35.4	35.4	35.4	35.4
2	Temperature (°C)	17.4	17.6	18.4	16.5	15.2	15.1	14.8	13.5	13.3	14.1	14.4	15.7
	Salinity (psu)	35.3	35.2	35.6	35.3	35.3	35.3	35.6	35.3	35.4	35.4	35.4	35.4
3	Temperature (°C)	16.5	17.0	17.6	15.8	14.4	14.0	14.1	13.0	12.8	13.3	13.9	15.3
	Salinity (psu)	35.2	35.1	35.4	35.2	35.2	35.2	35.4	35.2	35.3	35.3	35.3	35.3

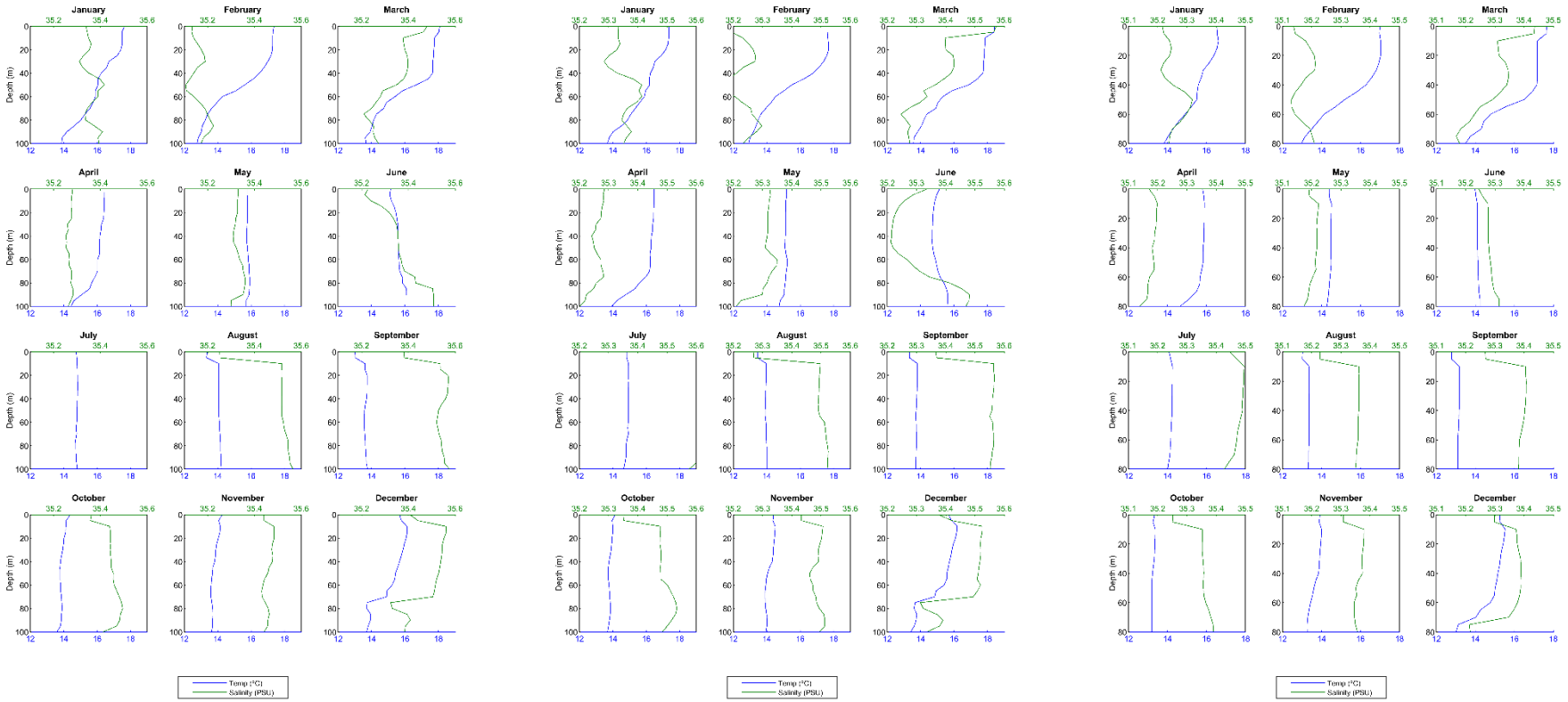


Figure 5.1 Monthly water temperature (blue line) and salinity (green line) profiles for Location 1 (left), Location 2 (middle) and Location 3 (right). Depth of 0 m is the water surface.

6 OIL SPILL MODEL - SIMAP

The spill modelling was carried out using a purpose-developed oil spill trajectory and fates model, SIMAP (Spill Impact Model Application Package). This model is designed to simulate the transport and weathering processes that affect the outcomes of hydrocarbon spills to the sea, accounting for the specific oil type, spill scenario, and prevailing wind and current circulation patterns.

SIMAP is the evolution of the United States Environmental Protection Agency (US EPA) Natural Resource Damage Assessment model (French & Rines, 1997; French et al., 1999) and is designed to simulate the fate and effects of spilled oils and fuels for both the surface slick and the three-dimensional plume that is generated in the water column. SIMAP includes algorithms to account for both physical transport and weathering processes. The latter are important for accounting for the partitioning of the spilled mass over time between the water surface (surface slick), water column (entrained oil and dissolved compounds), atmosphere (evaporated compounds) and land (stranded oil). The model also accounts for the interaction between weathering and transport processes.

The physical algorithms calculate transport and spreading by physical forces, including surface tension, gravity and wind and current forces for both surface slicks and oil within the water column. The fates algorithms calculate all the weathering processes known to be important for oil spilled to marine waters. These include droplet and slick formation, entrainment by wave action, emulsification, dissolution of soluble components, sedimentation, evaporation, bacterial and photo-chemical decay and shoreline interactions. These algorithms account for the specific oil type being considered.

Entrainment is the physical process where globules of oil are transported from the sea surface into the water column by wind and wave-induced turbulence or be generated subsea by a pressurised discharge at depth. It has been observed that entrained oil is broken into droplets of varying sizes. Small droplets spread and diffuse into the water column, while larger ones rise rapidly back to the surface (Delvigne & Sweeney, 1988; Delvigne, 1991).

Dissolution is the process by which soluble hydrocarbons enter the water from a surface slick or from entrained droplets. The lower molecular weight hydrocarbons tend to be both more volatile and more soluble than those of higher molecular weight.

The formation of water-in-oil emulsions, or mousse, which is termed ‘emulsification’, depends on oil composition and sea state. Emulsified oil can contain as much as 80% water in the form of micrometre-sized droplets dispersed within a continuous phase of oil (Daling & Brandvik, 1991; Bobra, 1991; Daling et al., 1997; Fingas, 1995).

Evaporation can result in the transfer of large proportions of spilled oil from the sea surface to the atmosphere, depending on the type of oil (Gundlach & Boehm, 1981).

Evaporation rates vary over space and time dependent on the prevailing sea temperatures, wind and current speeds, the surface area of the slick and entrained droplets that are exposed to the atmosphere as well as the state of weathering of the oil. Evaporation rates will decrease over time, depending on the calculated rate of loss of the more volatile compounds. By this process, the model can differentiate between the fates of different oil types.

Decay (degradation) of hydrocarbons may occur as the result of photolysis, which is a chemical process energised by ultraviolet light from the sun, and by biological breakdown, termed biodegradation. Many types of marine organisms ingest, metabolise and utilise oil as a carbon source, producing carbon dioxide and water as by-products.

Entrainment, dissolution and emulsification rates are correlated to wave energy, which is accounted for by estimating wave heights from the sustained wind speed, direction and fetch (i.e. distance downwind from land barriers) at different locations in the domain. Dissolution rates are dependent upon the proportion of soluble, short-chained hydrocarbon compounds, and the surface area at the oil/water interface of slicks. Dissolution rates are also strongly affected by the level of turbulence. For example, dissolution rates will be relatively high at the site of the release for a deep-sea discharge at high pressure.

The SIMAP weathering algorithms include terms to represent these dynamic processes. Technical descriptions of the algorithms used in SIMAP and validations against real spill events are provided in French (1998), French et al. (1999) and French-McCay (2004).

Input specifications for oil types include density, viscosity, pour-point, distillation curve (volume of oil distilled off versus temperature) and the aromatic/aliphatic component ratios within given boiling point ranges. The model calculates a distribution of the oil by mass into the following components:

- Surface-bound or floating oil;
- Entrained oil (non-dissolved oil droplets that are physically entrained by wave action);
- Dissolved hydrocarbons (principally the aromatic and short-chained aliphatic compounds);
- Evaporated hydrocarbons;
- Sedimented hydrocarbons; and
- Decayed hydrocarbons.

7 HYDROCARBON PROPERTIES

Table 7.1 and Table 7.2 summarise the physical properties and boiling point ranges for the MDO, respectively.

The MDO has a density of 829.1 kg/m^3 (API of 37.6) and a low pour point of -14°C. The low viscosity (4 cP) indicates that this oil will spread quickly when released and will form a thin to low thickness film on the sea surface, increasing the rate of evaporation.

Generally, about 6.0% of the MDO mass should evaporate within the first 12 hours (Boiling point (BP) < 180°C); a further 34.6% should evaporate within the first 24 hours (180°C < BP < 265°C); and an additional 54.4% should evaporate over several days (265°C < BP < 380°C). Approximately 5% (by mass) of MDO will not evaporate, though will decay slowly over time.

The oil is categorised as a group II oil (light-persistent) according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges.

It is important to note that some heavy components contained within the MDO will have a strong tendency to physically entrain into the upper water column in the presence of moderate winds (i.e. >12 knots) and breaking waves but can re-float to the surface if these energies abate.

Table 7.1 Physical properties for the marine diesel oil.

Characteristic	Marine Diesel Oil (MDO)
Density (kg/m^3)	829.1 (at 25 °C)
API	37.6
Dynamic viscosity (cP)	4.0 (at 25 °C)
Hydrocarbon property category	Group II
Hydrocarbon property classification	Light persistent oil

Table 7.2 Boiling point ranges for marine diesel oil.

Characteristics	Non-Persistent			Persistent
	Volatile (%)	*Semi-volatile (%)*	*Low-volatility (%)*	*Residual (%)*
Boiling point (°C)	*<180*	*180-265*	*265-380*	*>380*
Marine diesel oil (MDO)	6.0	34.6	54.4	5.0

8 THRESHOLDS

The thresholds and their relationship to exposure for the sea surface, shoreline, and water column (entrained and dissolved hydrocarbons) are presented in Sections 8.1 to 8.3. Supporting justifications of the adopted thresholds applied during the study and additional context relating to the area of influence are also provided. It is important to note that the thresholds herein are based on NOPSEMA (2019).

8.1 Floating Oil Exposure

The modelling results can be presented to any levels; therefore, thresholds have been specified (based on scientific literature) to record floating oil exposure to the sea-surface at meaningful levels only, described in the following paragraphs.

The low threshold to assess the potential for floating oil exposure, was 1 g/m^2, which equates approximately to an average thickness of 1 µm, referred to as visible oil. Oil of this thickness is described as rainbow sheen in appearance, according to the Bonn Agreement Oil Appearance Code (Bonn Agreement, 2009; AMSA, 2014). Table 8.1 provides a description of the appearance in relation to exposure zone thresholds used to classify the zones of floating oil exposure. Figure 8.1 shows photographs highlighting the difference in appearance between a rainbow sheen and metallic sheen. The low threshold is considered below levels which would cause environmental harm and it is more indicative of the areas perceived to be affected due to its visibility on the sea surface and potential to trigger temporary closures of areas (i.e., fishing grounds) as a precautionary measure.

Ecological impact has been estimated to occur at 10 g/m^2, which equates to a film thickness of approximately 10 µm or 0.01 mm (French et al. 1996; French-McCay 2009) as this level of fresh oiling has been observed to mortally impact some birds through adhesion of oil to their feathers, exposing them to secondary effects such as hypothermia. The appearance of oil at this average thickness has been described as a metallic sheen (Bonn Agreement, 2009). Concentrations above 10 g/m^2 is also considered the lower actionable threshold, where oil may be thick enough for containment and recovery as well as dispersant treatment (AMSA, 2015).

Oil concentrations on the sea surface of 25 g/m^2 (or greater), would be harmful for all birds that have landed in an oil film due to potential contamination of their feathers, with secondary effects such as loss of temperature regulation and ingestion of oil through preening (Scholten et al., 1996; Koops et al., 2004). The appearance of oil at this thickness is also described as metallic sheen (Bonn Agreement, 2009). For this study the high exposure threshold was set to 50 g/m^2 and above based on NOPSEMA (2019). This threshold can also be used to inform response planning.

Table 8.2 defines the thresholds used to classify the zones of floating oil exposure reported herein.

Table 8.1 The Bonn Agreement Oil Appearance Code.

Code	Description Appearance	Layer Thickness Interval (g/m^2 or µm)	Litres per km^2
1	Sheen (silvery/grey)	0.04 – 0.30	40 – 300
2	Rainbow	0.30 – 5.0	300 – 5,000
3	Metallic	5.0 – 50	5,000 – 50,000
4	Discontinuous True Oil Colour	50 – 200	50,000 – 200,000
5	Continuous True Oil Colour	≥ 200	≥ 200,000

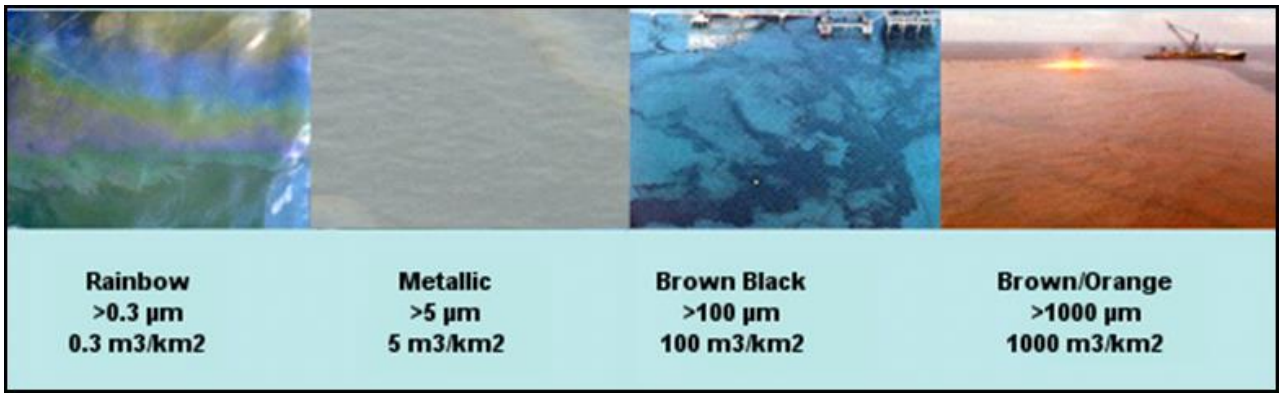


Figure 8.1 Photographs showing the difference between oil colour and thickness on the sea surface (source: adapted from Oil Spill Solutions, 2015).

Table 8.2 Floating oil exposure thresholds used in this report (in alignment with NOPSEMA (2019)).

Threshold level	Floating oil (g/m^2)	Description
Low	1	Approximates range of socio-economic effects and establishes planning area for scientific monitoring
Moderate	10	Approximates lower limit for harmful exposures to birds and marine mammals
High	50*	Approximates surface oil slick and informs response planning

* 50 g/m^2 also used to define the threshold for actionable floating oil.

8.2 Shoreline Accumulation

There are many different types of shorelines, ranging from cliffs, rocky beaches, sandy beaches, mud flats and mangroves, and each of these influences the volume of oil that can remain stranded ashore and its thickness before the shoreline saturation point occurs. For instance, a sandy beach may allow oil to percolate through the sand, thus increasing its ability to hold more oil ashore over tidal cycles and various wave actions than an equivalent area of water; hence oil can increase in thickness onshore over time. A sandy beach shoreline was assumed as the default shoreline type for the modelling in this study, as it allows for the highest carrying capacity of oil (of the available open/exposed shoreline types). Hence the results are considered conservative (i.e., worst-case) given that a large part of the shoreline in the study area (especially the western part of the Joseph Bonaparte Gulf) is characterised by exposed rocky shorelines, with southern parts characterised by tidal mudflats and mangroves and eastern shorelines containing more sandy beaches.

Previous risk assessment studies, French-McCay et al. (2005a; 2005b) used a threshold of 10 g/m^2 to assess the potential for shoreline accumulation. This is a conservative threshold used to define regions of socio-economic impact, such as triggering temporary closures of adjoining fisheries or the need for shore clean-up on beaches or man-made features/amenities (breakwaters, jetties, marinas, etc.). It would equate to approximately 2 teaspoons of hydrocarbon per square meter of shoreline accumulation. The appearance is described as a stain/film. On that basis, the 10 g/m^2 shoreline accumulation threshold has been selected to define the zone of potential “low shoreline accumulation”.

French et al. (1996) and French-McCay (2009) define a shoreline oil accumulation threshold of 100 g/m^2, or above, would potentially harm shorebirds and wildlife (fur-bearing aquatic mammals and marine reptiles on or along the shore) based on studies for sub-lethal and lethal impacts. This threshold has been used in previous environmental risk assessment studies (see French-McCay, 2003; French-McCay et al., 2004, French-McCay et al., 2011; 2012; NOAA, 2013). Additionally, a shoreline concentration of 100 g/m^2, or above, is the minimum concentration that the oil can be effectively cleaned according to AMSA (2015). This threshold equates to approximately ½ a cup of oil per square meter of shoreline accumulation. The

appearance is described as a thin oil coat. Therefore, 100 g/m^2 has been selected to define the zone of potential “moderate shoreline accumulation”.

Observations by Lin & Mendelssohn (1996) demonstrated that loadings of more than 1,000 g/m^2 of hydrocarbon during the growing season would be required to impact marsh plants significantly. Similar thresholds have been found in studies assessing hydrocarbon impacts on mangroves (Grant et al., 1993; Suprayogi & Murray, 1999). This loading equates to approximately 1 litre of hydrocarbon per square meter of shoreline accumulation and the appearance is described as a hydrocarbon cover. A loading of 1,000 g/m^2 has been selected to define the zone of potential “high shoreline accumulation”.

These shoreline accumulation thresholds derived from extensive literature review (outlined in Table 8.3) align with the threshold values for oil spill modelling specified in NOPSEMA (2019).

Table 8.3 Thresholds used to assess shoreline accumulation.

Threshold level	Shoreline loading (g/m^2)	Description
Low (socioeconomic/sublethal)	10	Predicts potential for some socio-economic impact
Moderate	100*	Loading predicts area likely to require clean-up effort
High	1,000	Loading predicts area likely to require intensive clean-up effort

* 100 g/m^2 also used to define the threshold for actionable shoreline oil.

8.3 In-water Exposure

Oil is a mixture of thousands of hydrocarbons of varying physical, chemical, and toxicological characteristics, and therefore, demonstrate varying fates and impacts on organisms. As such, for in-water exposure, the SIMAP model provides separate outputs for dissolved and entrained hydrocarbons from oil droplets. The consequences of exposure to dissolved and entrained components will differ because they have different modes and magnitudes of effect.

Entrained hydrocarbon concentrations were calculated based on oil droplets that are suspended in the water column, though not dissolved. The composition of this oil would vary with the state of weathering (oil age) and may contain soluble hydrocarbons when the oil is fresh. Calculations for dissolved hydrocarbons specifically calculates oil components which are dissolved in water, which are known to be the primary source of toxicity exerted by oil.

A complicating factor that should be considered when assessing the consequence of dissolved and entrained oil distributions is that there will be some areas where both physically entrained oil droplets and dissolved hydrocarbons co-exist. Higher concentrations of each will tend to occur close to the source where sea conditions can force mixing of relatively unweathered oil into the water column, resulting in more rapid dissolution of soluble compounds.

8.3.1 Dissolved Hydrocarbons

Laboratory studies have shown that dissolved hydrocarbons exert most of the toxic effects of oil on aquatic biota (Carls et al., 2008; Nordtug et al., 2011; Redman, 2015). The mode of action is a narcotic effect, which is positively related to the concentration of soluble hydrocarbons in the body tissues of organisms (French-McCay, 2002). Dissolved hydrocarbons are taken up by organisms directly from the water column by absorption through external surfaces and gills, as well as through the digestive tract. Thus, soluble hydrocarbons are termed “bioavailable”.

Hydrocarbon compounds vary in water-solubility and the toxicity exerted by individual compounds is inversely related to solubility, however bioavailability will be modified by the volatility of individual compounds (Nirmalakhandan & Speece, 1988; Blum & Speece, 1990; McCarty, 1986; McCarty et al., 1992a, 1992b;

McCarty & Mackay, 1993; Verhaar et al., 1992, 1999; Swartz et al., 1995; French-McCay, 2002; McGrath and Di Toro, 2009). Of the soluble compounds, the greatest contributor to toxicity for water-column and benthic organisms are the lower-molecular-weight aromatic compounds, which are both volatile and soluble in water. Although they are not the most water-soluble hydrocarbons within most oil types, the polynuclear aromatic hydrocarbons (PAHs) containing 2-3 aromatic ring structures typically exert the largest narcotic effects because they are semi-soluble and not highly volatile, so they persist in the environment long enough for significant accumulation to occur (Anderson et al., 1974, 1987; Neff & Anderson, 1981; Malins & Hodgins, 1981; McAuliffe, 1987; NRC, 2003). The monoaromatic hydrocarbons (MAHs), including the BTEX compounds (benzene, toluene, ethylbenzene, and xylenes), and the soluble alkanes (straight chain hydrocarbons) also contribute to toxicity, but these compounds are highly volatile, so that their contribution will be low when oil is exposed to evaporation and higher when oil is discharged at depth where volatilisation does not occur (French-McCay, 2002).

French-McCay (2002) reviewed available toxicity data, where marine biota was exposed to dissolved hydrocarbons prepared from oil mixtures, finding that 95% of species and life stages exhibited 50% population mortality (LC_{50}) between 6 and 400 ppb total PAH concentration after 96 hrs exposure, with an average of 50 ppb. Hence, concentrations lower than 6 ppb total PAH value should be protective of 97.5% of species and life stages even with exposure periods of days (at least 96 hours). Early life-history stages of fish appear to be more sensitive than older fish stages and invertebrates.

Exceedances of 10, 50 or 400 ppb over a 1 hour timestep (see Table 8.4) were applied in this study to indicate the increasing potential for sub-lethal to lethal toxic effects (or low to high), based on NOPSEMA (2019).

8.3.2 Entrained Hydrocarbons

Entrained hydrocarbons consist of oil droplets that are suspended in the water column and insoluble. Insoluble compounds in oil cannot be absorbed from the water column by aquatic organisms, therefore they are not bioavailable through absorption of compounds from the water. Exposure to these compounds would require routes of uptake other than absorption of soluble compounds. The route of exposure of organisms to whole oil alone include direct contact with tissues of organisms and uptake of oil by direct consumption, with potential for biomagnification through the food chain (NRC, 2003).

The 10 ppb threshold corresponds generally with the lowest trigger levels for chronic exposure for entrained hydrocarbons in the ANZECC & ARMCANZ (2000) water quality guidelines. Due to the requirement for relatively long exposure times (> 24 hours) for these concentrations to accumulate, they are likely to be more meaningful for juvenile fish, larvae and planktonic organisms that might be entrained (or otherwise moving) within the entrained plumes, or when entrained hydrocarbons adhere to organisms or are trapped against a shoreline for periods of several days or more.

This exposure zone is not considered to be of significant biological impact and is therefore outside the adverse exposure zone. This exposure zone represents the area contacted by the spill. This area does not define the area of influence as it is considered that the environment will not be affected by the entrained hydrocarbon at this level.

Thresholds of 10 ppb and 100 ppb were applied over a 1 hour time exposure (Table 8.4), to cover the range of thresholds outlined in ANZECC & ARMCANZ (2000) water quality guidelines and is per NOPSEMA (2019).

Table 8.4 Dissolved and entrained hydrocarbon exposure values assessed over a 1-hour time step, as per NOPSEMA (2019).

	Exposure level	In-water threshold (ppb)	Description
Dissolved hydrocarbons	Low	10	Establishes planning area for scientific monitoring based on potential for exceedance of water quality triggers
	Moderate	50	Approximates potential toxic effects, particularly sublethal effects to sensitive species
	High	400	Approximates toxic effects including lethal effects to sensitive species
Entrained hydrocarbons	Low	10	Establishes planning area for scientific monitoring based on potential for exceedance of water quality triggers
	High	100	As appropriate given oil characteristics for informing risk evaluation

8.4 Dispersion

A horizontal dispersion coefficient of 10 m^2/s was used to account for dispersive processes acting at the surface that are below the scale of resolution of the input current field, based on typical values for open waters (Okubo, 1971). Dispersion rates within the water column (applicable for entrained and dissolved plumes of hydrocarbons) were specified at 1 m^2/s, based on empirical data for the dispersion of hydrocarbon plumes (King & McAllister, 1998).

9 RECEPTORS

A range of environmental receptors and shorelines were assessed for floating oil exposure, shoreline contact and water column exposure (entrained and dissolved hydrocarbons) as part of the study (see Figure 9.1 to Figure 9.12). Receptor categories are shown in Table 9.1 which includes coastal and offshore islands grouped as shorelines. All other sensitive receptors other than submerged reefs, shoals and banks (RSB) were sourced from Australian Government Department of Agriculture, Water and the Environment (http://www.environment.gov.au/). Probabilities of exposure were separately calculated for each sensitive receptor area and have been tabulated.

Table 9.1 Summary of receptors assessed for potential oil exposure.

Receptor Category	Acronym	Hydrocarbon Exposure and Accumulation Assessment		
		Floating oil	Water Column	Shoreline
Australian Marine Park	AMP	✓	✓	×
Biologically Important Area	BIA	✓	✓	×
Conservation Park	CP	✓	✓	×
Interim Biogeographic Regionalisation for Australia bioregions	IBRA	✓	✓	×
Integrated marine and coastal regionalisation areas	IMCRA	✓	✓	×
Marine National Parks	MNP	✓	✓	×
Marine Park	MP	✓	✓	×
Marine Sanctuary	MS	✓	✓	×
National Park	NP	✓	✓	×
National Parks Act Schedule 4 park or reserve	NPS4	✓	✓	×
Nature Reserve	NR	✓	✓	×
Ramsar Sites	Ramsar	✓	✓	×
Reefs, Shoals and Banks	RSB	✓	✓	×
Key Ecological Feature	KEF	✓	✓	×
State Waters	State Waters	✓	✓	×
Shorelines	Shore	✓ (Reported as: Nearshore Waters)	✓ (Reported as: Nearshore Waters)	✓

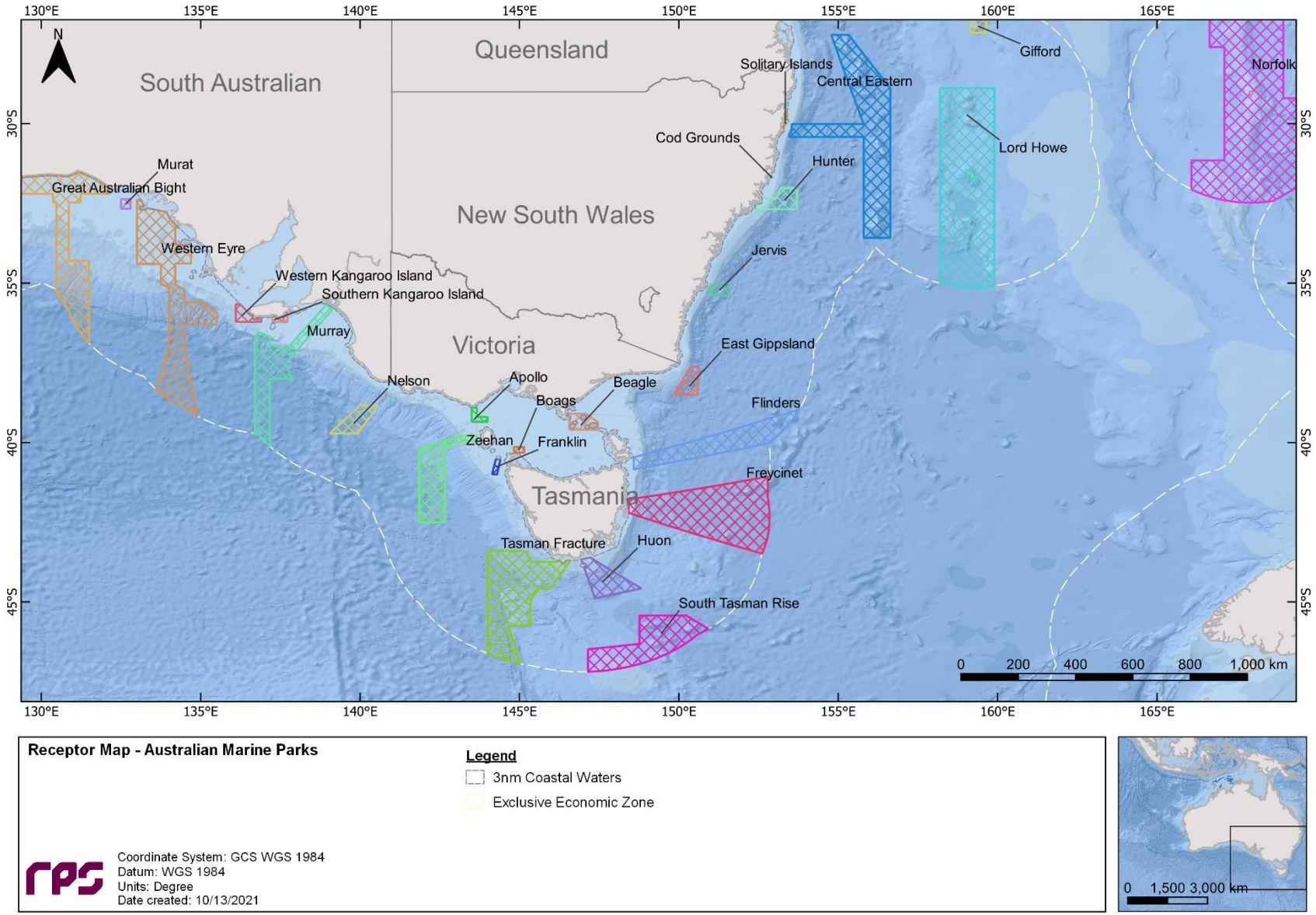


Figure 9.1 Receptor map for Australian Marine Parks (AMP).

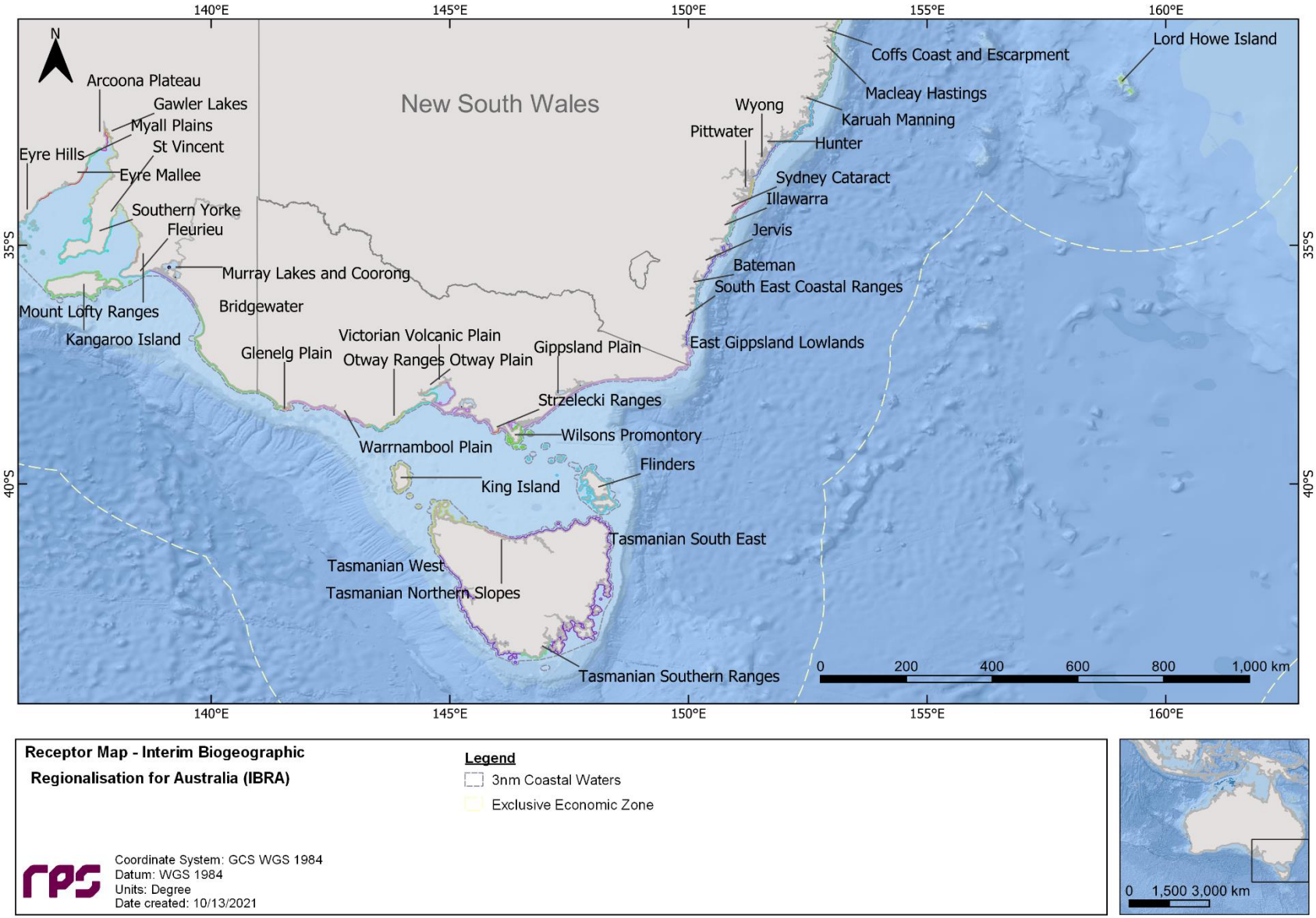


Figure 9.2 Receptor map for the Interim Biogeographic Regionalisation for Australia (IBRA) bioregions.

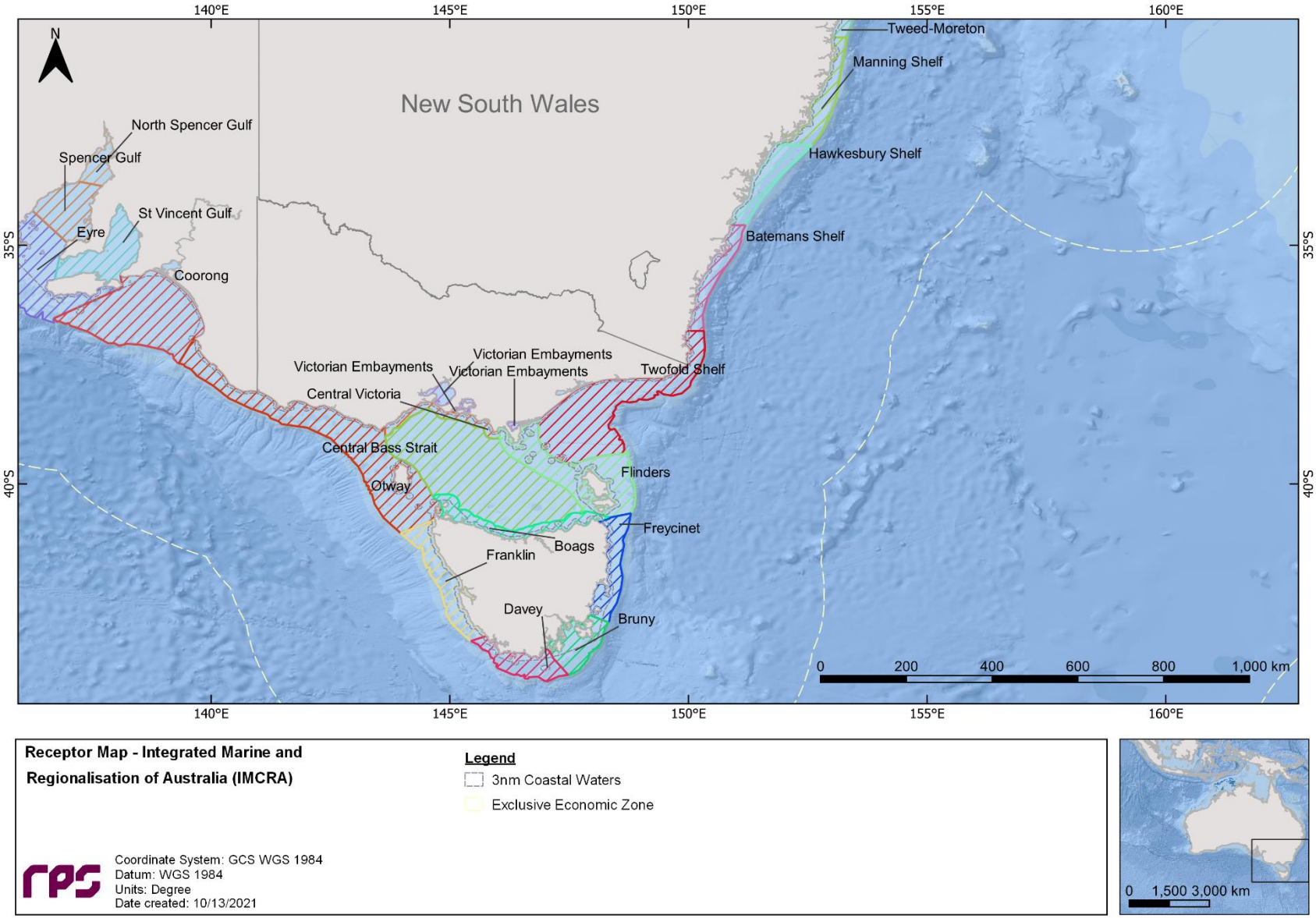


Figure 9.3 Receptor map for integrated marine and coastal regionalisation (IMCRA) areas.

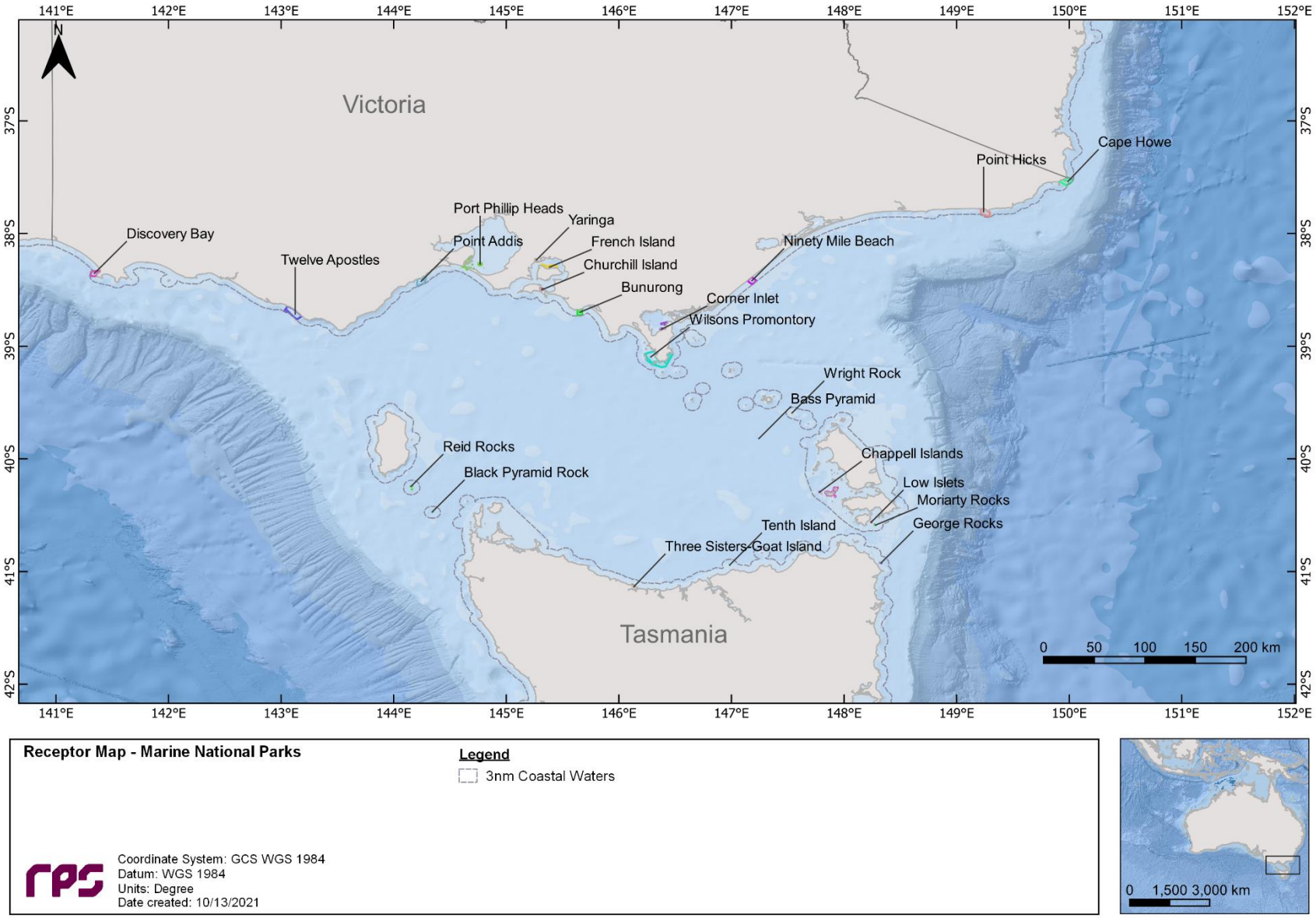


Figure 9.4 Receptor map for Marine National Parks (MNP).

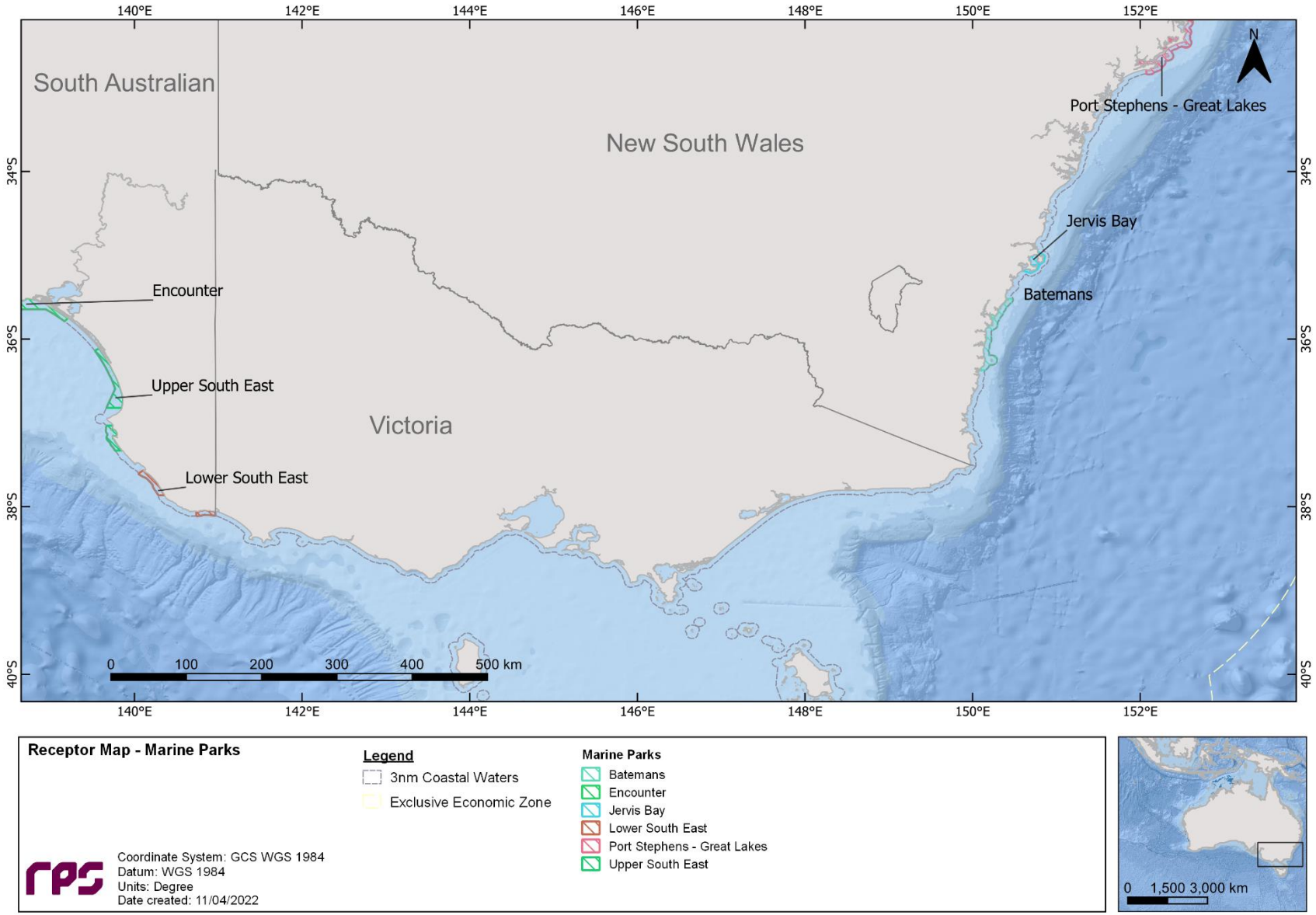


Figure 9.5 Receptor map for Marine Parks (MP).

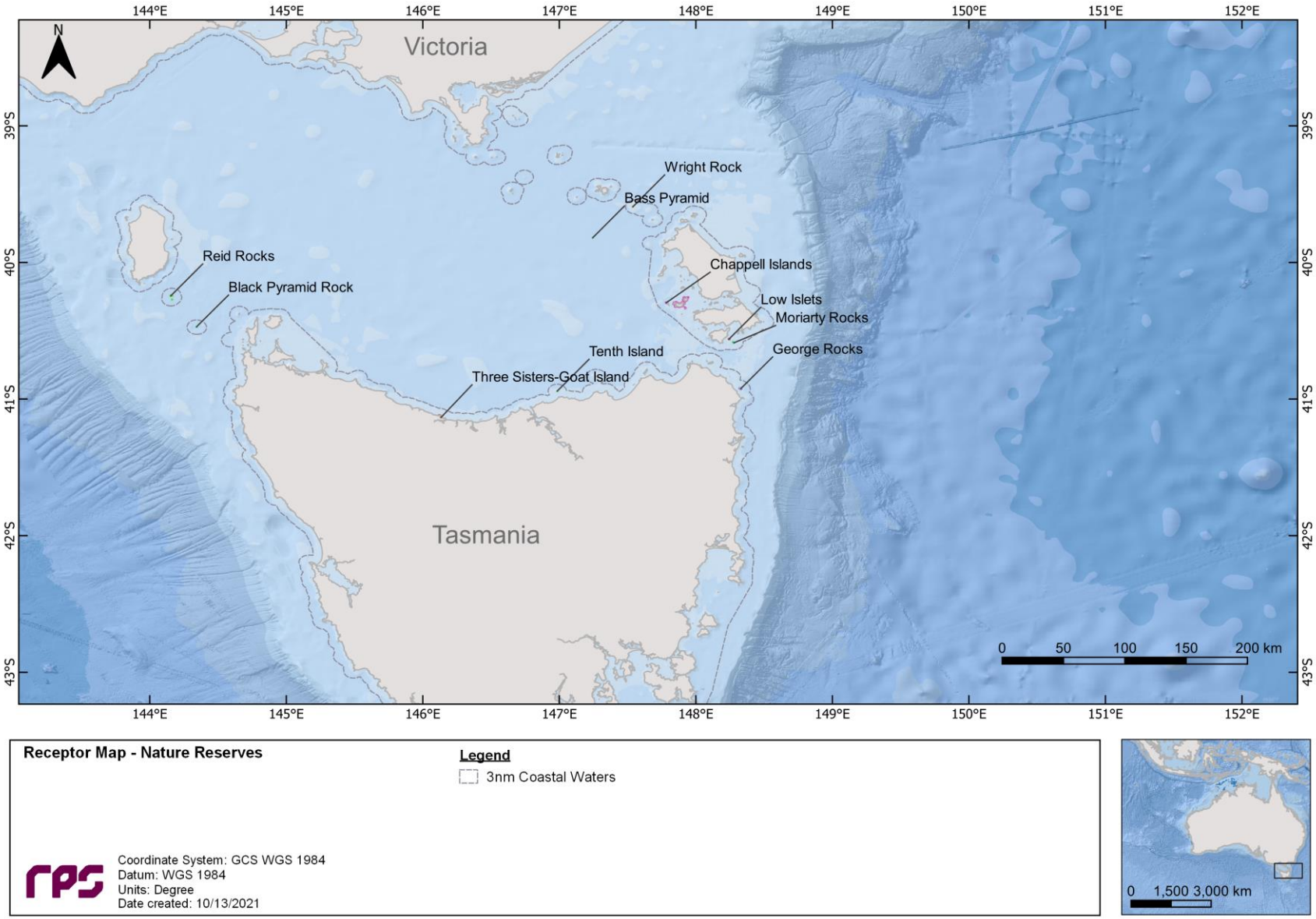


Figure 9.6 Receptor map for Nature Reserves (NR).

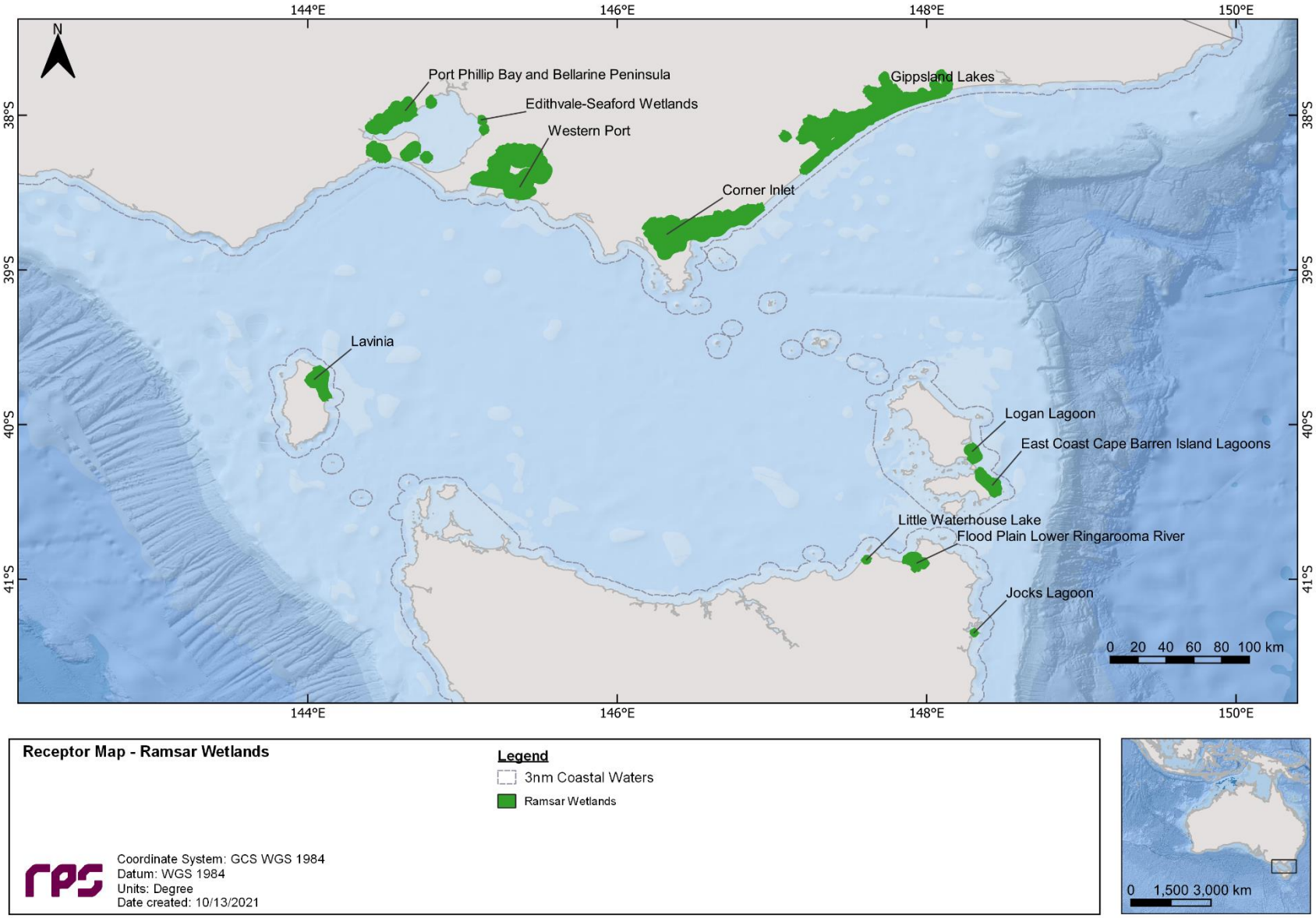


Figure 9.7 Receptor map for Ramsar Sites (Ramsar).

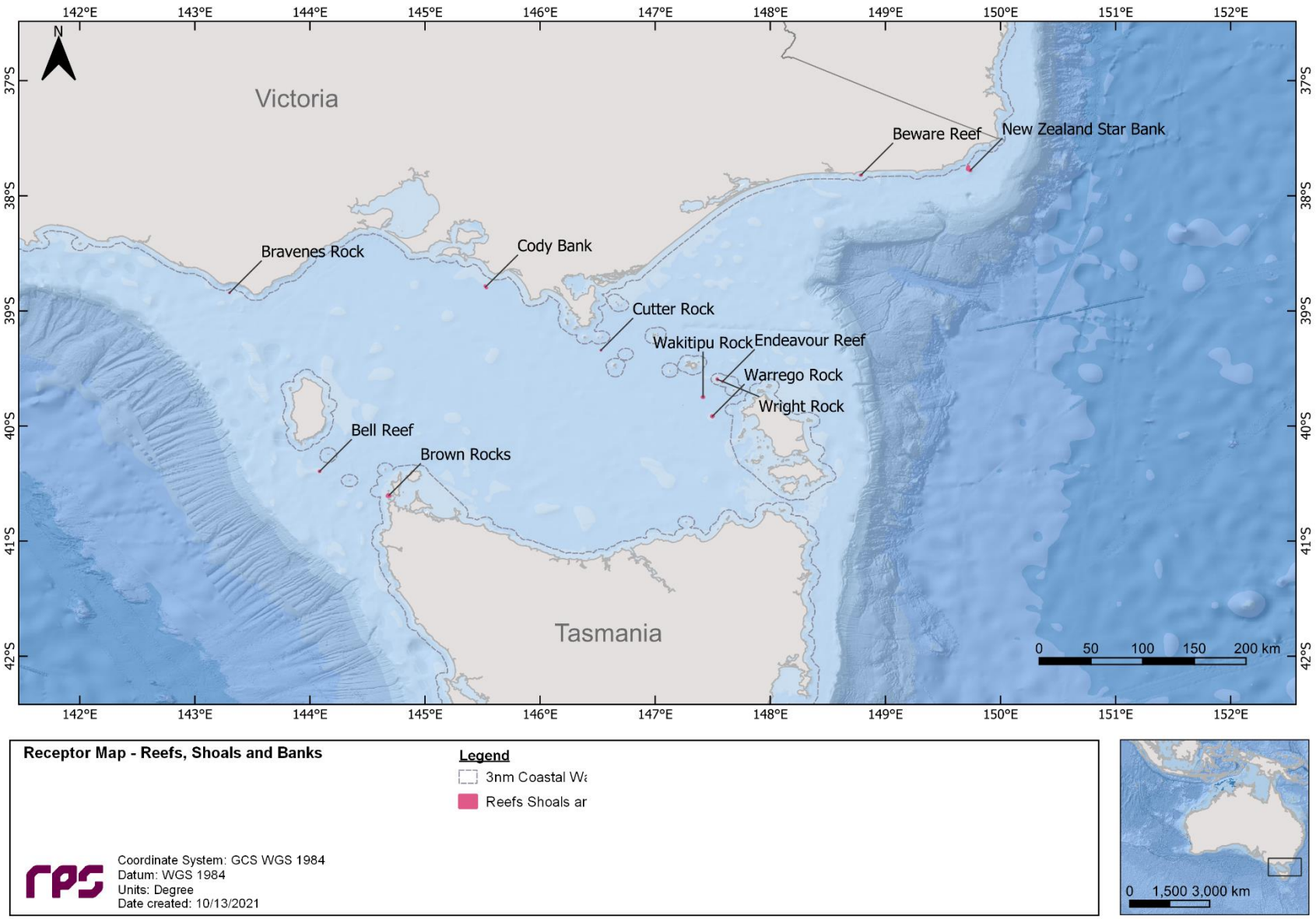


Figure 9.8 Receptor map for Reefs, Shoals and Banks (RSB).

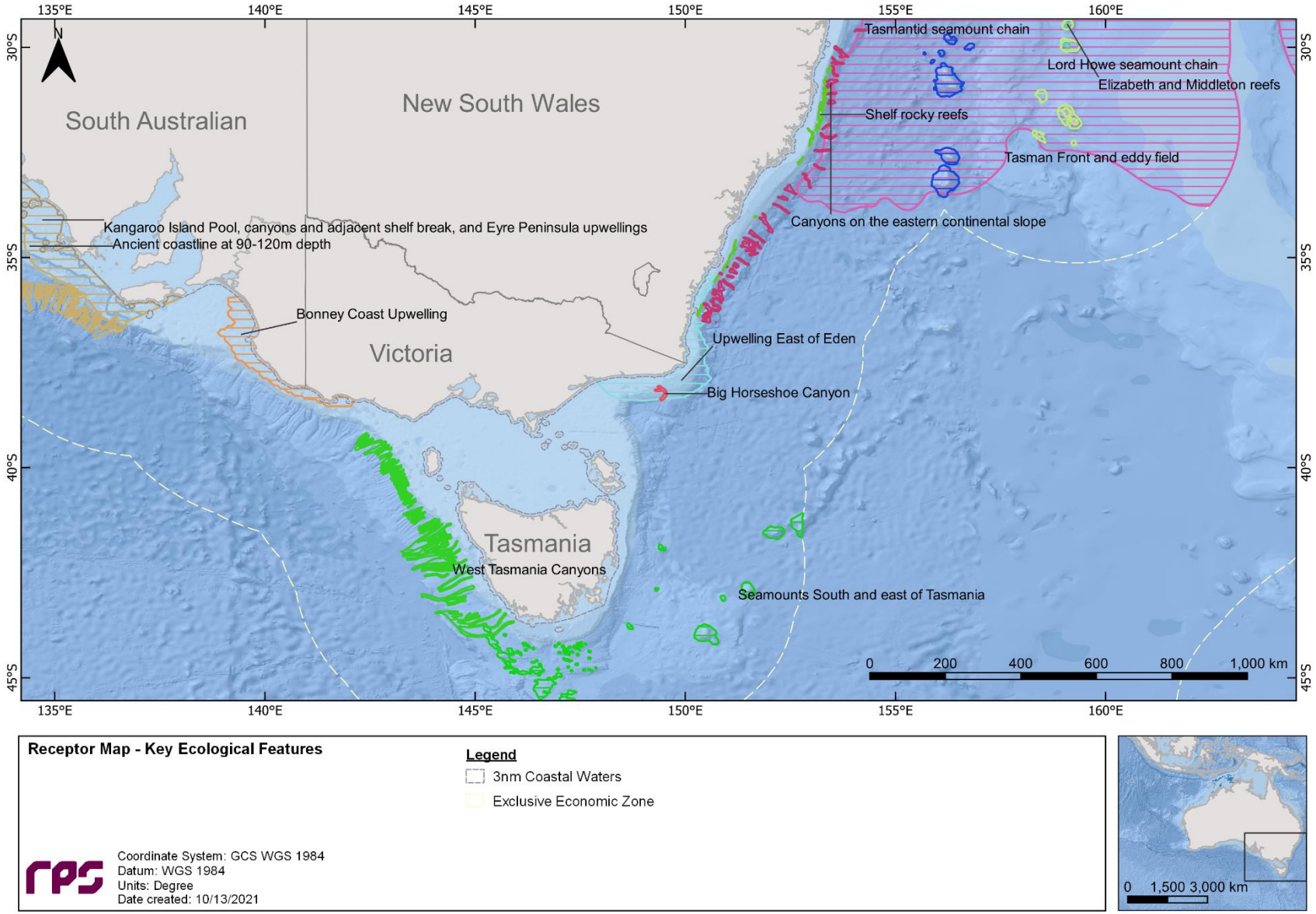


Figure 9.9 Receptor map for Key Ecological Features (KEF).

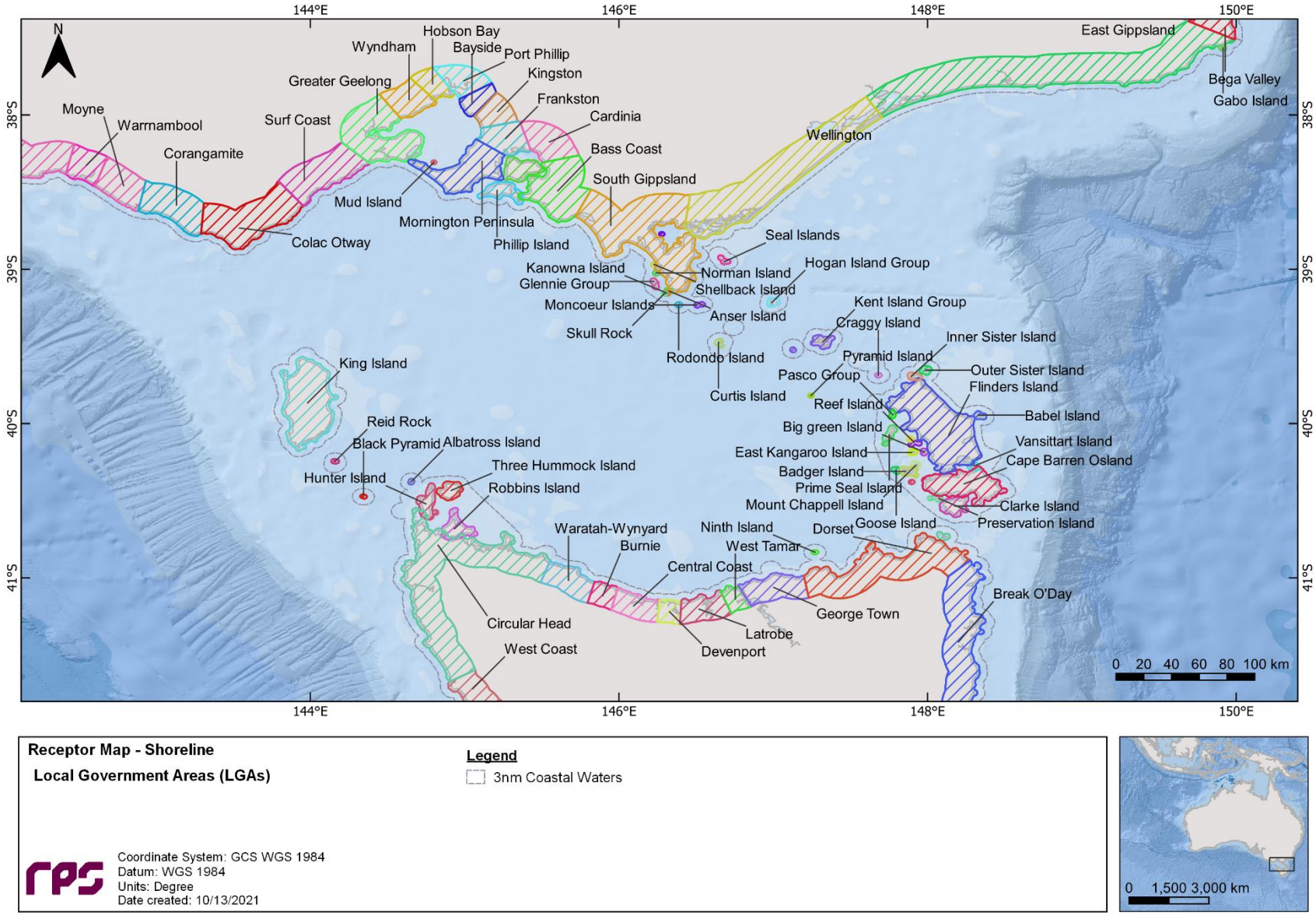


Figure 9.10 Receptor map for shorelines (1 of 3).

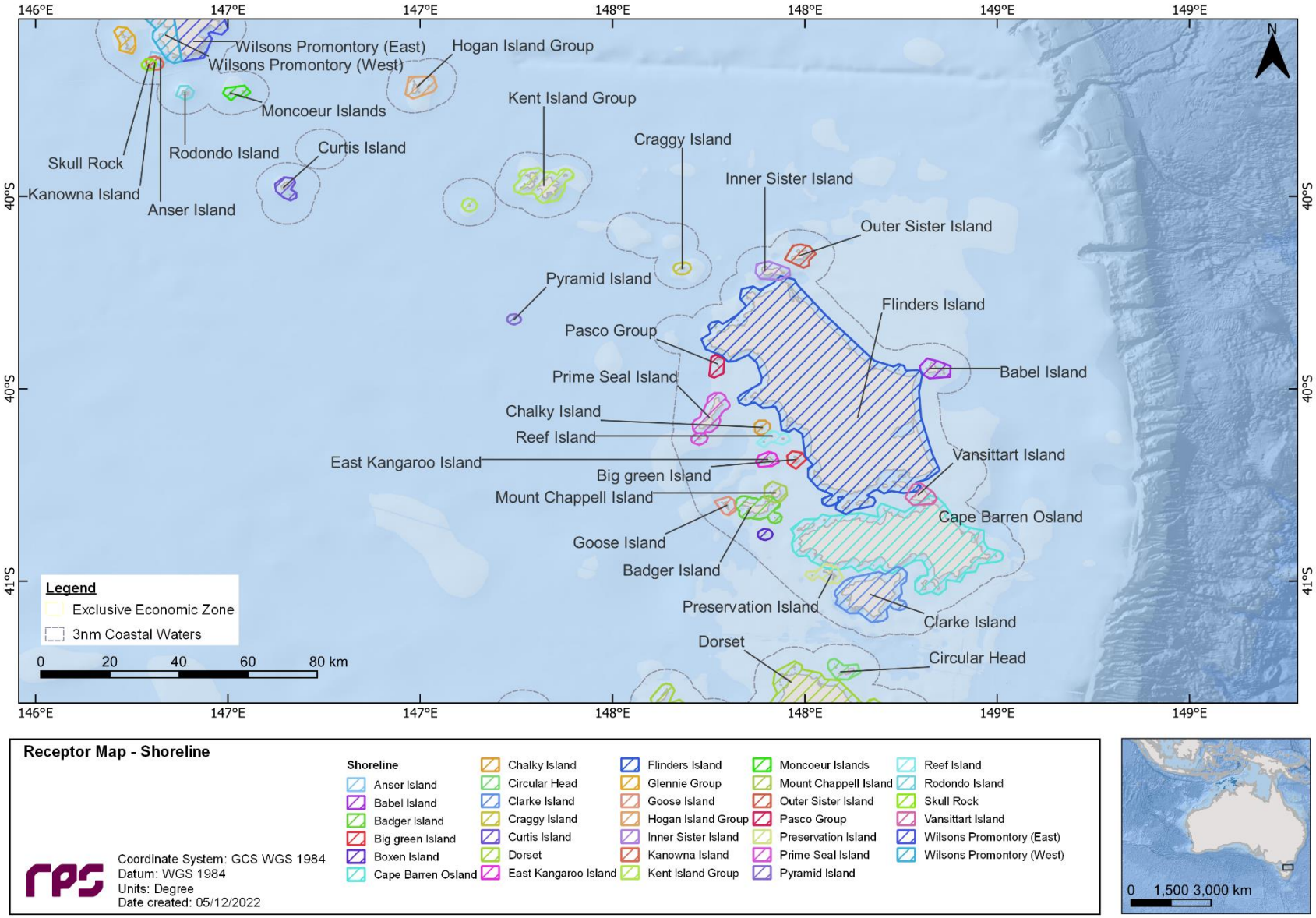


Figure 9.11 Receptor map for shorelines (2 of 3).

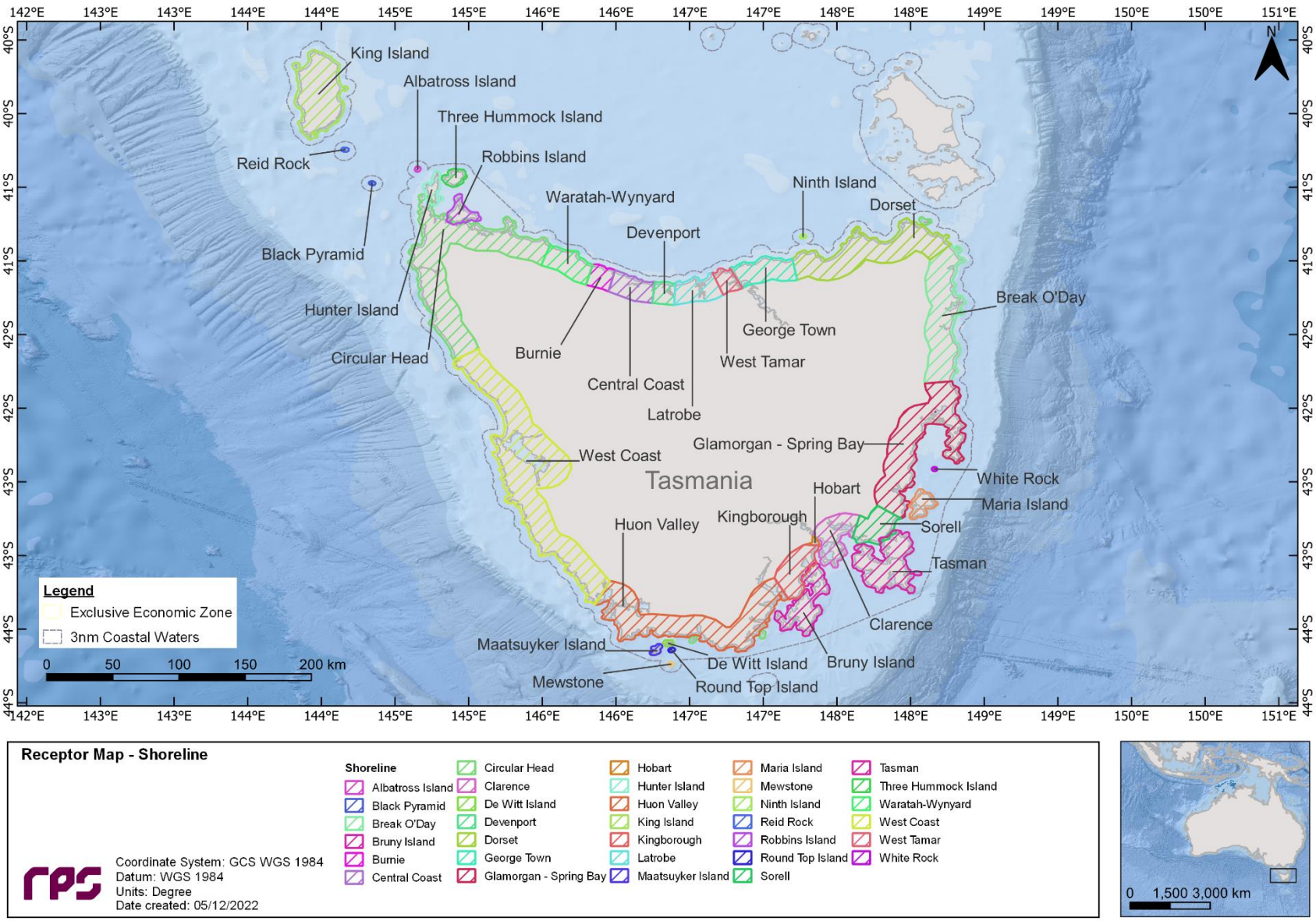


Figure 9.12 Receptor map for shorelines (3 of 3).

10 MODEL SETTINGS

Table 10.1 provides a summary of the spill modelling inputs and thresholds.

The potential risk of exposure to the surrounding waters and contact to shorelines was assessed for summer (October to March) and winter conditions (April to September).

The simulation length was carefully selected based on extensive sensitivity testing. During the sensitivity testing process, sample spill simulations were run for longer than intended durations. Upon completion of the spill simulations, the results were carefully assessed to examine the persistence of the hydrocarbon (i.e. whether the maximum evaporative loss has been achieved for the period of time modelled; and whether a substantial volume of hydrocarbons remain in the water column (if any)) in conjunction with the extent of floating oil exposure based on reporting thresholds. Once there was agreement between the two factors (i.e. the final fate of hydrocarbon is accounted for, and the full exposure area is identified) the simulation length was deemed appropriate.

Table 10.1 Summary of the of the oil spill modelling inputs and thresholds.

Parameter	Vessel collision
Number of release locations	3
Number of randomly selected spill start times per location and per season	100
Model period	Summer (October to March) and winter conditions (April to September)
Oil type	MDO
Total Spill volume (m^3)	350
Release type	Surface
Release duration	6 hours
Simulation length (days)	30
Floating oil exposure thresholds (g/m^2)	1 (low exposure) 10 (moderate exposure) 50 (high exposure)
Shoreline accumulation thresholds (g/m^2)	10 (low potential exposure) 100 (moderate potential exposure) 1,000 (high potential exposure)
Dissolved hydrocarbon exposure thresholds (ppb)	10 (10 ppb x 1 hr, potential low exposure) 50 (50 ppb x 1 hr, potential moderate exposure) 400 (400 ppb x 1 hr, potential high exposure)
Entrained hydrocarbon exposure thresholds (ppb)	10 (10 ppb x 1 hr, potential low exposure) 100 (100 ppb x 1 hr, potential high exposure)

11 CALCULATION OF EXPOSURE RISK

The stochastic sampling approach provides an objective measure of the possible outcomes of a spill because randomly selected environmental conditions with more simulations will tend to use the most commonly occurring conditions, while more unusual conditions will be represented less frequently.

During each simulation, the SIMAP model records the location (by latitude, longitude and depth) of each of the particles (representing a given mass of oil) on or in the water column, at regular time steps. For any particles that contact a shoreline, the model records the accumulation of oil mass that arrives on each section of shoreline over time, less any mass that is lost to evaporation and/or subsequent removal by current and wind forces.

The collective records from all simulations are then analysed by dividing the study region into a three-dimensional grid. For oil particles that are classified as being at the water surface (floating oil), the sum of the mass in all oil particles (including accounting for spreading and dispersion effects) located within a grid cell, divided by the area of the cell provides estimates of the concentration of oil in that grid cell, at each time step. For entrained and dissolved hydrocarbons particles, concentrations are calculated at each time step by summing the mass of particles within a grid cell and dividing by the volume of the grid cell.

The concentrations of oil calculated for each grid cell, at each time step, are then analysed to determine whether concentration estimates exceed defined threshold concentrations over time.

Risks are then summarised as follows:

- The probability of exposure to a location is calculated by dividing the number of spill simulations where any contact occurred above a specified threshold at that location by the total number of replicate spill simulations. For example, if contact occurred at a location (above a specified threshold) during 21 out of 100 simulations, a probability of exposure of 21% is indicated;

- The minimum potential time to a shoreline location is calculated by the shortest time over which oil at a concentration above a threshold was calculated to travel from the source to the location in any of the replicate simulations;

- The maximum potential concentration of oil predicted for each shoreline section is the greatest mass per m^2 of shoreline calculated to strand at any location within that section during any of the replicate simulations; and

- Similar treatments were undertaken for entrained and dissolved hydrocarbon exposures.

Thus, the minimum time to shoreline and the maximum potential concentration estimates indicate the worst potential outcome of the modelled spill scenario for each section of shoreline. However, the average over the replicates presents an average of the potential outcomes, in terms of hydrocarbons that could strand.

Note also that results quoted for sections of shoreline are derived for any individual location within that section, as a conservative estimate. Locations will represent shoreline lengths of the order of ~1 km, while sections or regions will represent shorelines spanning tens to hundreds of kilometres. The maximum potential concentrations quoted will not necessarily occur over the full extent of each section, therefore multiplying the maximum concentration estimates by the full area of the section is not recommended as this will greatly overestimate the total volume expected on that section.

12 LOCATION 1 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 1. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 30 days.

Section 12.1 presents the EMBA, Section 12.2 shows the seasonal (or stochastic) results, while Section 12.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

12.1 EMBA

Figure 12.1 shows the EMBA for Location 1. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

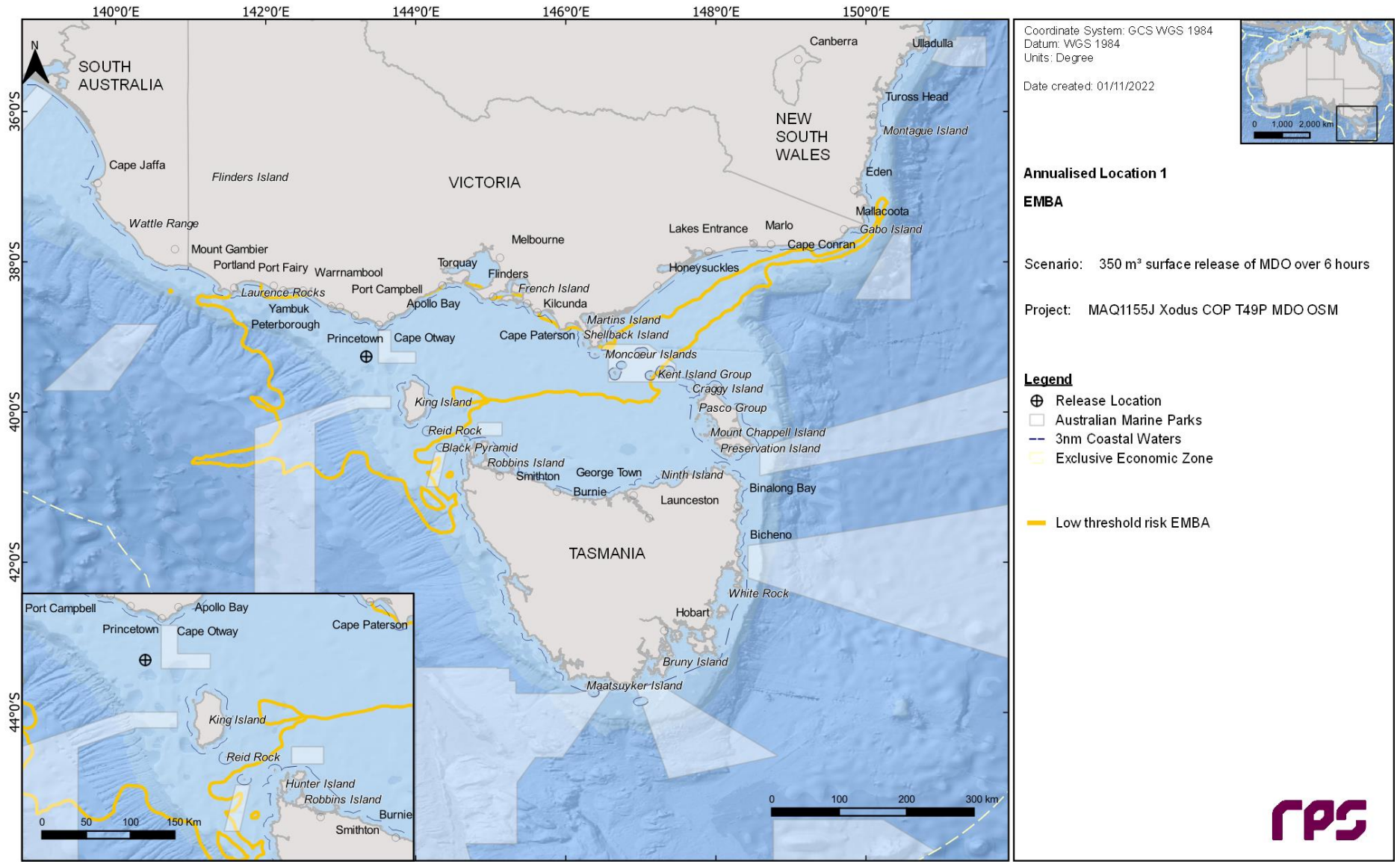


Figure 12.1 Predicted low threshold EMBA from a vessel collision at Location 1. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

12.2 Stochastic Analysis

12.2.1 Floating Oil Exposure

Table 12.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 12.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 12.2 to Figure 12.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer conditions was 129.5 km^2 and 135.0 km^2, respectively.

Table 12.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	29.7	15.5	4.0
	Maximum distance (km) from release location (99^{th} percentile)	19.4	14.7	4.0
	Direction	ENE	E	SW
Winter	Maximum distance (km) from release location	49.8	13.4	2.5
	Maximum distance (km) from release location (99^{th} percentile)	28.3	12.5	2.5
	Direction	E	S	ENE

Table 12.2 Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 1 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	4	1	-	0.50	0.54	-	8	-	-	0.79	-	-
IMACRA	Central Bass Strait	-	-	-	-	-	-	1	-	-	3.33	-	-
	Otway	100	100	15	0.04	0.04	0.08	100	100	13	0.04	0.04	0.04

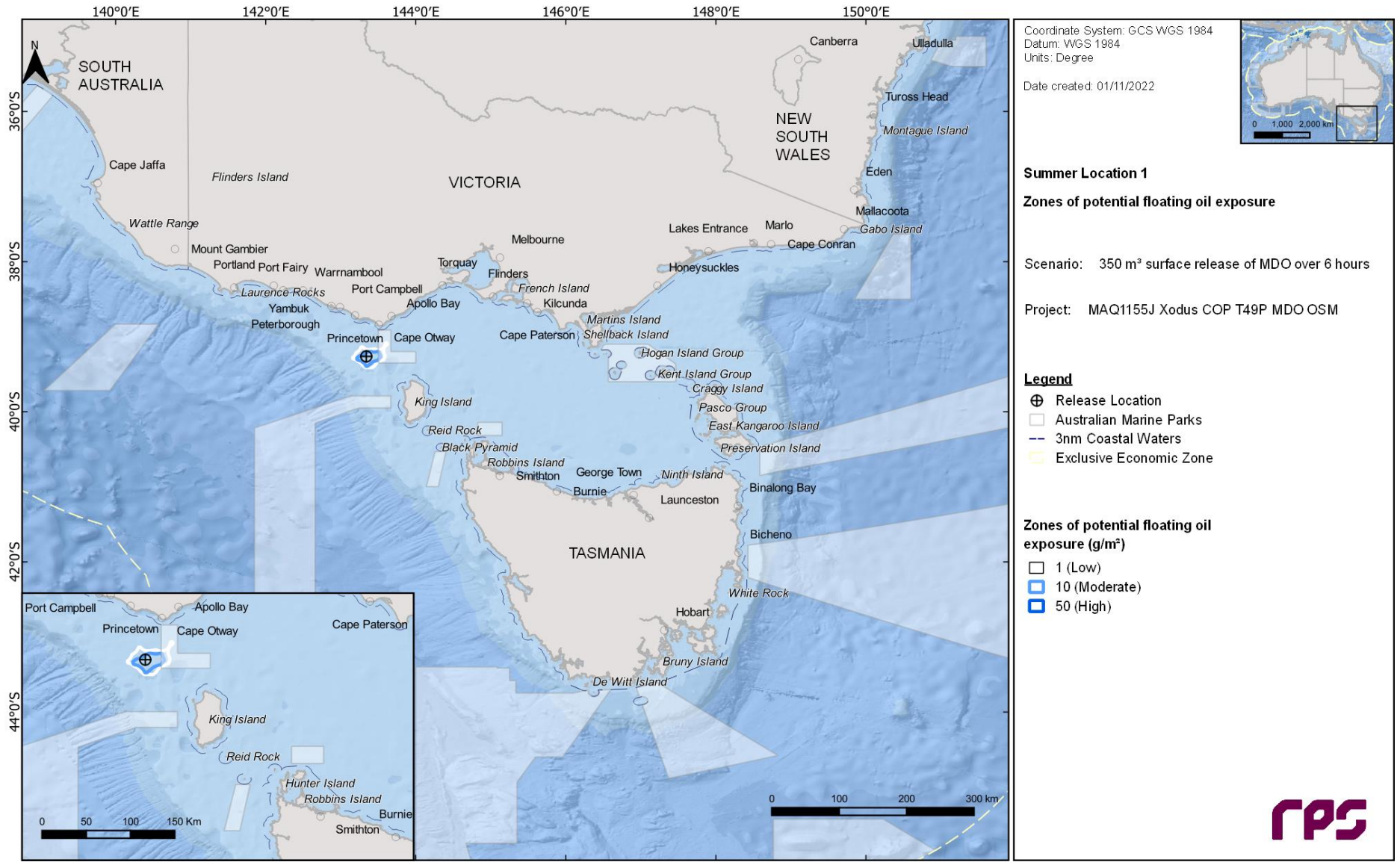


Figure 12.2 Zones of potential floating oil exposure from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

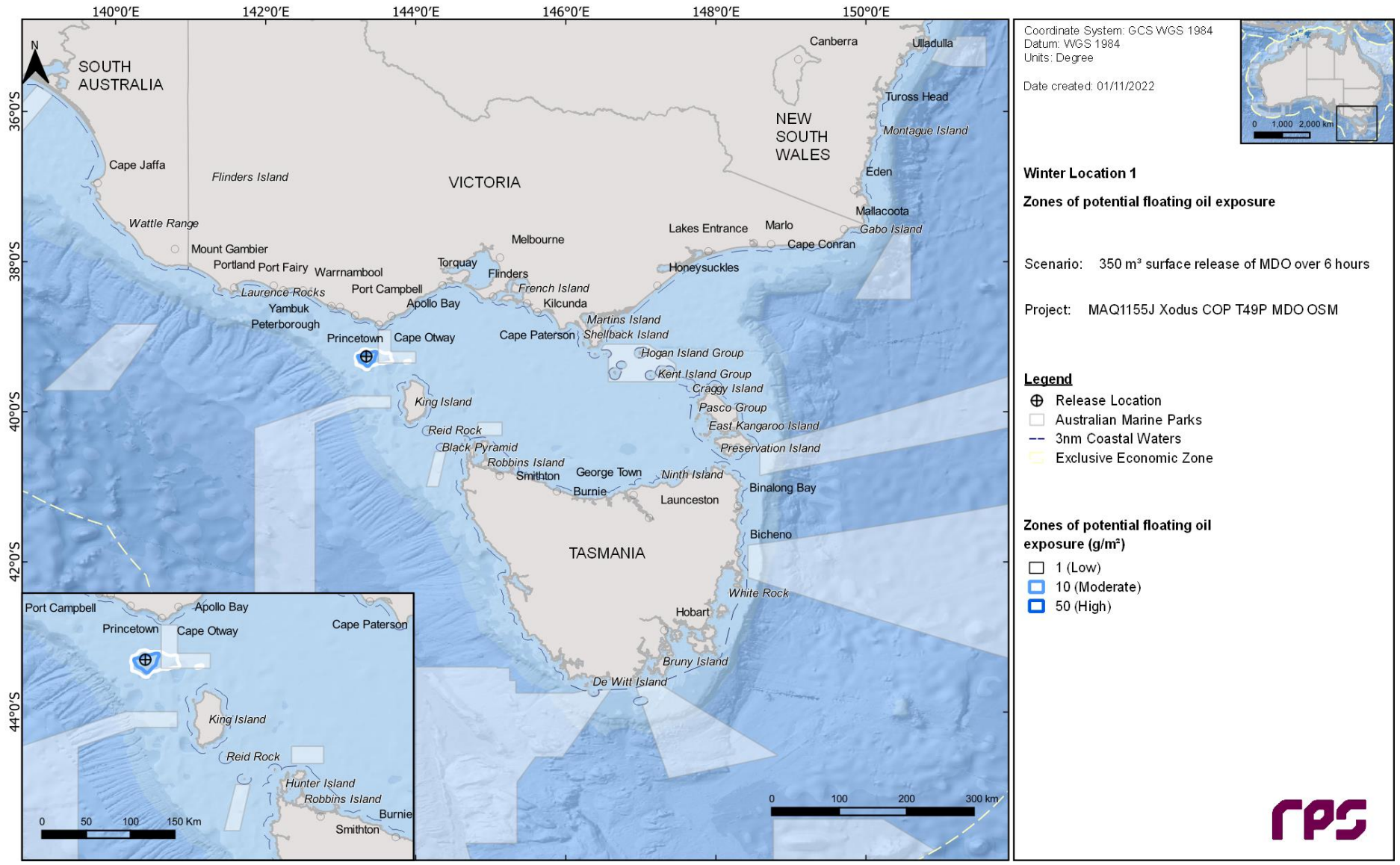


Figure 12.3 Zones of potential floating oil exposure from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

12.2.2 Shoreline Accumulation

Table 12.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 12.4 and Table 12.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 12.4 and Figure 12.5.

Table 12.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 1 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	10	12
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	11.17	4.25
Maximum volume of hydrocarbons ashore (m^3)	3.8	8.2
Average volume of hydrocarbons ashore (m^3)	2	2.1
Maximum length of the shoreline at **10 g/m^2** (km)	12	21
Average shoreline length (km) at **10 g/m^2** (km)	6.7	5.8
Maximum length of the shoreline at **100 g/m^2** (km)	-	1
Average shoreline length (km) at **100 g/m^2** (km)	-	1
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 12.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 1 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Bass Coast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colac Otway	5	-	-	13.46	-	-	17	38	0.8	2.8	5.4	-	-	9.6	-	-
Corangamite	1	-	-	13.58	-	-	21	21	1	1	3.8	-	-	3.8	-	-
Glenelg	1	-	-	18.00	-	-	21	21	1.6	1.6	7.6	-	-	7.6	-	-
Hogan Island Group	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
King Island	1	-	-	11.17	-	-	27	27	2	2	8.6	-	-	8.6	-	-
Laurence Rocks	1	-	-	18.92	-	-	18	18	0.3	0.3	1	-	-	1	-	-
Mornington Peninsula	1	-	-	25.75	-	-	15	15	1.3	1.3	3.8	-	-	3.8	-	-
Moyne	3	-	-	20.42	-	-	15	23	0.3	2.1	2.9	-	-	6.7	-	-
Norman Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phillip Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Gippsland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surf Coast	1	-	-	16.42	-	-	26	26	1.4	1.4	3.8	-	-	3.8	-	-

Table 12.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 1 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Bass Coast	1	-	-	16.46	-	-	13	13	0.6	0.6	1.9	-	-	1.9	-	-
Colac Otway	3	1	-	4.46	8.63	-	26	102	1.3	8.1	13.4	1	-	20.1	1	-
Corangamite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glenelg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hogan Island Group	3	-	-	12.46	-	-	16	21	0.2	0.9	2.2	-	-	3.8	-	-
King Island	3	-	-	4.25	-	-	16	27	0.2	1.3	2.2	-	-	2.9	-	-
Laurence Rocks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mornington Peninsula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moyne	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norman Island	1	-	-	21.17	-	-	43	43	0.9	0.9	1.9	-	-	1.9	-	-
Phillip Island	1	-	-	17.13	-	-	12	12	0.4	0.4	1	-	-	1	-	-
South Gippsland	2	-	-	21.42	-	-	17	37	0.3	2.4	4.8	-	-	8.6	-	-
Surf Coast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

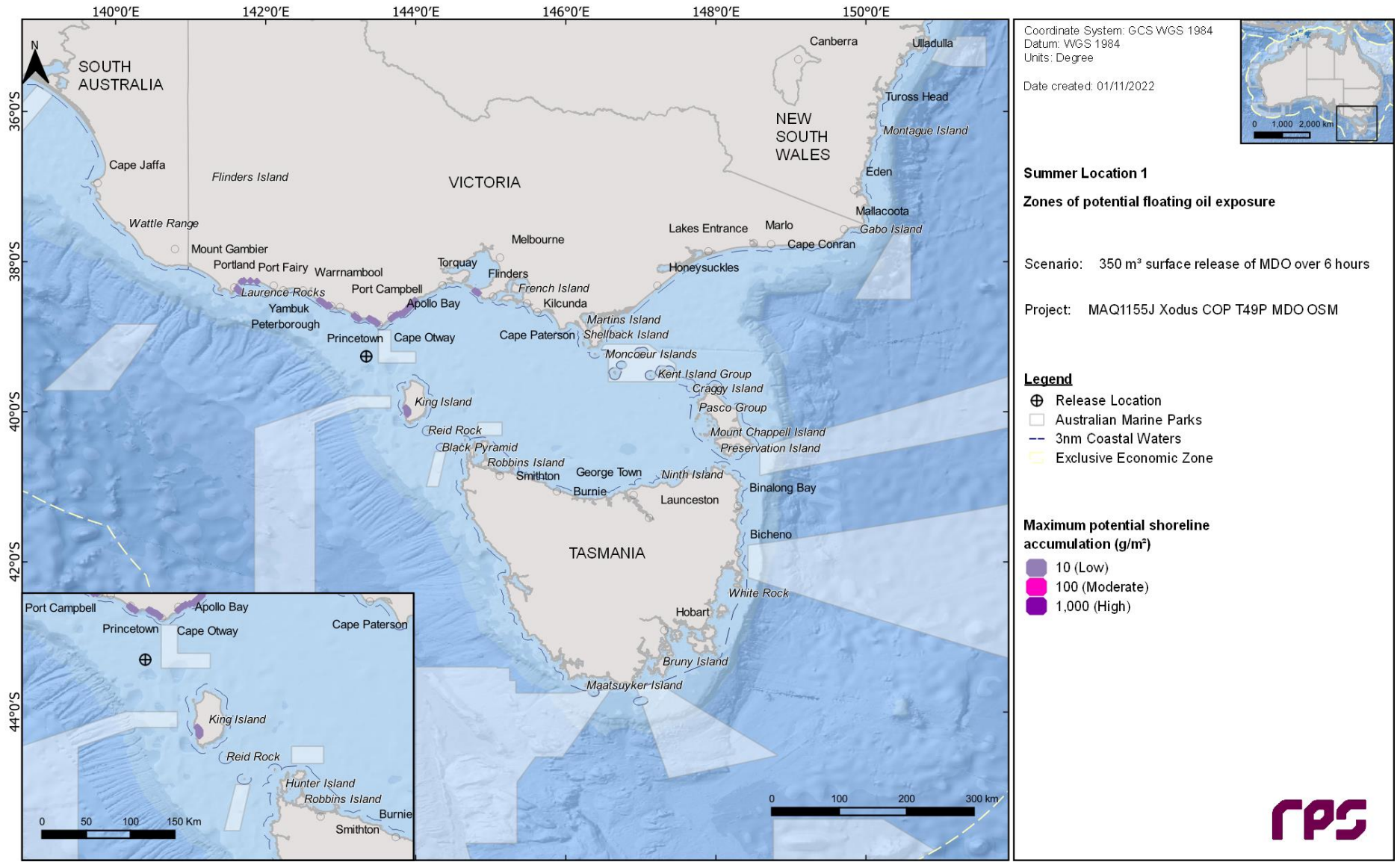


Figure 12.4 Maximum potential shoreline loading from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

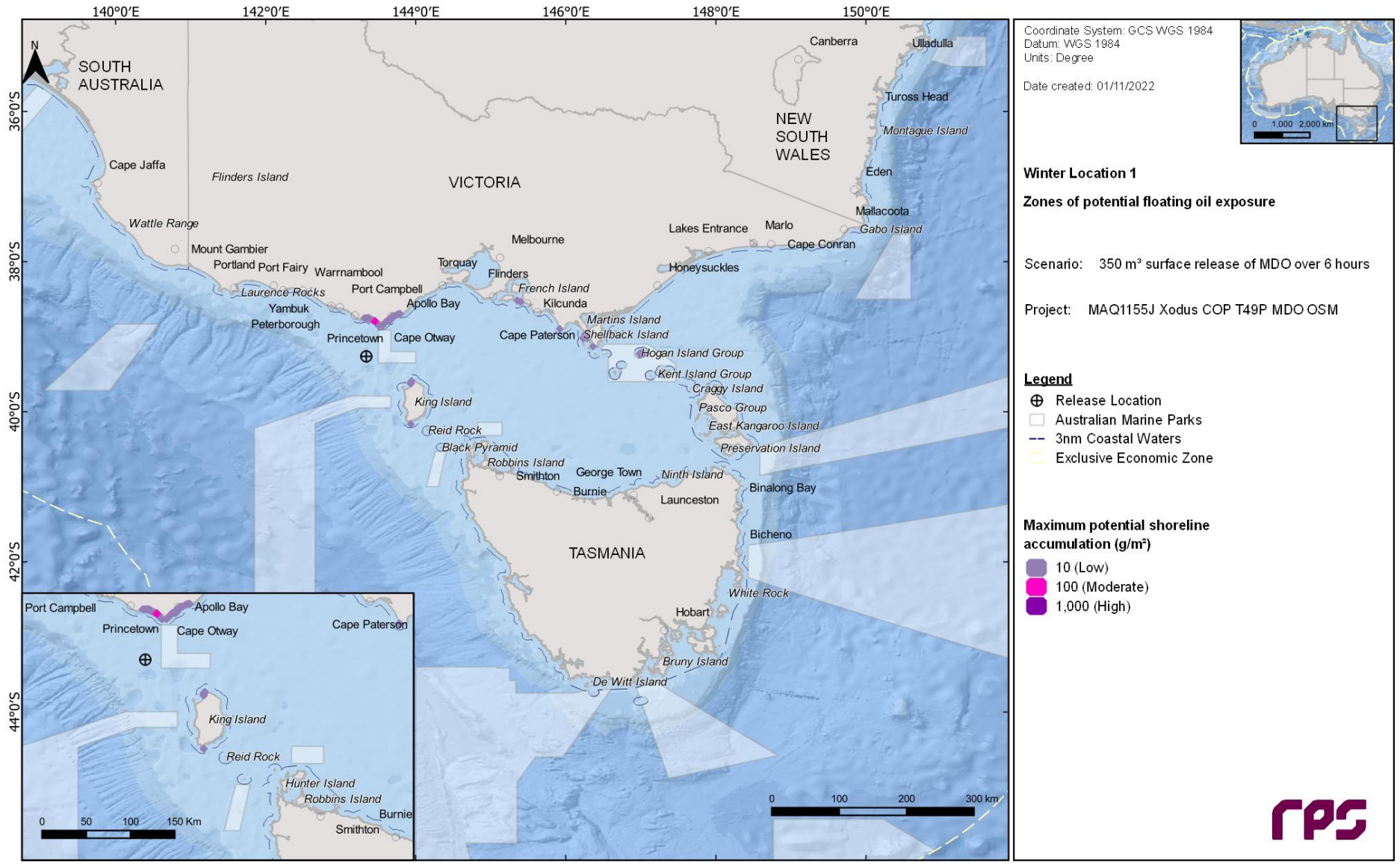


Figure 12.5 Maximum potential shoreline loading from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

12.2.3 In-water exposure

12.2.3.1 Dissolved Hydrocarbons

Table 12.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 12.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 12.6 and Figure 12.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 12.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	64	12	-
	Maximum distance (km) from release location (99th percentile)	49	12	-
	Direction	SW	ENE	-
Winter	Maximum distance (km) from release location	92	11	-
	Maximum distance (km) from release location (99th percentile)	71	11	-
	Direction	E	ENE	-

Table 12.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	46	7	-	-	40	8	-	-
IMCRA	Central Bass Strait	36	3	-	-	28	3	-	-
	Central Victoria	2	-	-	-	15	1	-	-
	Otway	87	59	8	-	80	54	5	-
KEF	West Tasmania Canyons	20	1	-	-	-	-	-	-
State Waters	Tasmania	1	-	-	-	11	1	-	-

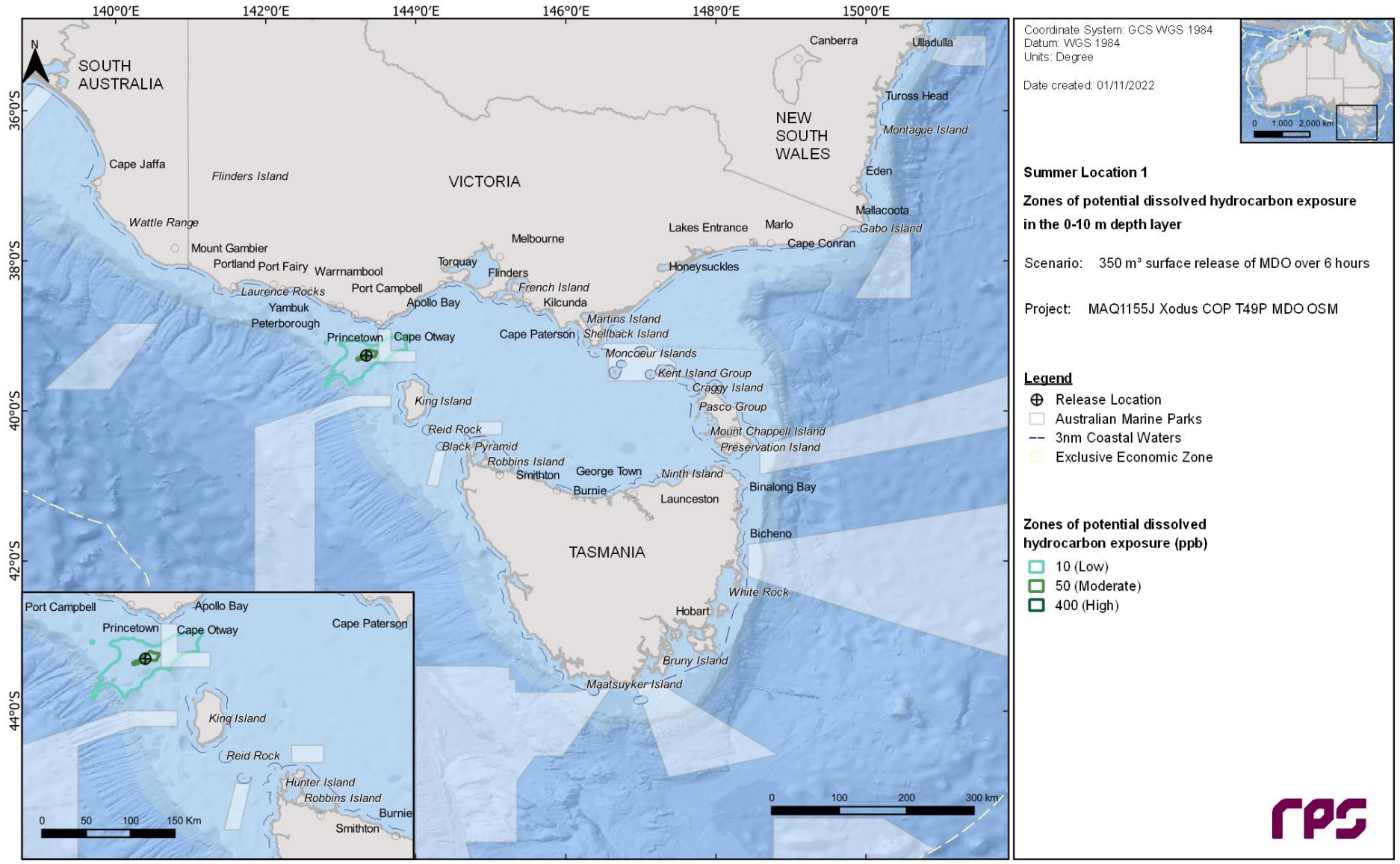


Figure 12.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

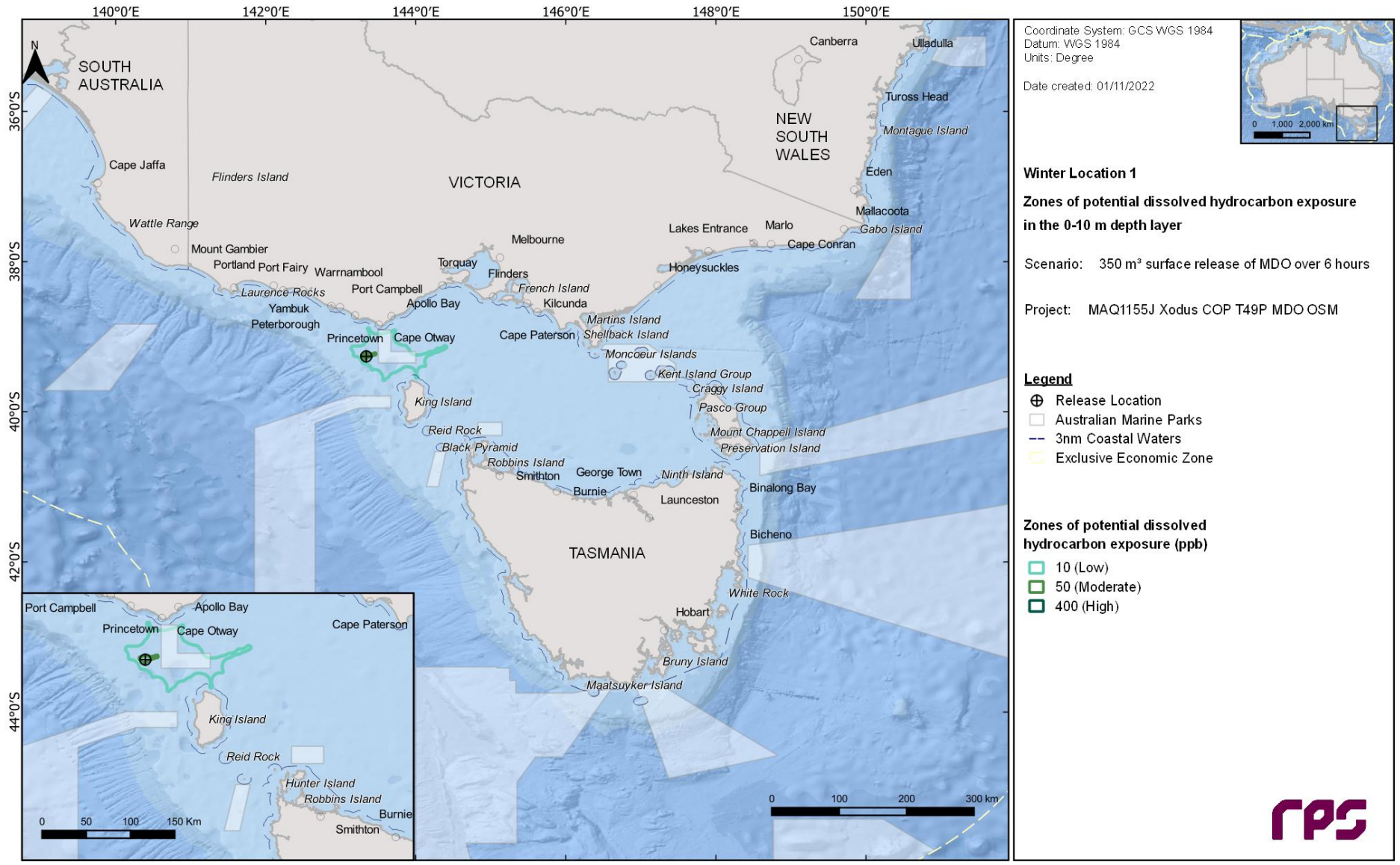


Figure 12.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

12.2.3.2 Entrained Hydrocarbons

Table 12.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 12.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 12.8 and Figure 12.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 12.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	282	113
	Maximum distance (km) from release location (99^{th} percentile)	255	93
	Direction	E	E
Winter	Maximum distance (km) from release location	648	148
	Maximum distance (km) from release location (99^{th} percentile)	520	131
	Direction	ENE	E

Table 12.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	2,789	46	27	1,419	55	35
	Beagle	11	1	-	38	8	-
	Franklin	12	1	-	14	1	-
	Zeehan	117	11	1	73	5	-
IBRA	Bridgewater	25	1	-	-	-	-
	Flinders	1	-	-	33	7	-
	Gippsland Plain	30	3	-	40	1	-
	Glenelg Plain	27	1	-	-	-	-
	King Island	70	6	-	120	7	1
	Otway Plain	54	5	-	160	4	1
	Otway Ranges	49	5	-	160	4	1
	Strzelecki Ranges	6	-	-	11	1	-
	Warrnambool Plain	44	3	-	19	1	-
	Wilsons Promontory	21	2	-	28	6	-
IMCRA	Central Bass Strait	678	30	14	793	37	19
	Central Victoria	179	18	1	351	13	5
	Flinders	22	2	-	40	9	-
	Franklin	21	1	-	14	1	-
	Otway	7,449	98	96	7,283	98	92
	Twofold Shelf	6	-	-	36	7	-
	Victorian Embayments	20	3	-	40	1	-
KEF	Bonney Coast Upwelling	30	4	-	-	-	-
	Upwelling East of Eden	-	-	-	15	2	-
	West Tasmania Canyons	330	12	3	26	2	-
MNP	Churchill Island	3	-	-	31	1	-
	Point Addis	28	2	-	5	-	-
	Port Phillip Heads	15	3	-	1	-	-
	Twelve Apostles	39	3	-	12	1	-
	Wilsons Promontory	20	2	-	14	2	-
MS	Marengo Reefs	21	3	-	139	3	1
	The Arches	15	1	-	-	-	-
NP	Kent Group	-	-	-	11	1	-
NPS4	Bunurong Marine Park	2	-	-	14	1	-
	Wilsons Promontory Marine Park	8	-	-	20	1	-
	Wilsons Promontory Marine Reserve	14	2	-	13	1	-
Ramsar	Lavinia	2	-	-	13	1	-

	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	15	1	-	-	-	-
	Western Port	5	-	-	31	1	-
RSB	Bell Reef	25	2	-	17	1	-
	Bravenes Rock	43	5	-	23	1	-
	Cody Bank	7	-	-	12	2	-
	Cutter Rock	2	-	-	31	7	-
Nearshore Waters	Anser Island	19	1	-	11	1	-
	Bass Coast	4	-	-	40	1	-
	Colac Otway	54	5	-	160	4	1
	Corangamite	44	3	-	39	1	-
	Curtis Island	1	-	-	24	5	-
	Glenelg	27	1	-	-	-	-
	Glennie Group	19	2	-	13	1	-
	Greater Geelong	17	3	-	-	-	-
	Hogan Island Group	-	-	-	32	7	-
	Kanowna Island	19	2	-	12	1	-
	Kent Island Group	1	-	-	11	1	-
	King Island	70	6	-	120	7	1
	Laurence Rocks	25	1	-	-	-	-
	Moncoeur Islands	7	-	-	28	5	-
	Mornington Peninsula	30	3	-	8	-	-
	Moyne	25	3	-	-	-	-
	Norman Island	11	2	-	19	1	-
	Phillip Island	17	2	-	40	1	-
	Reid Rock	24	2	-	17	2	-
	Rodondo Island	12	2	-	21	6	-
	Shellback Island	8	-	-	19	1	-
	Skull Rock	21	2	-	12	1	-
	South Gippsland	16	1	-	21	1	-
	Surf Coast	20	2	-	2	-	-
	Warrnambool	11	1	-	-	-	-
State Waters	Tasmania	91	6	-	198	19	2
	Victoria	54	6	-	219	7	1

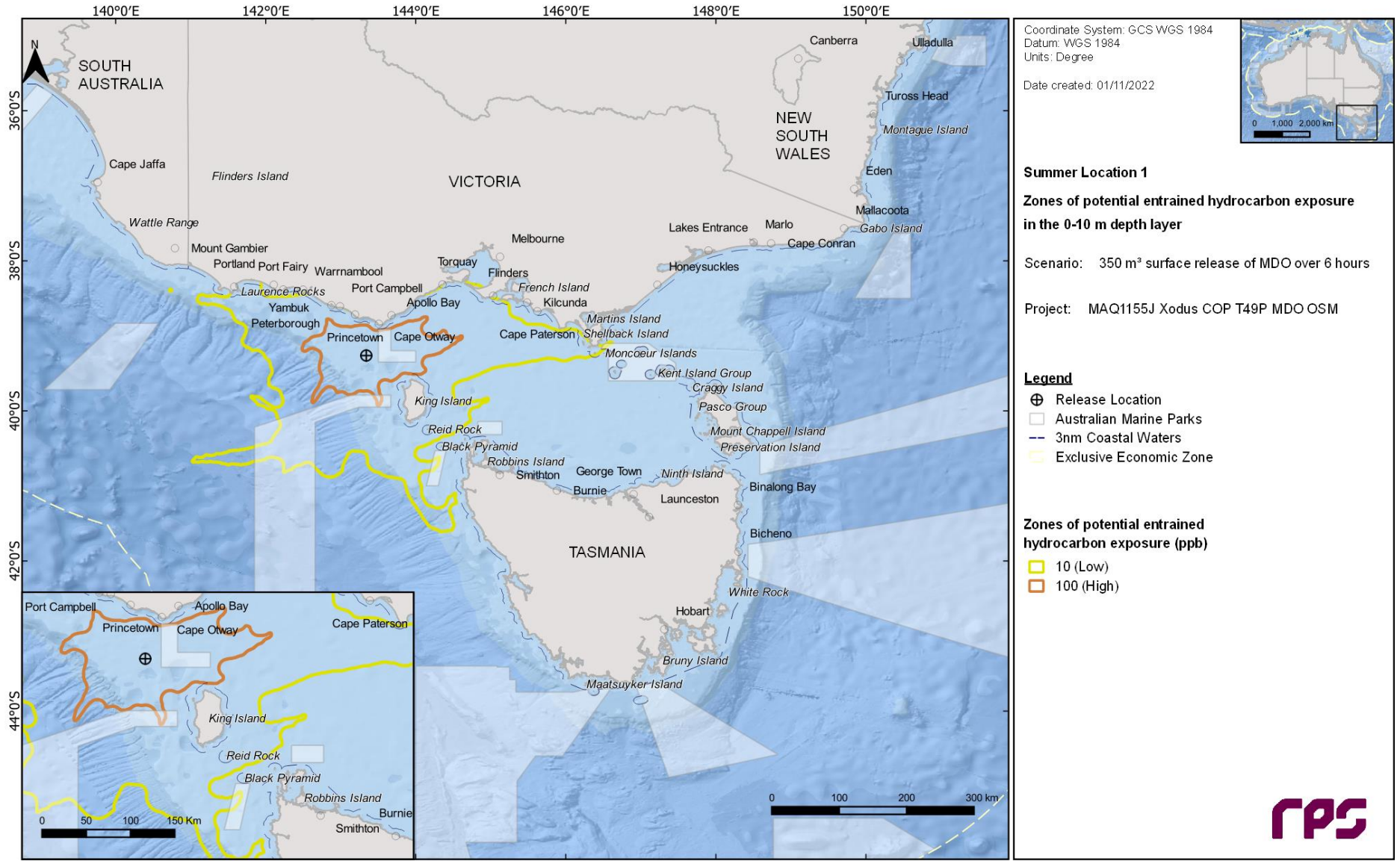


Figure 12.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

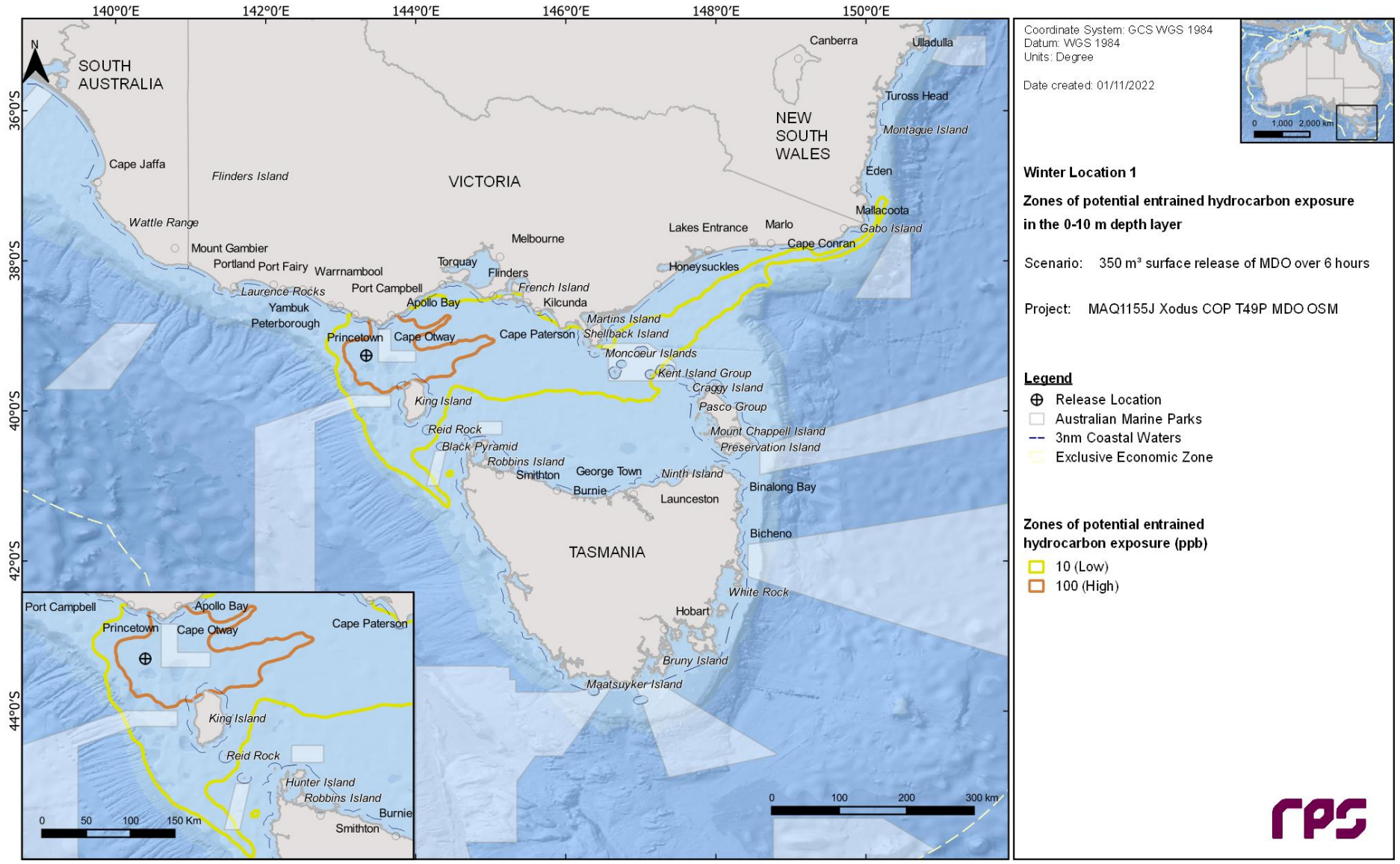


Figure 12.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

12.3 Deterministic Analysis

12.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of oil ashore was identified as run number 94 and commenced during winter conditions, 6 pm 31st August 2013.

Figure 13.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 15.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 30 days are presented in Figure 13.11 and Figure 13.12, respectively.

Figure 13.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 191 m^3 (~55%) was lost to the atmosphere through evaporation. Approximately, 100 m^3 (~29%) of the released volume decayed, while approximately 60 m^3 (~17%) was predicted to remain within the water column and approximately 3 m^3 (~1%) was present on the shorelines.

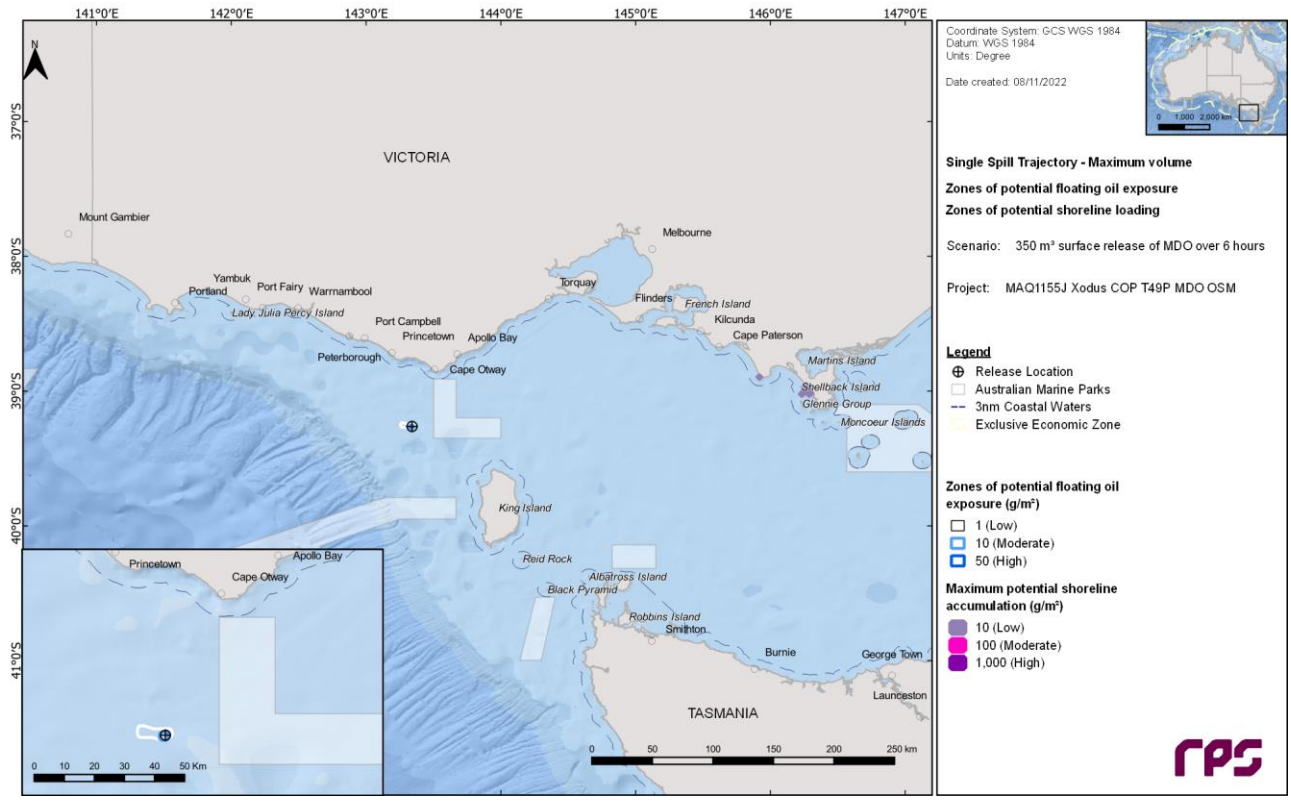


Figure 12.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

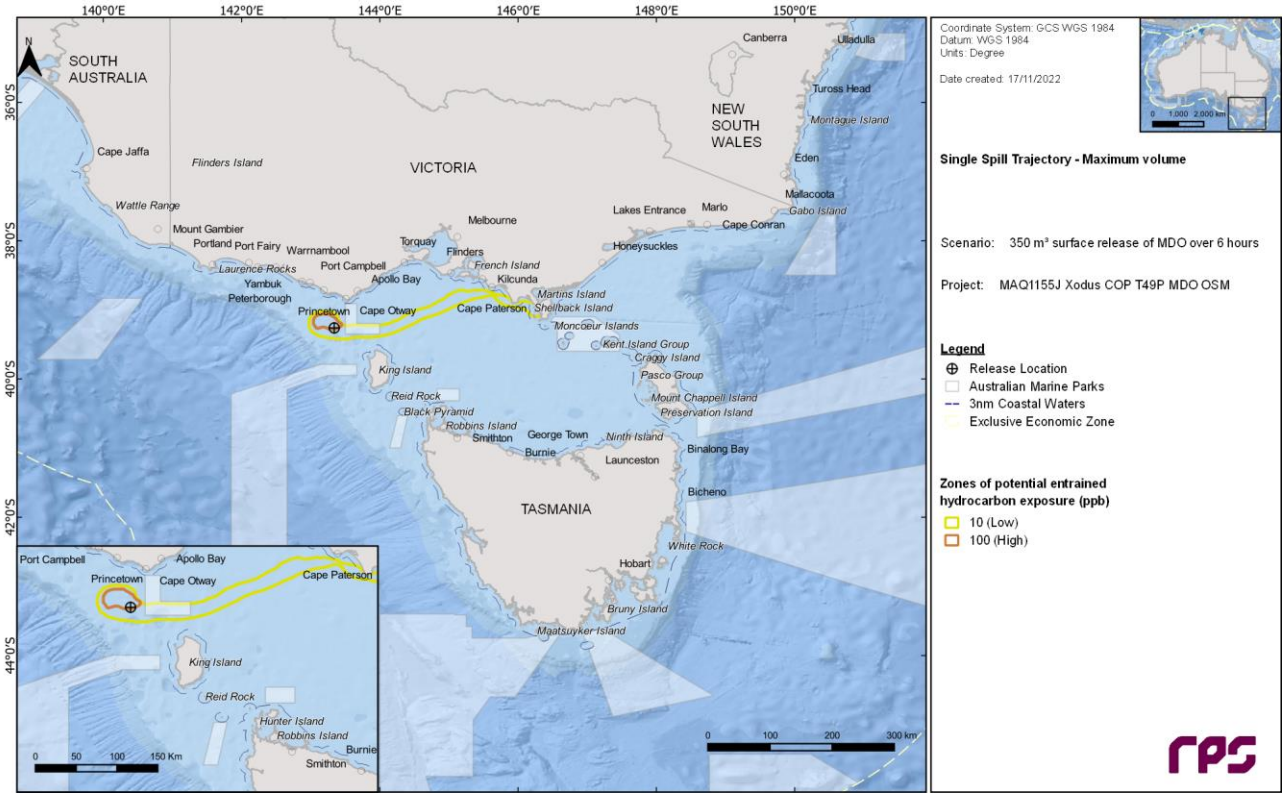


Figure 12.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

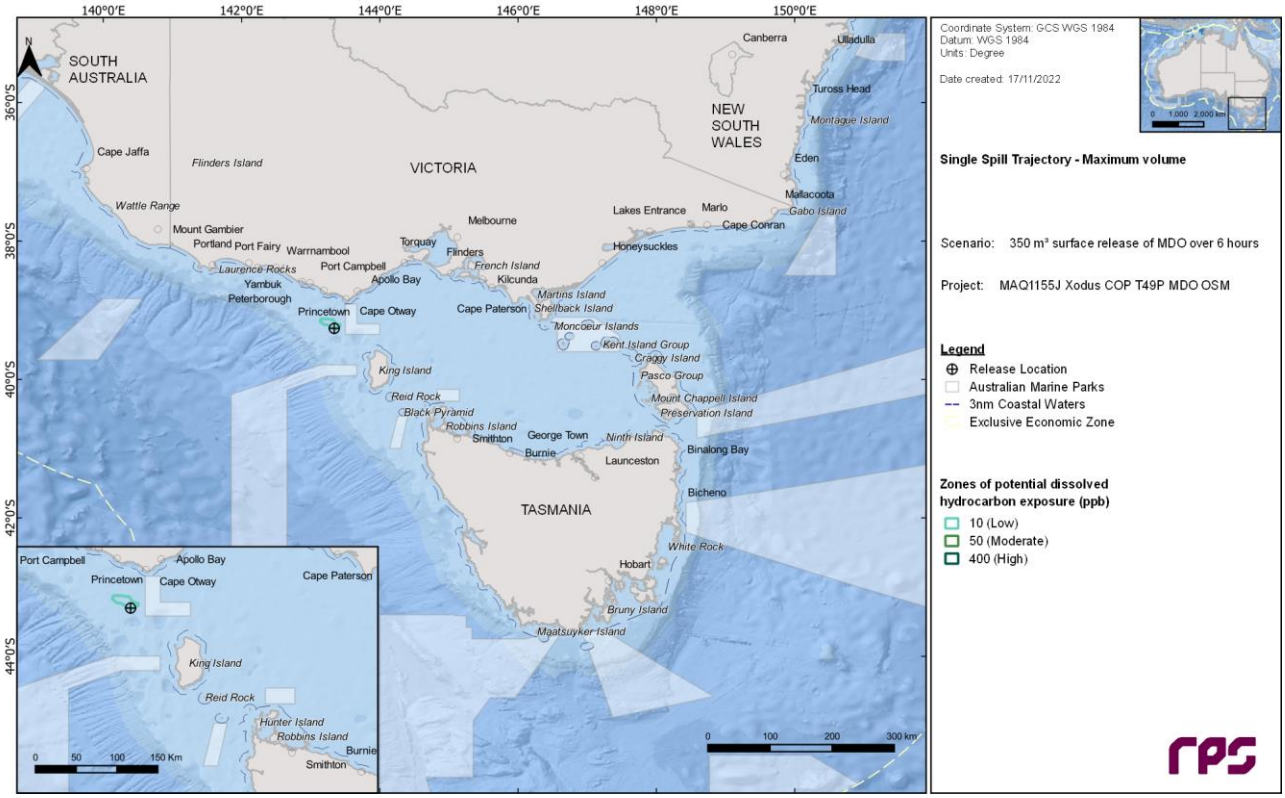


Figure 12.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

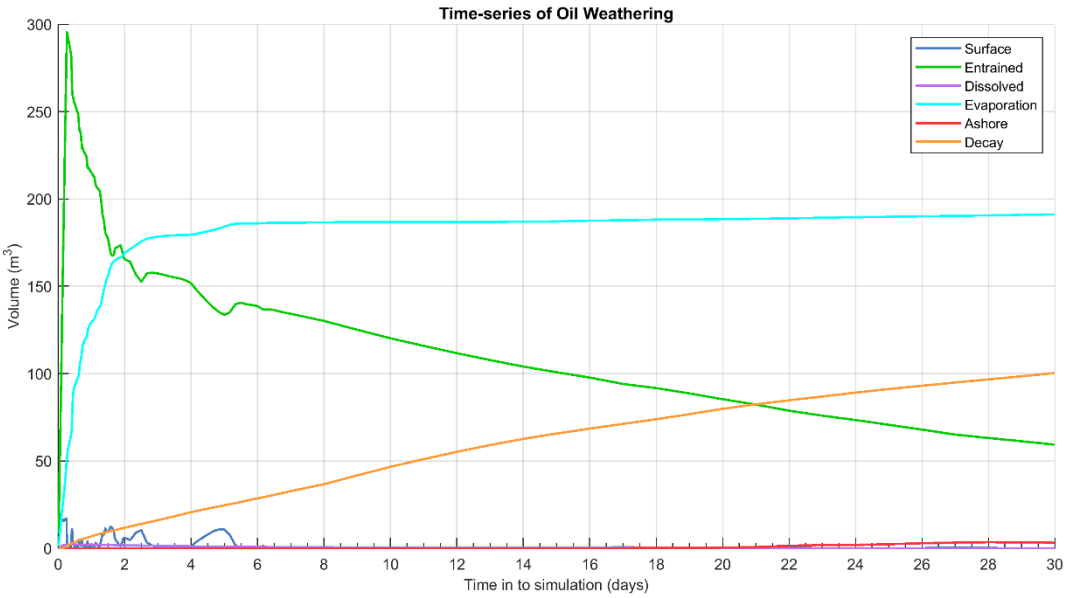


Figure 12.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

13 LOCATION 2 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 2. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 30 days.

Section 13.1 presents the EMBA, Section 13.2 shows the seasonal (or stochastic) results, while Section 13.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

13.1 EMBA

Figure 13.1 shows the EMBA for Location 2. The EMBA encompasses the outer extent of all 200 l spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

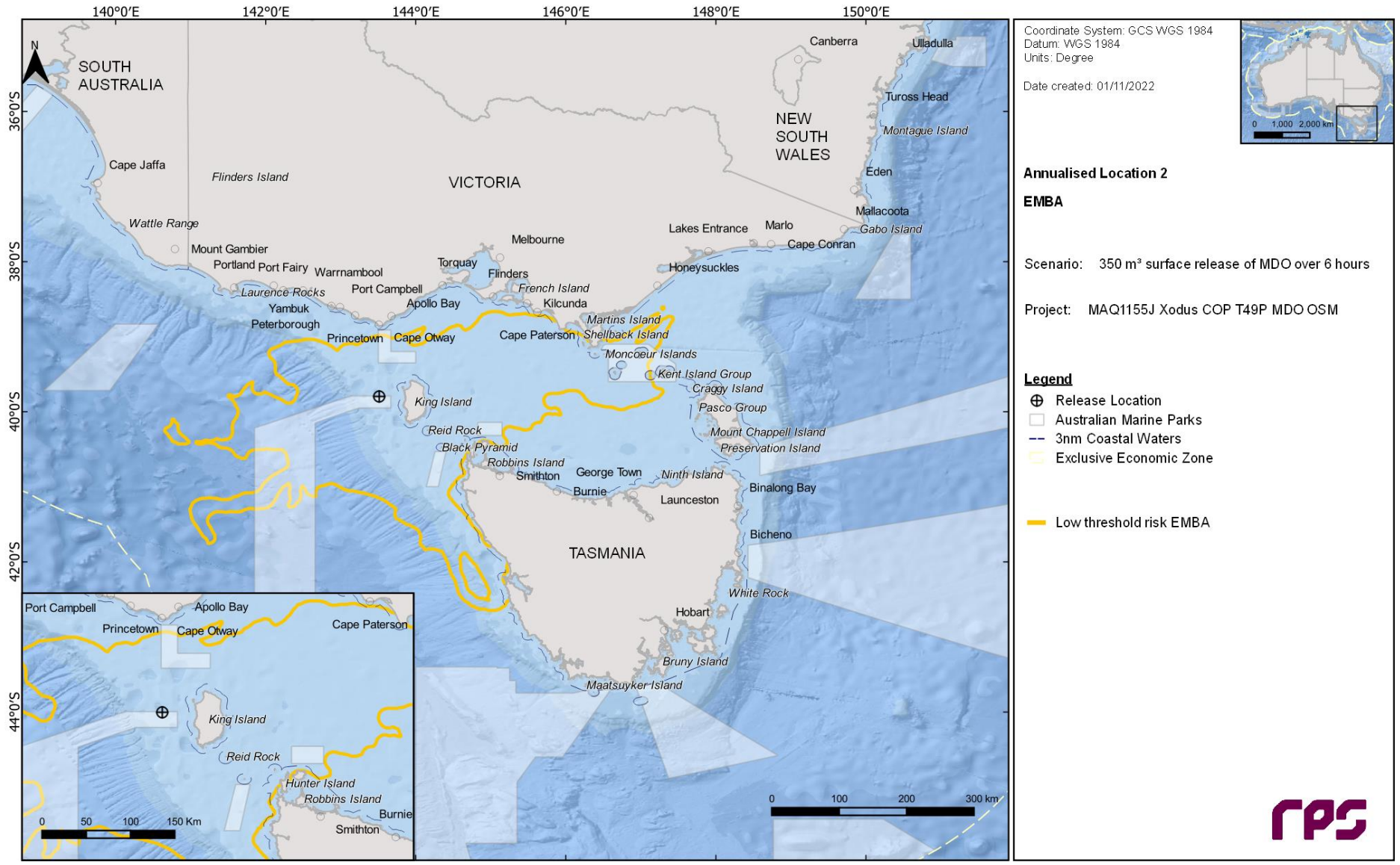


Figure 13.1 Predicted low threshold EMBA from a vessel collision at Location 2. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

13.2 Stochastic Analysis

13.2.1 Floating Oil Exposure

Table 13.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 13.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 13.2 to Figure 13.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 154.1 km^2 and 116.7 km^2, respectively.

Table 13.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	37.8	19.2	5.2
	Maximum distance (km) from release location (99^{th} percentile)	23	17.9	5.2
	Direction	NE	S	SSW
Winter	Maximum distance (km) from release location	42.7	15.6	3.2
	Maximum distance (km) from release location (99^{th} percentile)	22.3	15.2	3.2
	Direction	SE	ESE	ESE

Table 13.2 Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 2 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Zeehan	100	100	16	0.04	0.04	0.04	100	100	17	0.04	0.04	0.04
IBRA	King Island	-	-	-	-	-	-	3	-	-	2.58	-	-
IMCRA	Otway	100	100	16	0.04	0.04	0.04	100	100	17	0.04	0.04	0.04
Near Shore Waters	King Island	-	-	-	-	-	-	3	-	-	2.58	-	-
State Waters	Tasmania	-	-	-	-	-	-	5	-	-	1.79	-	-

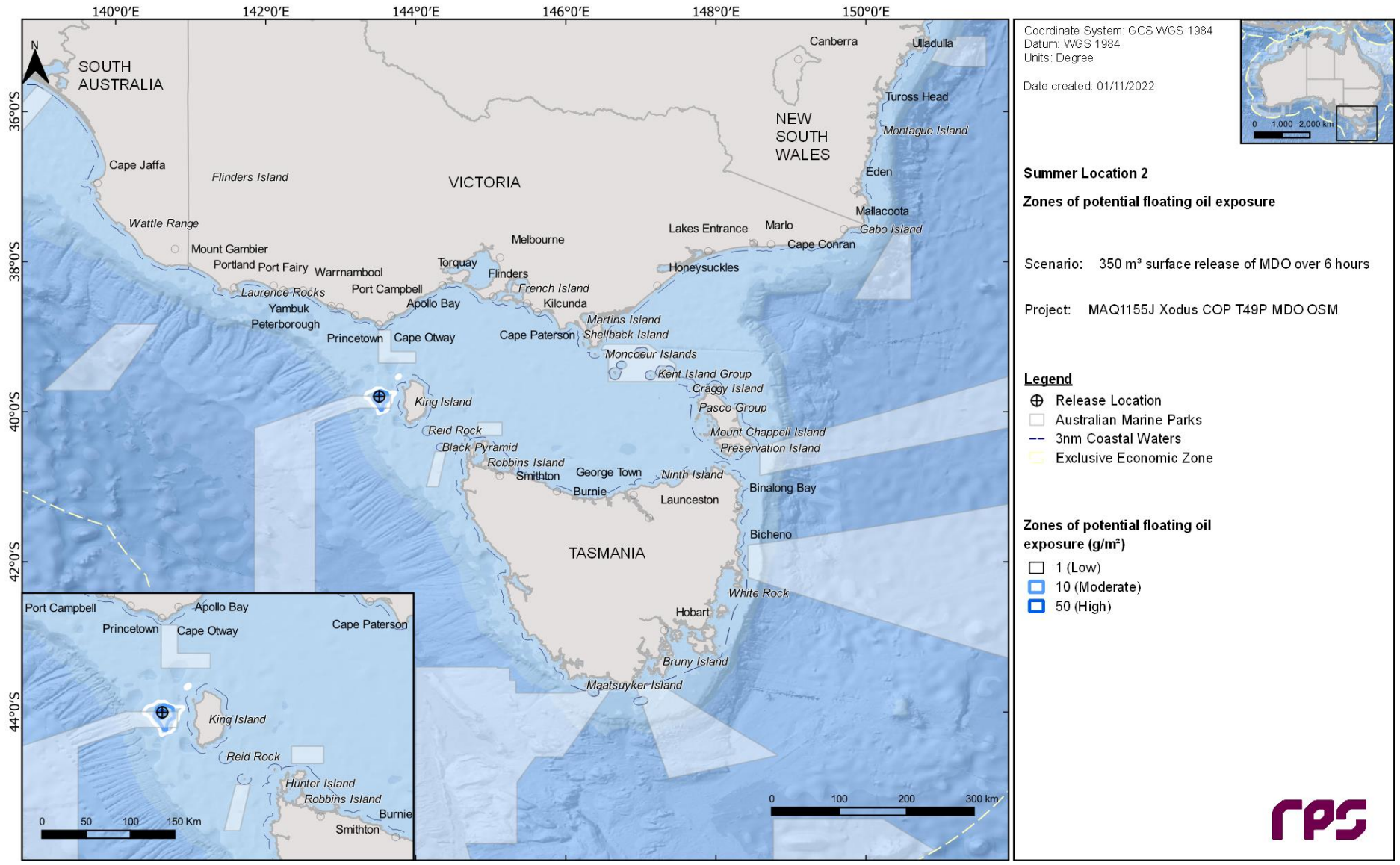


Figure 13.2 Zones of potential floating oil exposure from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

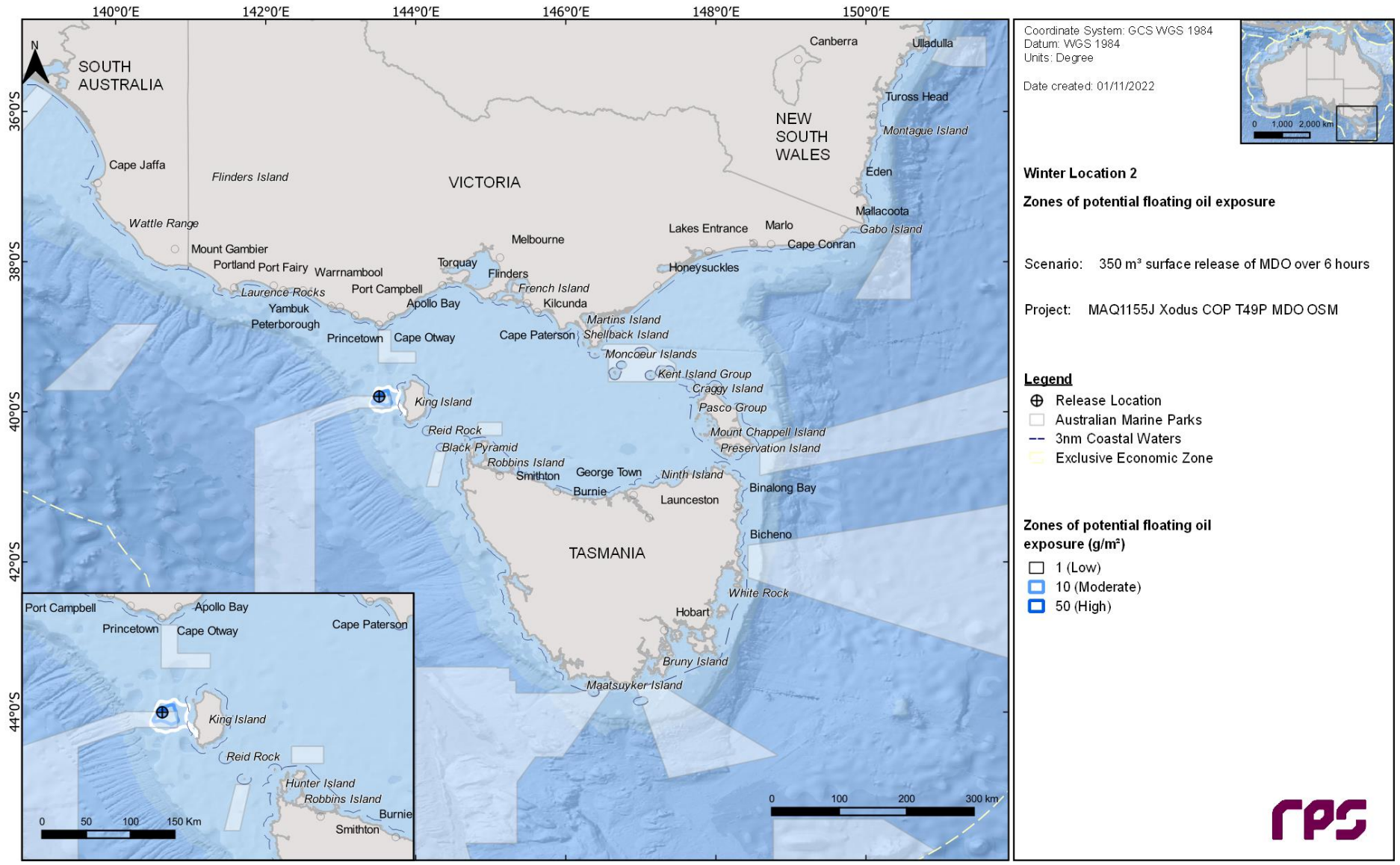


Figure 13.3 Zones of potential floating oil exposure from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

13.2.2 Shoreline Accumulation

Table 13.3Table 12.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 13.4 to Table 13.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 13.4 and Figure 13.5.

Table 13.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 2 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	35	68
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	2.33	1.50
Maximum volume of hydrocarbons ashore (m^3)	35.2	47.4
Average volume of hydrocarbons ashore (m^3)	5.1	8.3
Maximum length of the shoreline at **10 g/m^2** (km)	27	35
Average shoreline length (km) at **10 g/m^2** (km)	9.2	11.9
Maximum length of the shoreline at **100 g/m^2** (km)	11	14
Average shoreline length (km) at **100 g/m^2** (km)	3.5	4.1
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	2
Average shoreline length (km) at **1,000 g/m^2** (km)	-	2

Table 13.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 2 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Pyramid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glennie Group	1	-	-	11.38	-	-	54	54	2.6	2.6	5.7	-	-	5.7	-	-
Hunter Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kanowna Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
King Island	33	10	-	2.33	2.67	-	34	451	5	35.2	9	3.3	-	25.8	10.5	-
Moncoeur Islands	1	-	-	15.79	-	-	14	14	0.3	0.3	1.9	-	-	1.9	-	-
Reid Rock	1	-	-	8.75	-	-	19	19	0.4	0.4	2.9	-	-	2.9	-	-
Rodondo Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skull Rock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Gippsland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Coast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 13.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 2 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	1	1	-	8.71	9.29	-	148	148	2.9	2.9	1.9	1.9	-	1.9	1.9	-
Black Pyramid	1	-	-	12.25	-	-	10	10	< 0.1	< 0.1	1	-	-	1	-	-
Glennie Group	1	-	-	9.79	-	-	27	27	0.6	0.6	1.9	-	-	1.9	-	-
Hunter Island	1	-	-	23.92	-	-	13	13	0.8	0.8	1	-	-	1	-	-
Kanowna Island	1	1	-	7.38	10.25	-	119	119	3.4	3.4	3.8	1.9	-	3.8	1.9	-
King Island	62	26	1	1.5	1.96	5.54	55	1,959	8	47.4	12.1	4	1.9	33.5	13.4	1.9
Moncoeur Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reid Rock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rodondo Island	1	-	-	14.58	-	-	12	12	0.1	0.1	1	-	-	1	-	-
Skull Rock	1	1	-	7.38	10.25	-	119	119	2.2	2.2	2.9	1	-	2.9	1	-
South Gippsland	2	-	-	8.79	-	-	27	99	< 0.1	3.6	6.2	-	-	9.6	-	-
West Coast	1	-	-	18.67	-	-	14	14	1.5	1.5	3.8	-	-	3.8	-	-

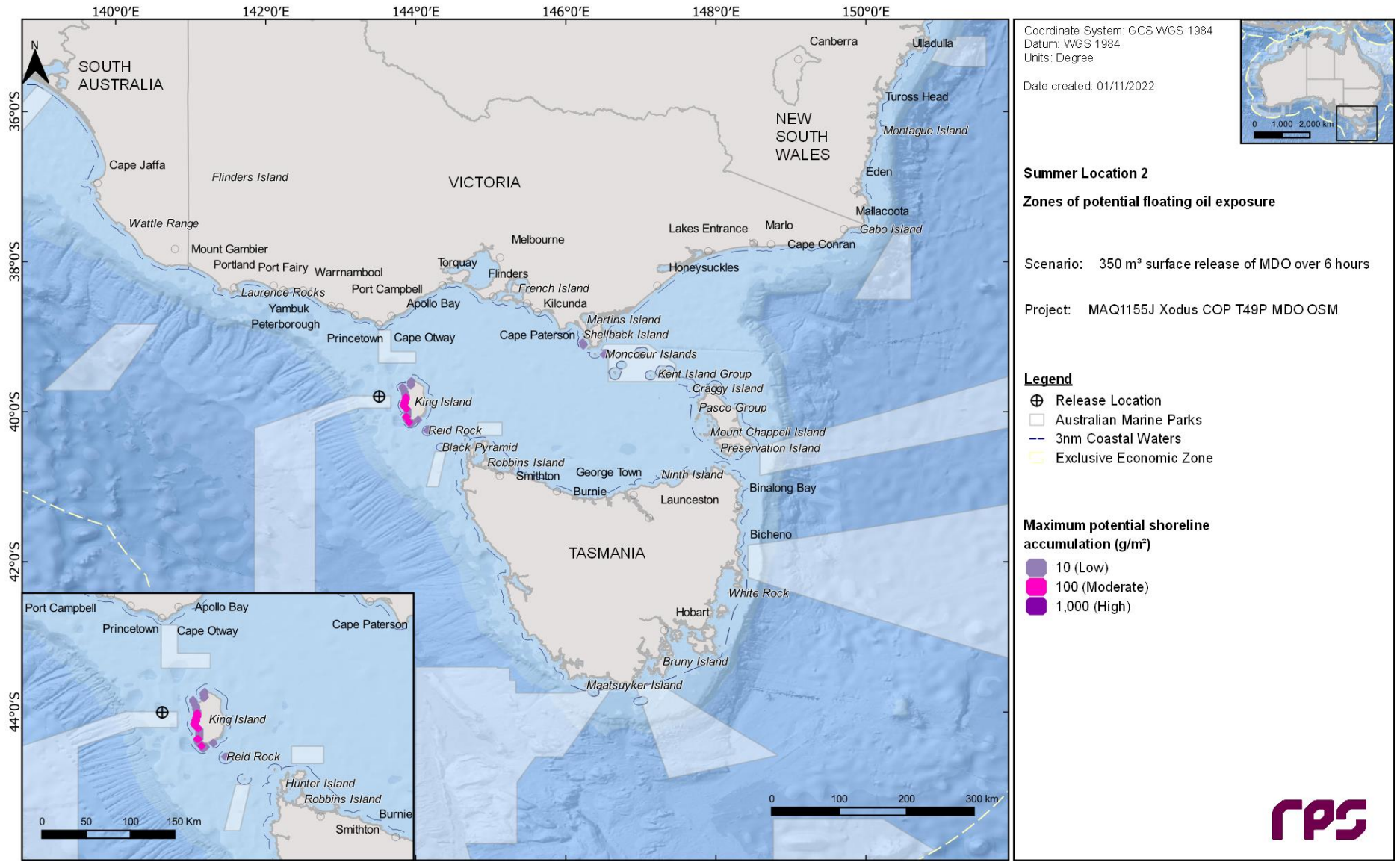


Figure 13.4 Maximum potential shoreline loading from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

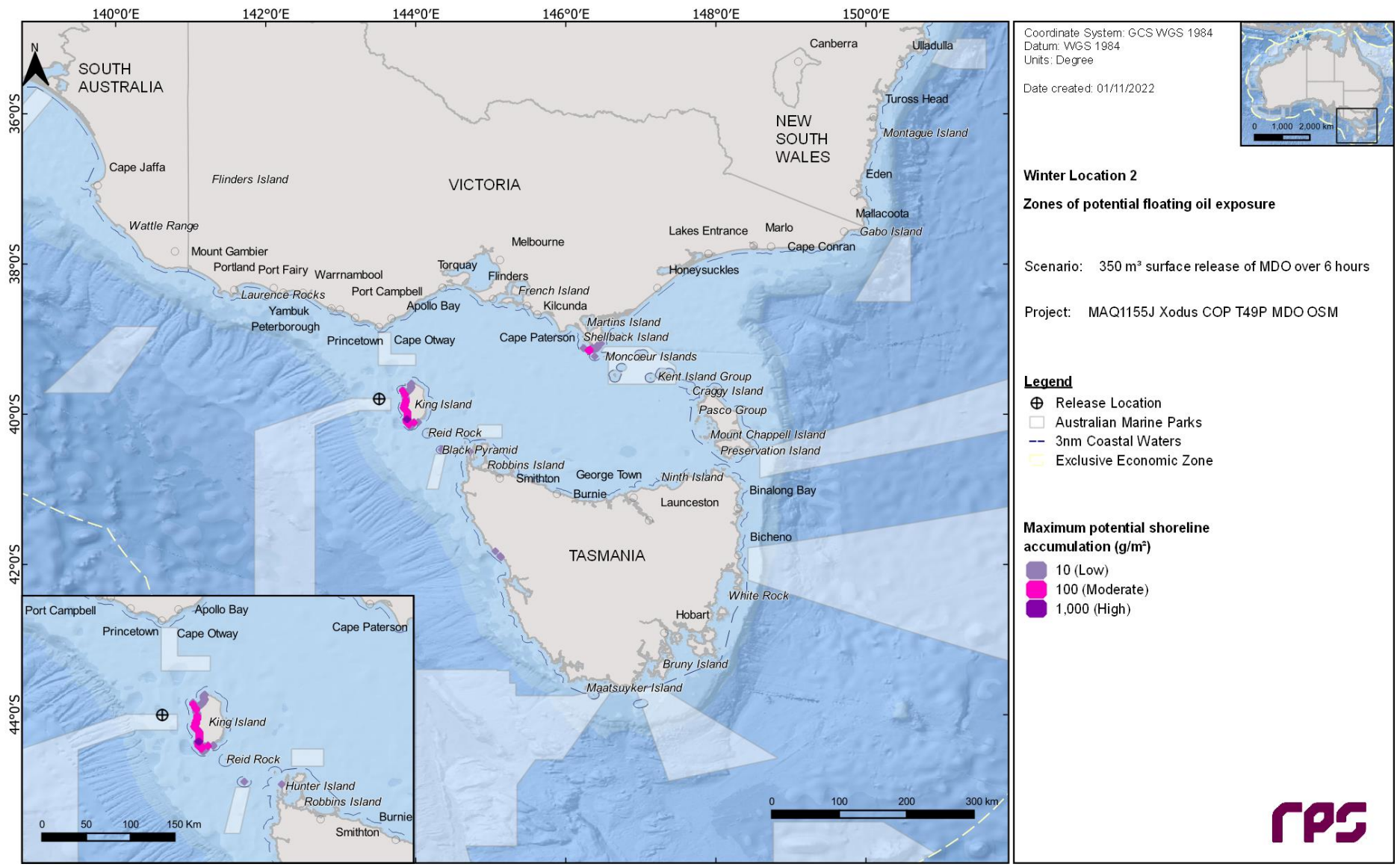


Figure 13.5 Maximum potential shoreline loading from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

13.2.3 In-water exposure

13.2.3.1 Dissolved Hydrocarbons

Table 13.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 13.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 13.6 and Figure 13.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 13.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	69	13	-
	Maximum distance (km) from release location (99th percentile)	54	13	-
	Direction	S	ESE	-
Winter	Maximum distance (km) from release location	89	3	-
	Maximum distance (km) from release location (99th percentile)	69	3	-
	Direction	ENE	ENE	-

Table 13.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Zeehan	124	59	10	-	100	60	11	-
IBRA	King Island	13	1	-	-	18	4	-	-
IMCRA	Central Bass Strait	5	-	-	-	13	1	-	-
	Otway	124	59	10	-	100	60	11	-
KEF	West Tasmania Canyons	18	1	-	-	2	-	-	-
Near Shore Waters	King Island	13	1	-	-	18	4	-	-
State Waters	Tasmania	33	2	-	-	28	4	-	-

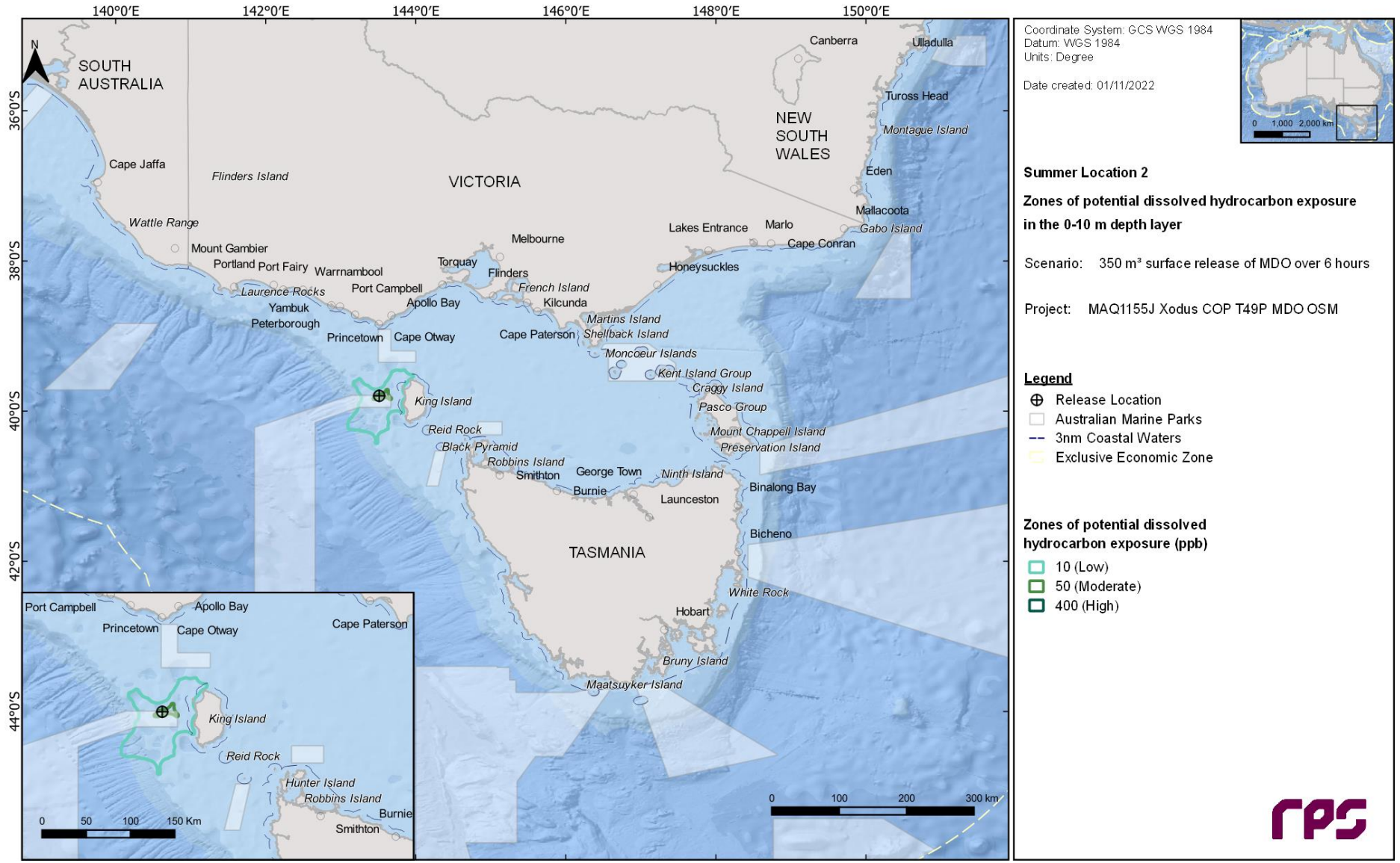


Figure 13.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

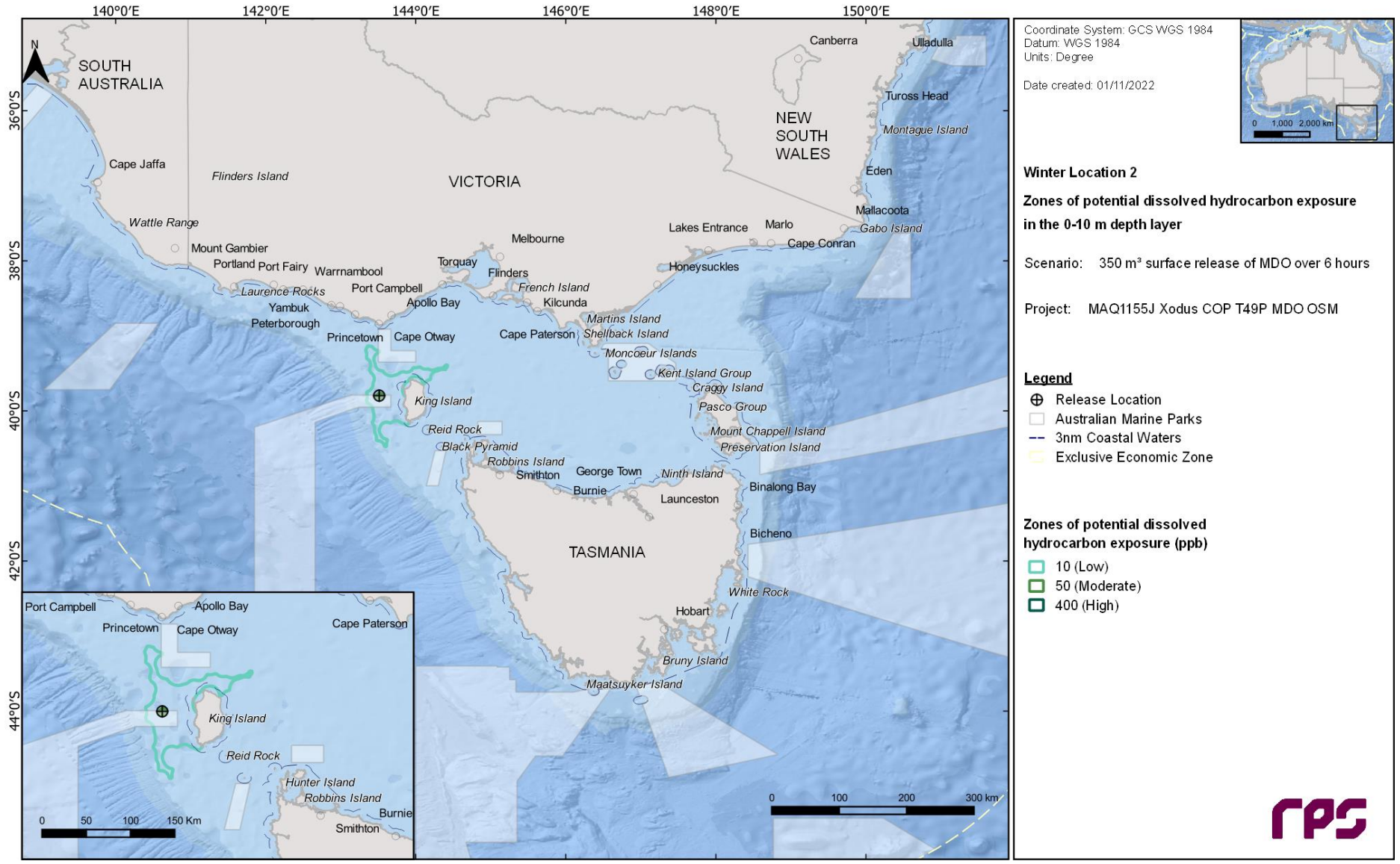


Figure 13.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

13.2.3.2 Entrained Hydrocarbons

Table 13.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 13.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 13.8 and Figure 13.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 13.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	352	86
	Maximum distance (km) from release location (99^{th} percentile)	319	80
	Direction	ENE	S
Winter	Maximum distance (km) from release location	356	150
	Maximum distance (km) from release location (99^{th} percentile)	321	117
	Direction	ENE	ENE

Table 13.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	62	9	-	249	8	1
	Beagle	22	1	-	31	4	-
	Boags	15	2	-	20	2	-
	Franklin	25	6	-	45	4	-
	Zeehan	9,750	98	92	7,673	96	92
IBRA	Flinders	3	-	-	18	3	-
	Gippsland Plain	6	-	-	15	1	-
	King Island	385	31	9	716	47	20
	Strzelecki Ranges	5	-	-	13	1	-
	Tasmanian West	11	1	-	17	2	-
	Wilsons Promontory	38	2	-	71	5	-
IMCRA	Boags	11	2	-	18	2	-
	Central Bass Strait	330	12	2	476	23	6
	Central Victoria	35	1	-	51	3	-
	Flinders	42	2	-	71	6	-
	Franklin	21	4	-	45	4	-
	Otway	9,750	98	92	7,673	96	92
	Twofold Shelf	14	1	-	18	3	-
KEF	West Tasmania Canyons	476	24	5	212	5	2
MNP	Wilsons Promontory	32	2	-	71	4	-
NPS4	Wilsons Promontory Marine Reserve	37	1	-	20	3	-
Ramsar	Lavinia	19	1	-	27	2	-
RSB	Bell Reef	47	7	-	35	10	-
	Cody Bank	8	-	-	11	1	-
	Cutter Rock	6	-	-	19	2	-
Nearshore Waters	Albatross Island	12	1	-	14	2	-
	Anser Island	13	1	-	71	2	-
	Black Pyramid	21	3	-	30	4	-
	Curtis Island	3	-	-	13	3	-
	Glennie Group	38	2	-	41	3	-
	Hogan Island Group	3	-	-	18	2	-
	Hunter Island	9	-	-	12	1	-
	Kanowna Island	16	1	-	71	4	-
	King Island	386	31	9	716	47	20
	Moncoeur Islands	26	1	-	16	3	-
	Norman Island	20	1	-	9	-	-
	Reid Rock	62	8	-	125	12	1

	Rodondo Island	26	1	-	21	4	-
	Skull Rock	16	1	-	70	5	-
	South Gippsland	9	-	-	56	2	-
	West Coast	11	1	-	17	2	-
State Waters	Tasmania	621	40	15	786	49	25
	Victoria	42	2	-	71	6	-

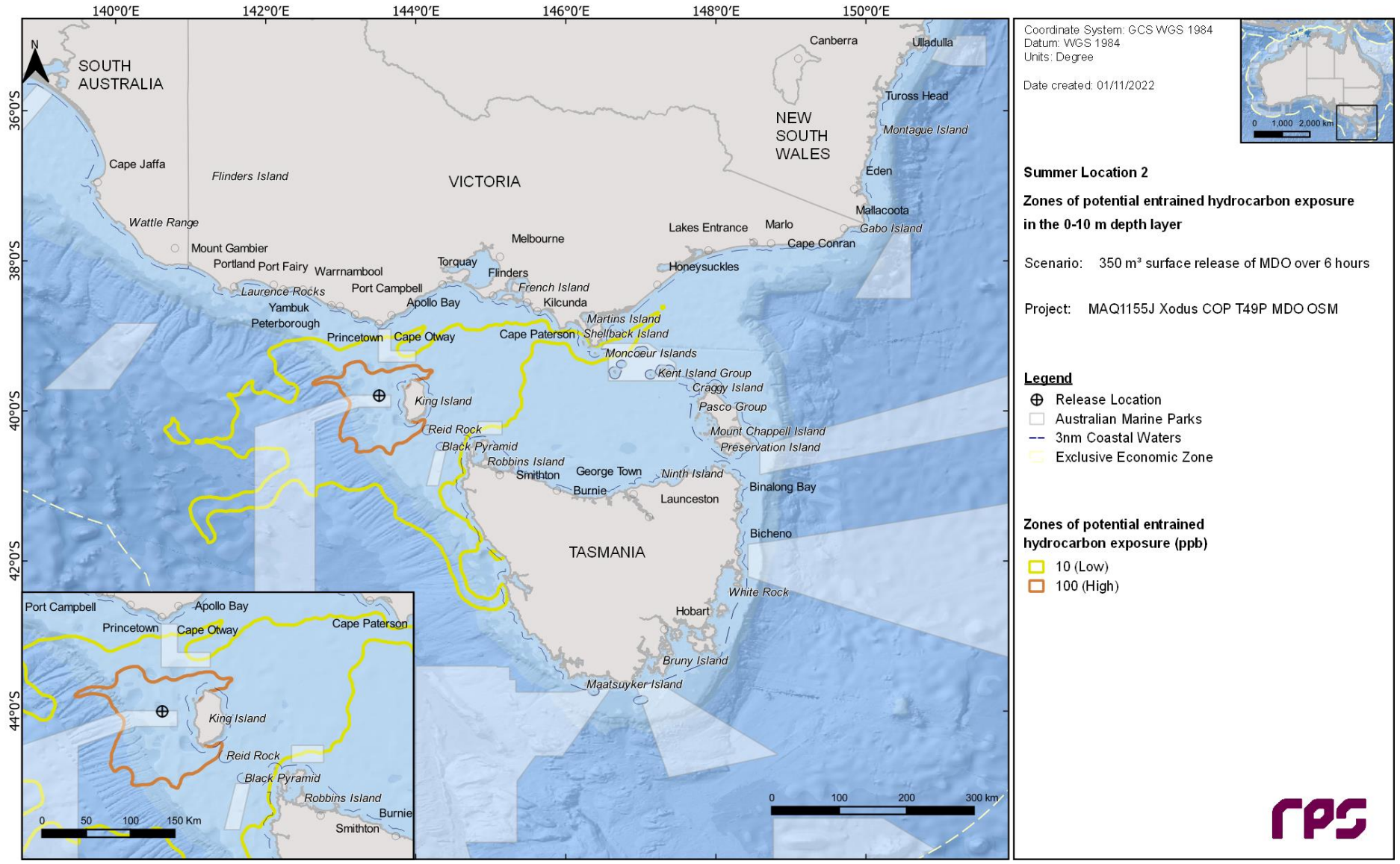


Figure 13.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

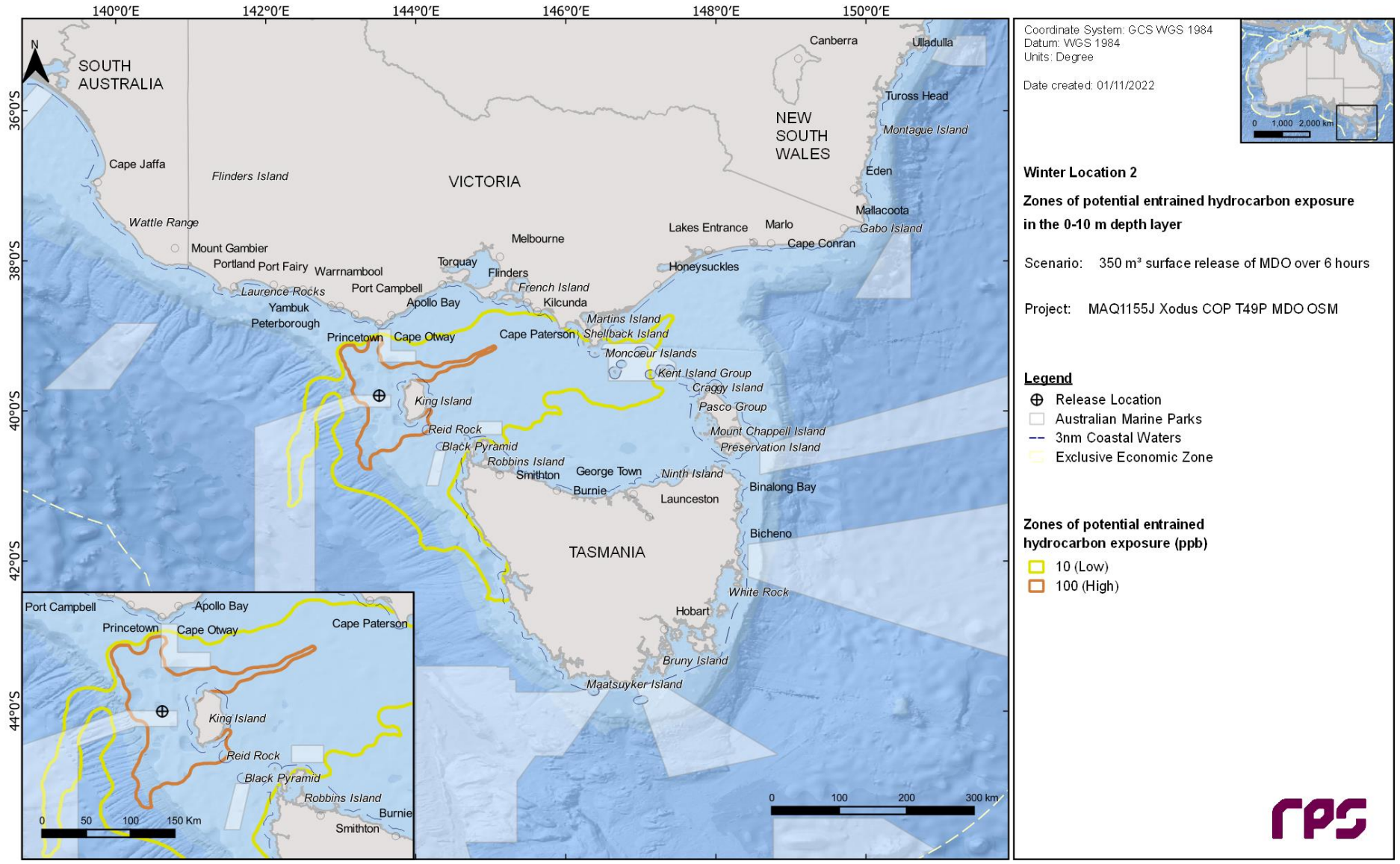


Figure 13.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

13.3 Deterministic Analysis

13.3.1 Largest Volume of Hydrocarbons Ashore & Minimum time to Shoreline Accumulation

The simulation that resulted in the largest volume of hydrocarbons ashore of 47.4 m^3 and minimum time to hydrocarbons ashore of 1.50 days was identified as run number 15 and commenced during winter conditions, 2 am 5th September 2012.

Figure 13.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred 1 day and 6 hours into the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 30 days are presented in Figure 13.11 and Figure 13.12, respectively.

Figure 13.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 178 m^3 (~51%) was lost to the atmosphere through evaporation. Approximately, 88 m^3 (~25%) of the released volume decayed, while approximately 43 m^3 (~12%) was predicted to remain within the water column and approximately 44 m^3 (~12.5%) was present on the shorelines.

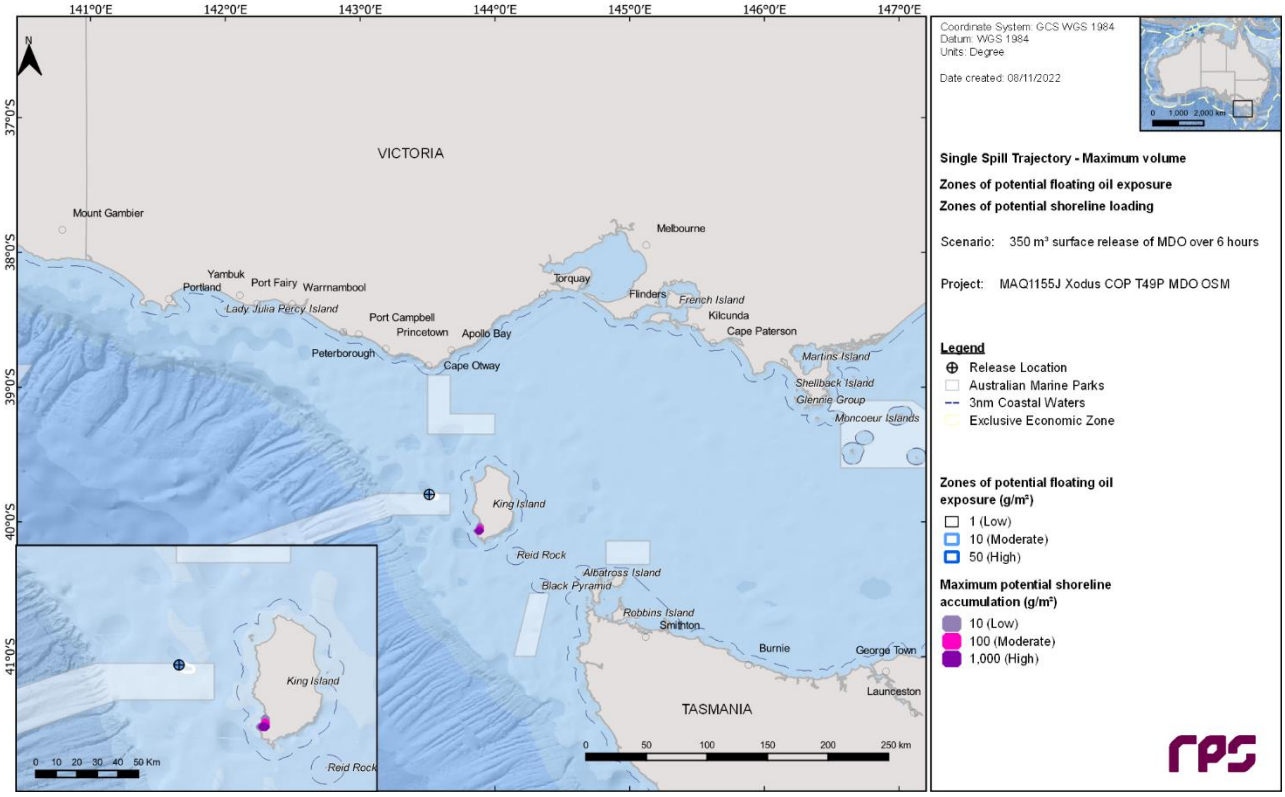


Figure 13.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

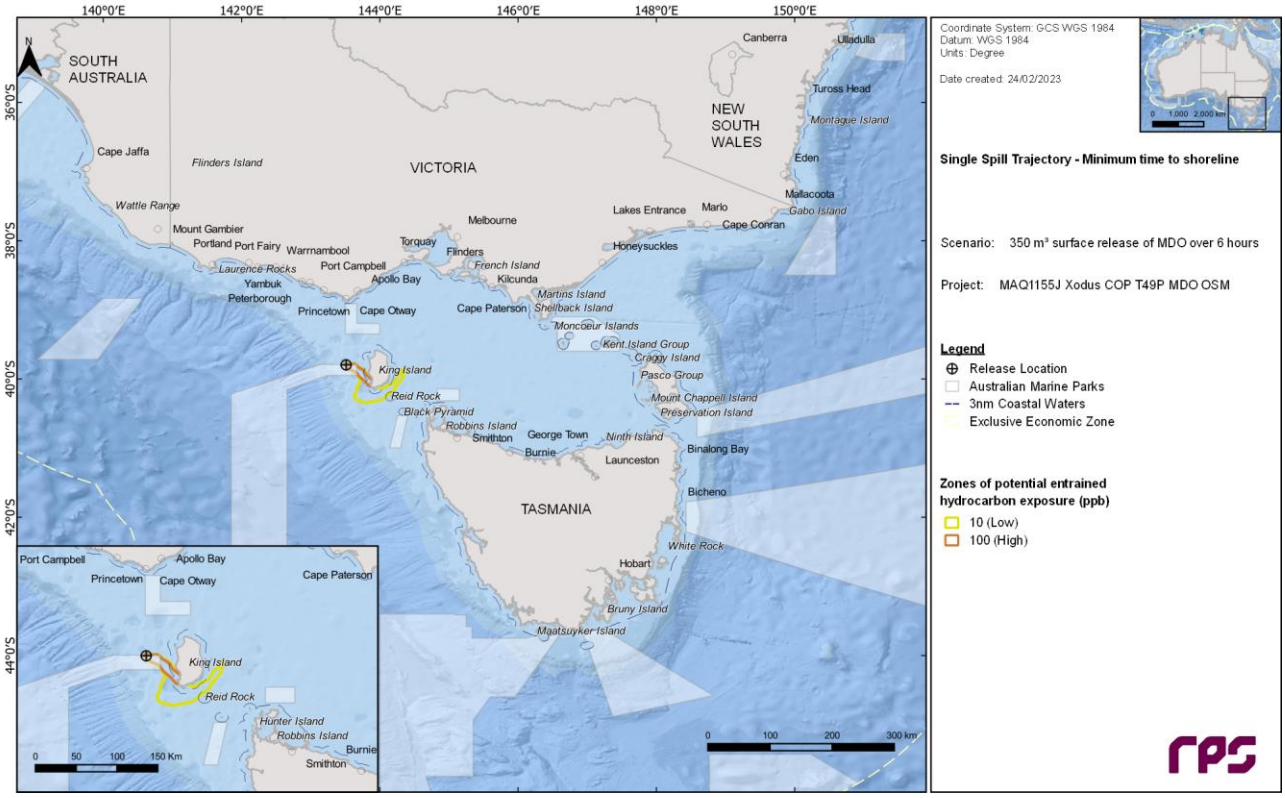


Figure 13.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

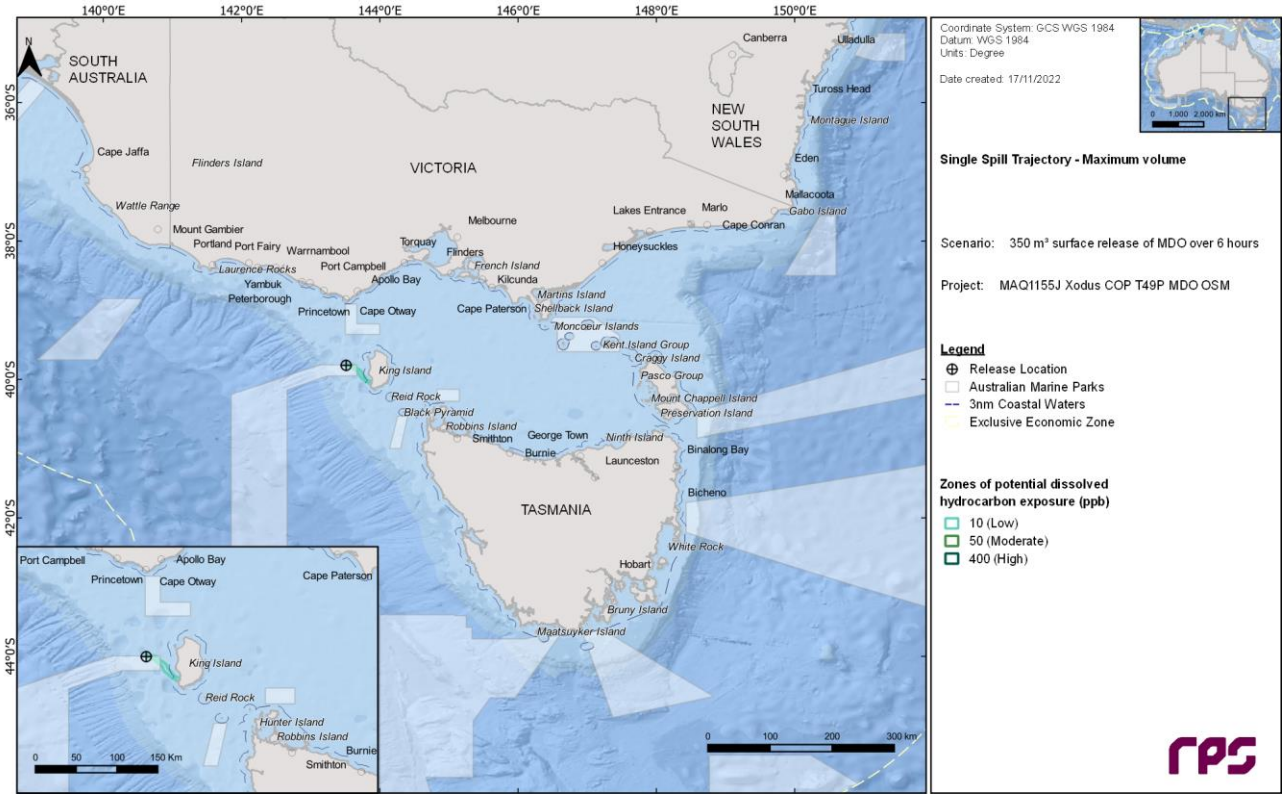


Figure 13.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

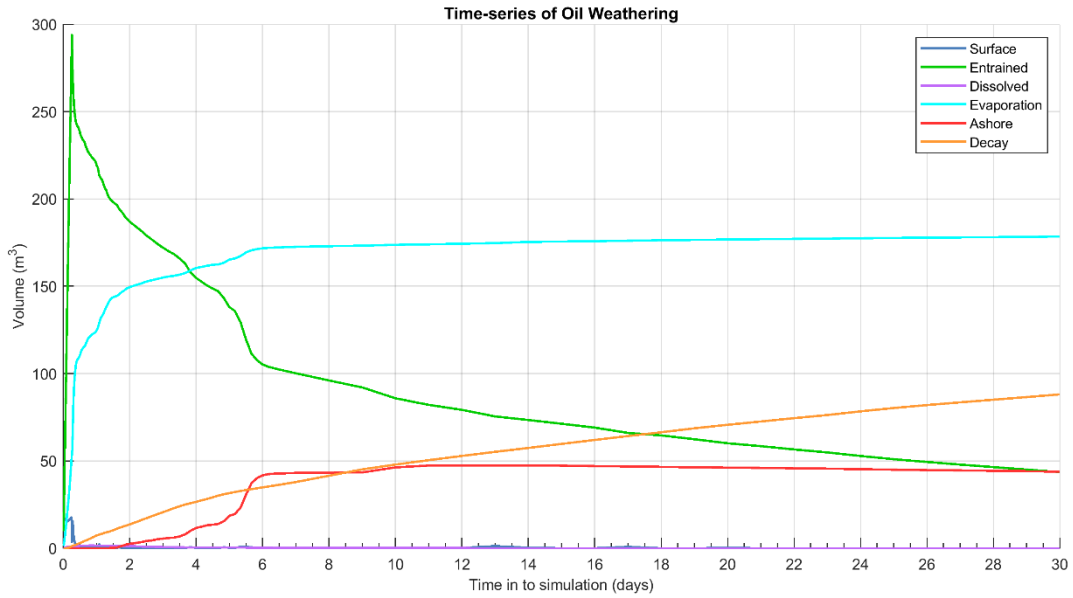


Figure 13.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

13.3.2 Longest Length of Shoreline Accumulation

The simulation that resulted in the longest length of hydrocarbons ashore of 35.2 km was identified as run number 95 which commenced during winter conditions, 7 am 16th July 2010.

Figure 13.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 3 of the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 13.15 and Figure 13.16, respectively.

Figure 13.17 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 180 m^3 (~51%) was lost to the atmosphere through evaporation. Approximately, 95 m^3 (~28%) of the released volume decayed, while approximately 70 m^3 (~19%) was predicted to remain within the water column and approximately 10 m^3 (3%) remained on shorelines.

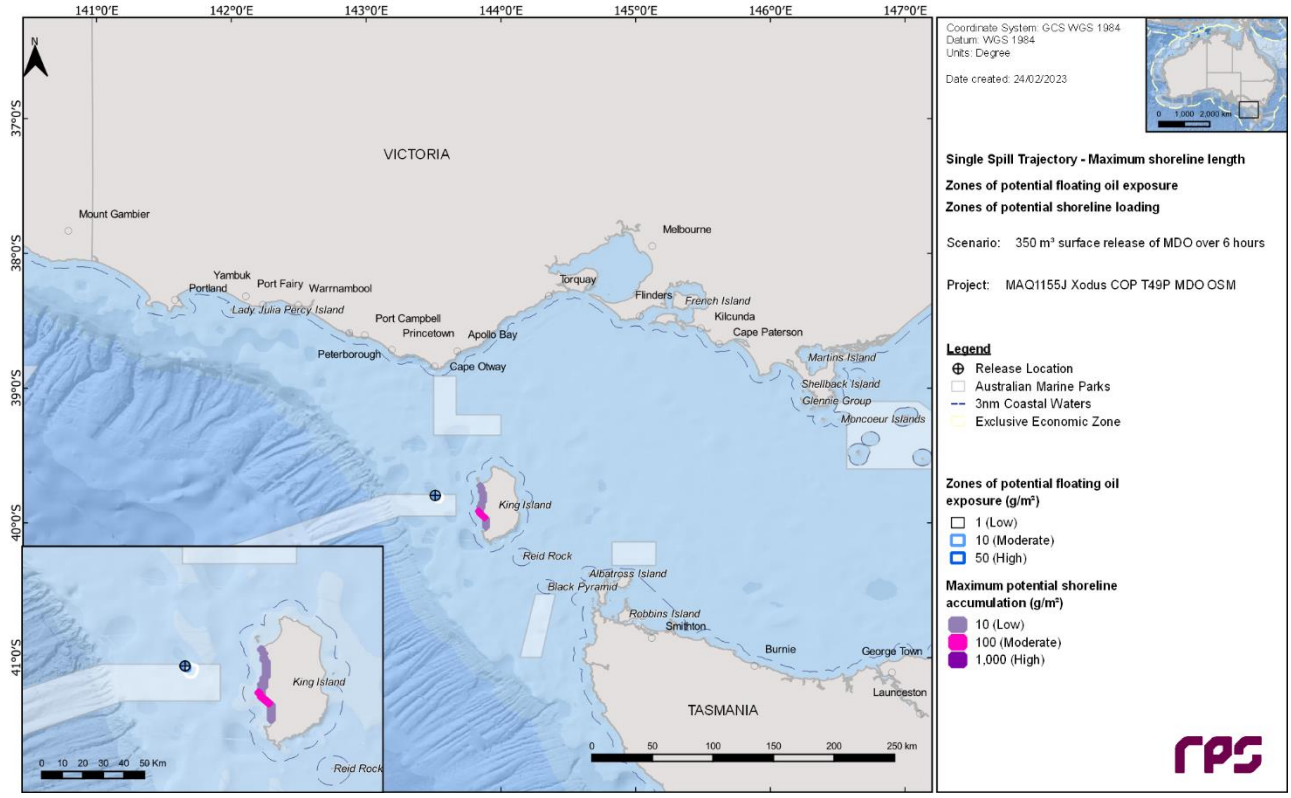


Figure 13.14 Predicted extent of the floating hydrocarbon exposure and shoreline loading over the entire 30 days for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

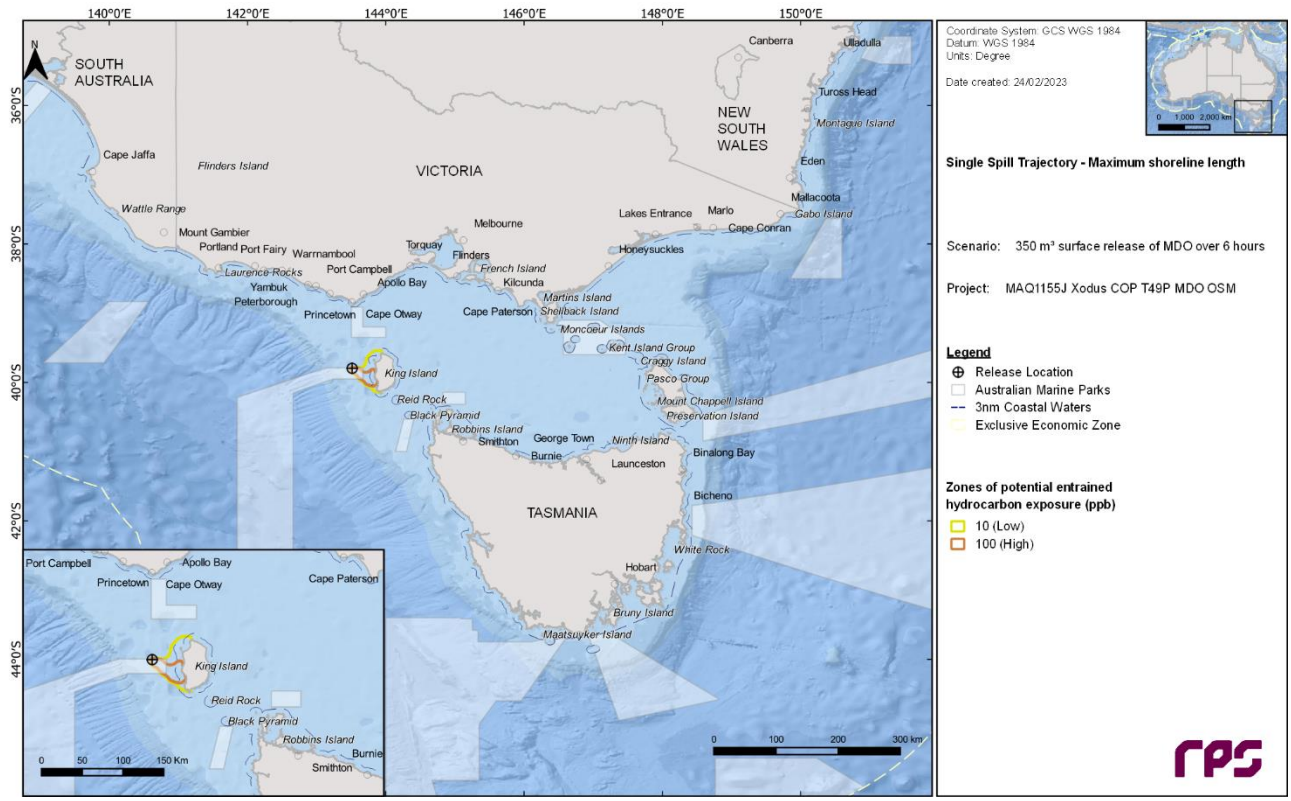


Figure 13.15 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

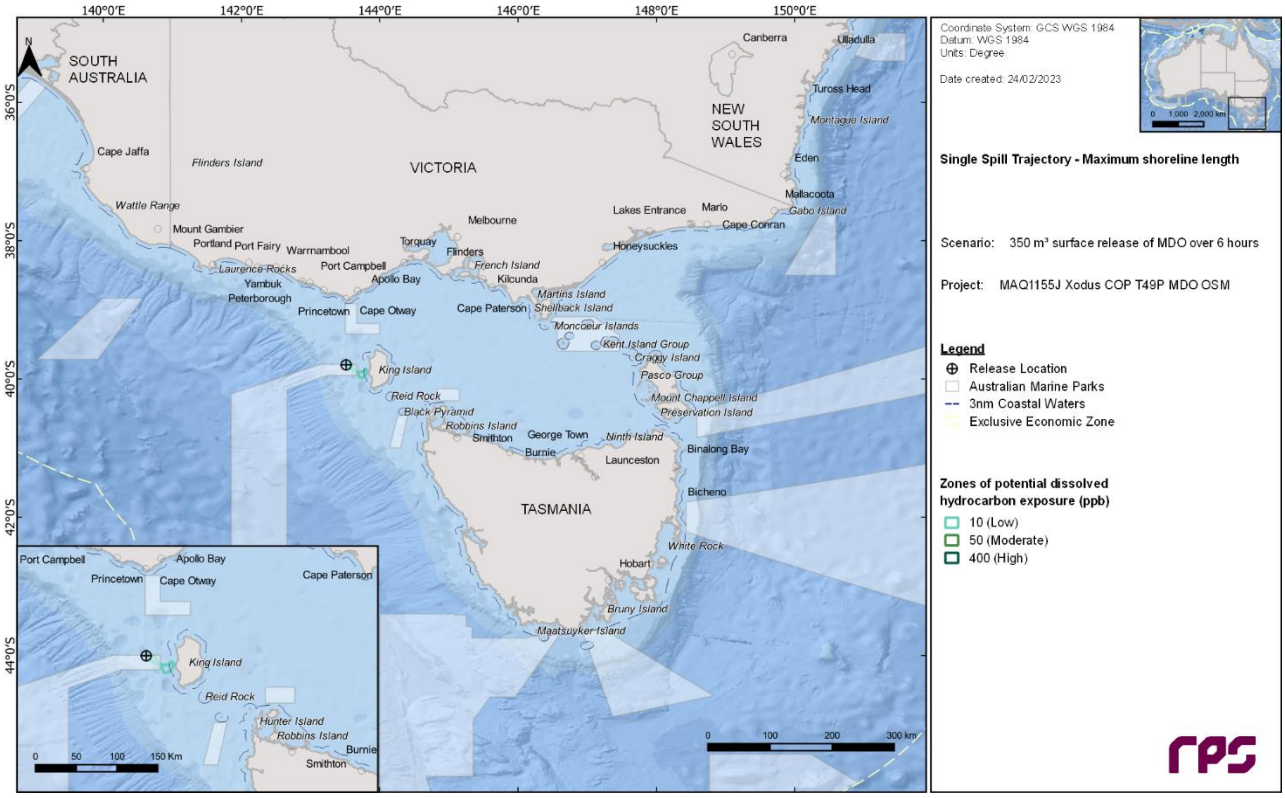


Figure 13.16 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

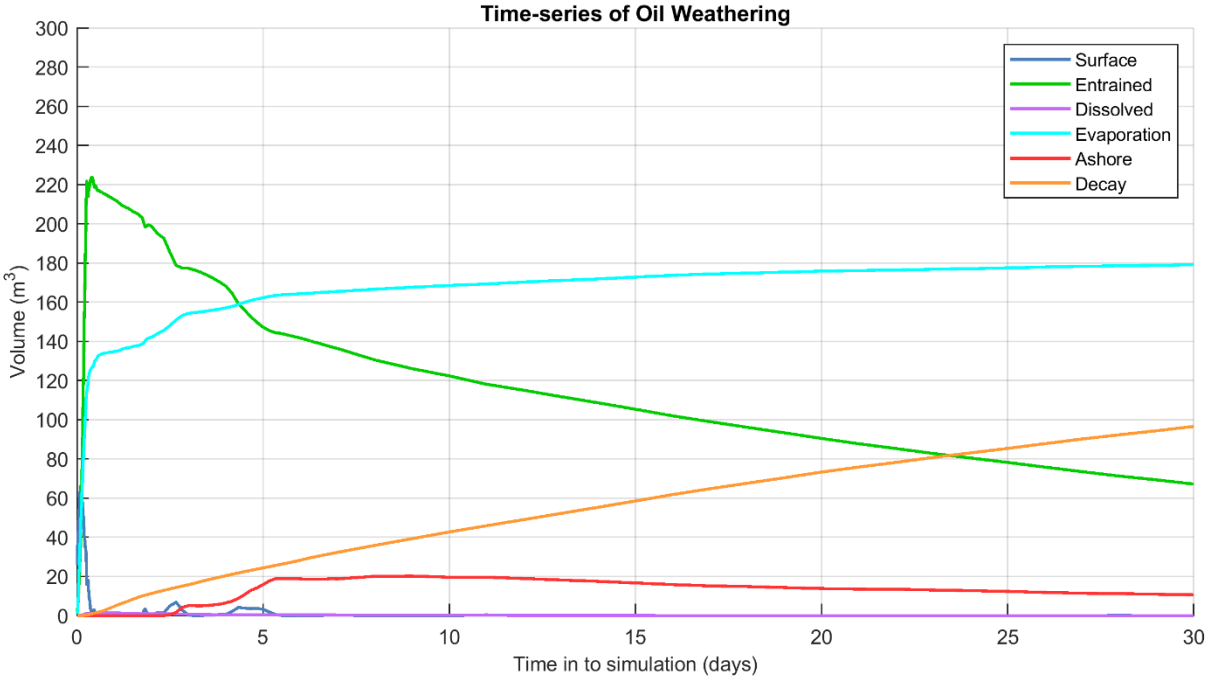


Figure 13.17 Predicted weathering and fates for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

14 LOCATION 3 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 3. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 30 days.

Section 14.1 presents the low threshold EMBA, Section 14.2 shows the seasonal (or stochastic) analysis results, while Section 14.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

14.1 EMBA

Figure 14.1 shows the EMBA for Location 3. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

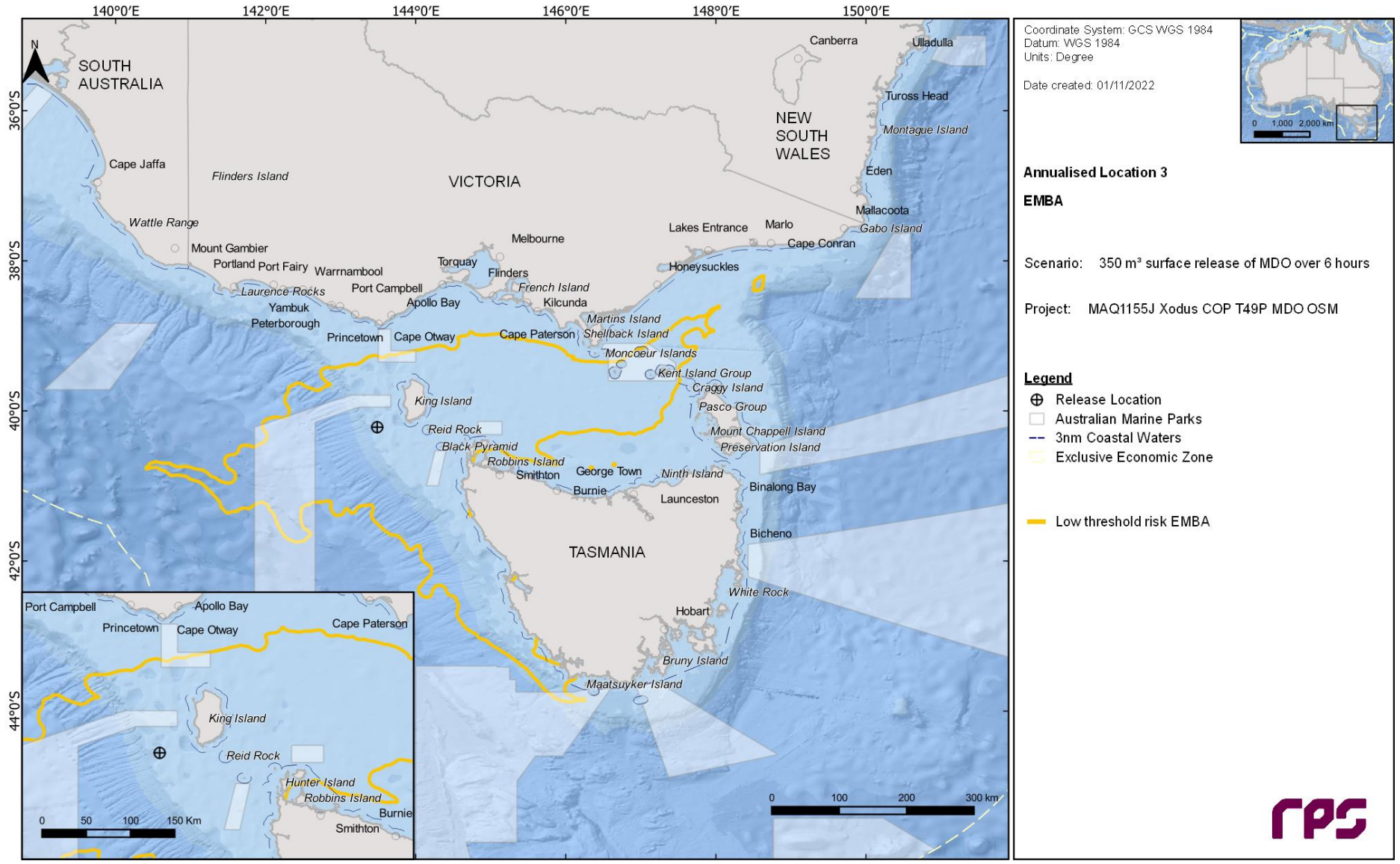


Figure 14.1 Predicted low threshold EMBA from a vessel collision at Location 3. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

14.2 Stochastic Analysis

14.2.1 Floating Oil Exposure

Table 14.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 14.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 14.2 to Figure 14.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 170.6 km^2 and 158.7 km^2, respectively.

Table 14.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	40.5	15.8	4.7
	Maximum distance (km) from release location (99^{th} percentile)	35	14.7	4.7
	Direction	SSE	SSE	N
Winter	Maximum distance (km) from release location	60.0	28.3	4.4
	Maximum distance (km) from release location (99^{th} percentile)	56.8	26.9	4.4
	Direction	SSE	S	SSE

Table 14.2 Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 3 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
IMCRA	Otway	100	100	24	0.04	0.04	0.04	100	100	14	0.04	0.04	0.04
KEF	Bonney Coast Upwelling	1	-	-	1.46	-	-	1	-	-	1.33	-	-

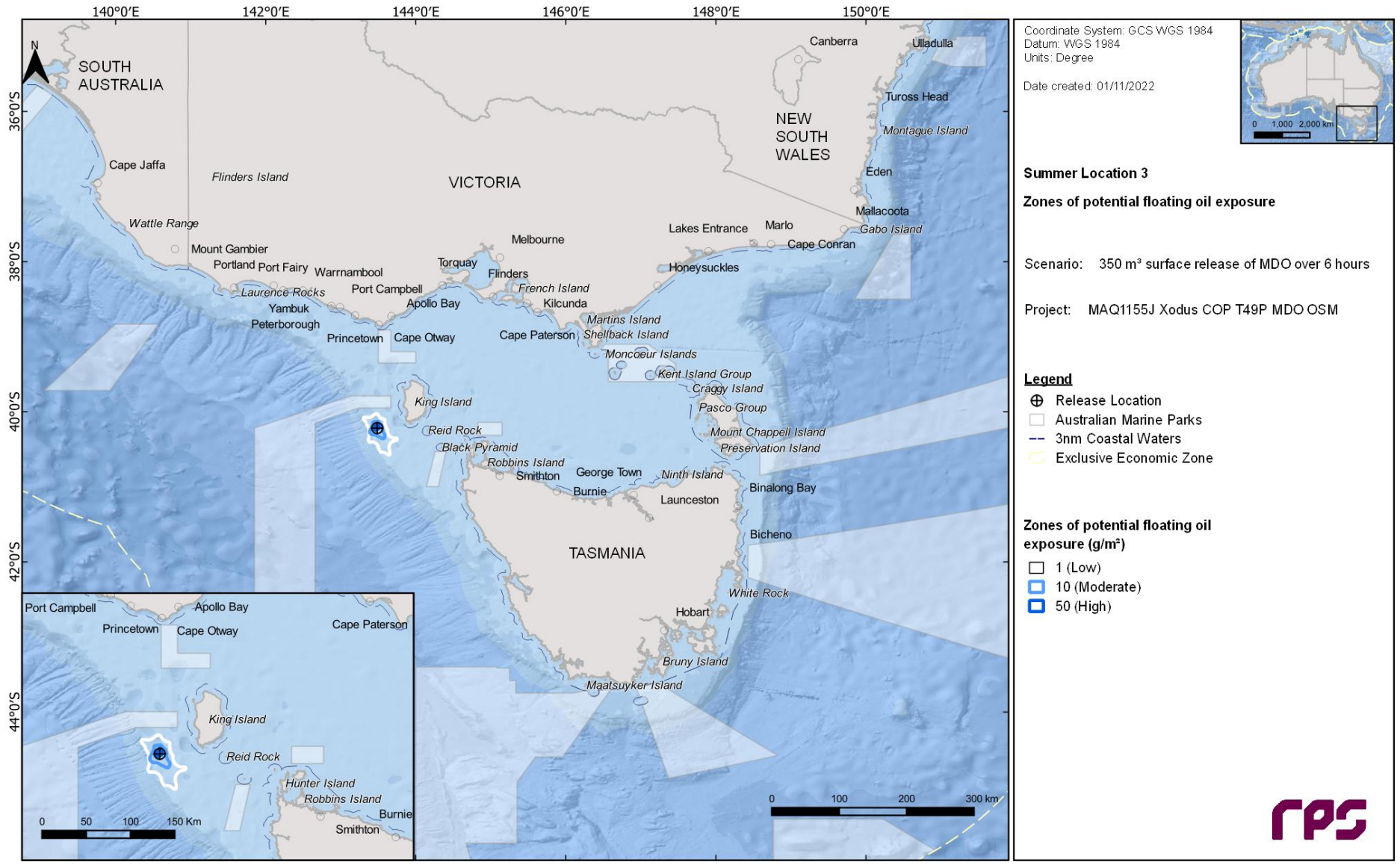


Figure 14.2 Zones of potential floating oil exposure from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

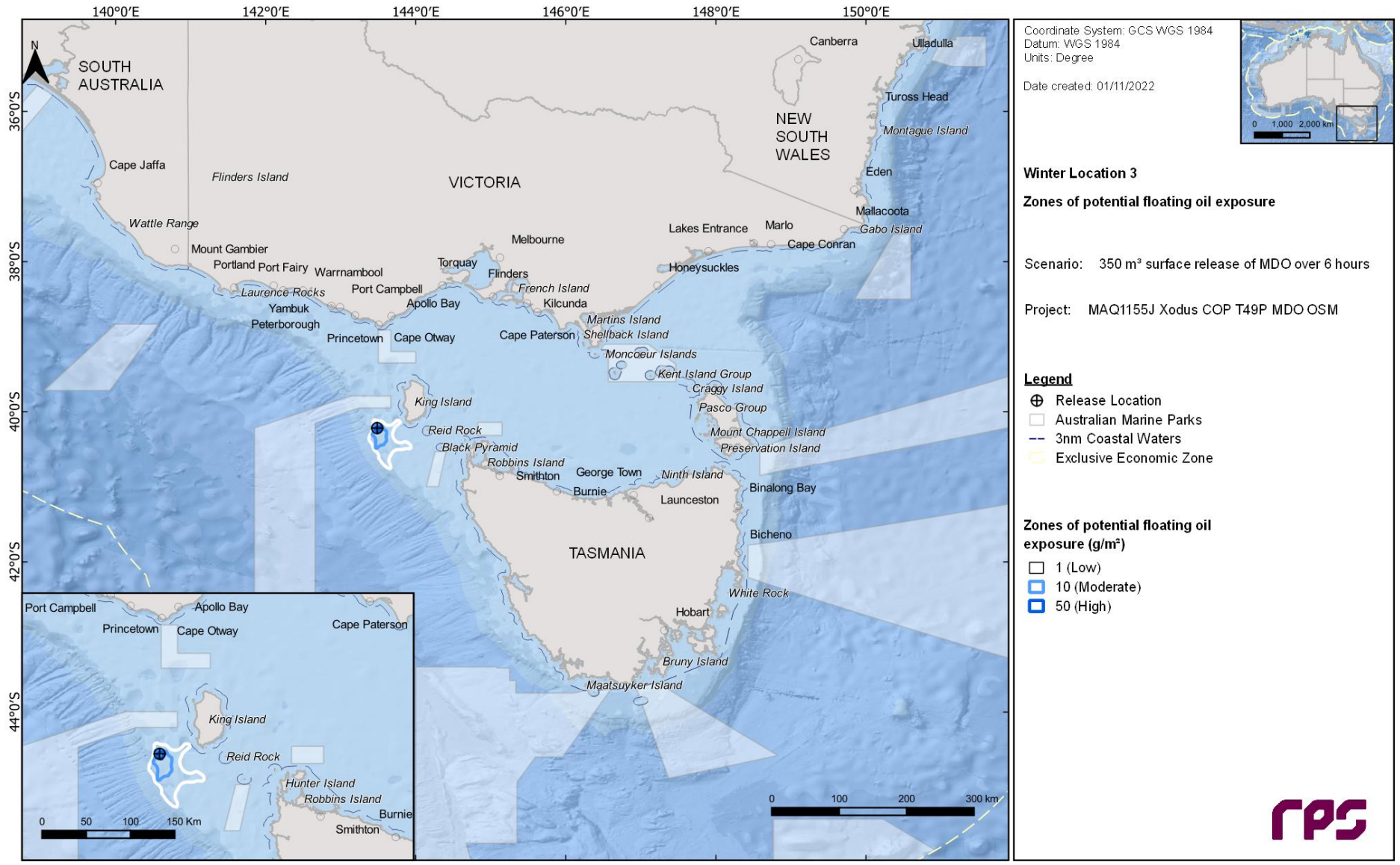


Figure 14.3 Zones of potential floating oil exposure from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

14.2.2 Shoreline Accumulation

Table 14.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 14.4 and Table 14.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 14.4 and Figure 14.5.

Table 14.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 3 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	26	33
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	2.96	2.29
Maximum volume of hydrocarbons ashore (m^3)	7.3	28.8
Average volume of hydrocarbons ashore (m^3)	2.1	3
Maximum length of the shoreline at **10 g/m^2** (km)	24	20
Average shoreline length (km) at **10 g/m^2** (km)	5.1	5.1
Maximum length of the shoreline at **100 g/m^2** (km)	2	9
Average shoreline length (km) at **100 g/m^2** (km)	1.3	5
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 14.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 3 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Black Pyramid	2	-	-	8.08	-	-	13	15	< 0.1	0.2	1	-	-	1	-	-
Circular Head	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hunter Island	3	-	-	13.63	-	-	14	22	< 0.1	1	1.6	-	-	2.9	-	-
Huon Valley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kent Island Group	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
King Island	17	4	-	3.17	7.38	-	29	182	1.9	7.3	6.8	1.2	-	22.9	1.9	-
Reid Rock	3	-	-	2.96	-	-	16	26	< 0.1	0.4	1	-	-	1	-	-
West Coast	1	-	-	26.88	-	-	11	11	0.9	0.9	1	-	-	1	-	-

Table 14.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 3 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Black Pyramid	3	-	-	8.67	-	-	18	25	< 0.1	0.3	1	-	-	1	-	-
Circular Head	7	-	-	9	-	-	17	47	0.3	2.5	2.6	-	-	4.8	-	-
Hunter Island	5	-	-	11.25	-	-	13	15	0.1	0.9	2.1	-	-	2.9	-	-
Huon Valley	1	-	-	22.04	-	-	14	14	0.6	0.6	1	-	-	1	-	-
Kent Island Group	1	-	-	18.25	-	-	19	19	0.6	0.6	1	-	-	1	-	-
King Island	14	3	-	2.29	4.96	-	38	557	2.2	28.8	6.6	4.8	-	19.1	8.6	-
Reid Rock	8	-	-	4.04	-	-	20	59	0.1	1.4	2.2	-	-	2.9	-	-
West Coast	2	-	-	9.88	-	-	23	72	0.2	3.3	8.6	-	-	8.6	-	-

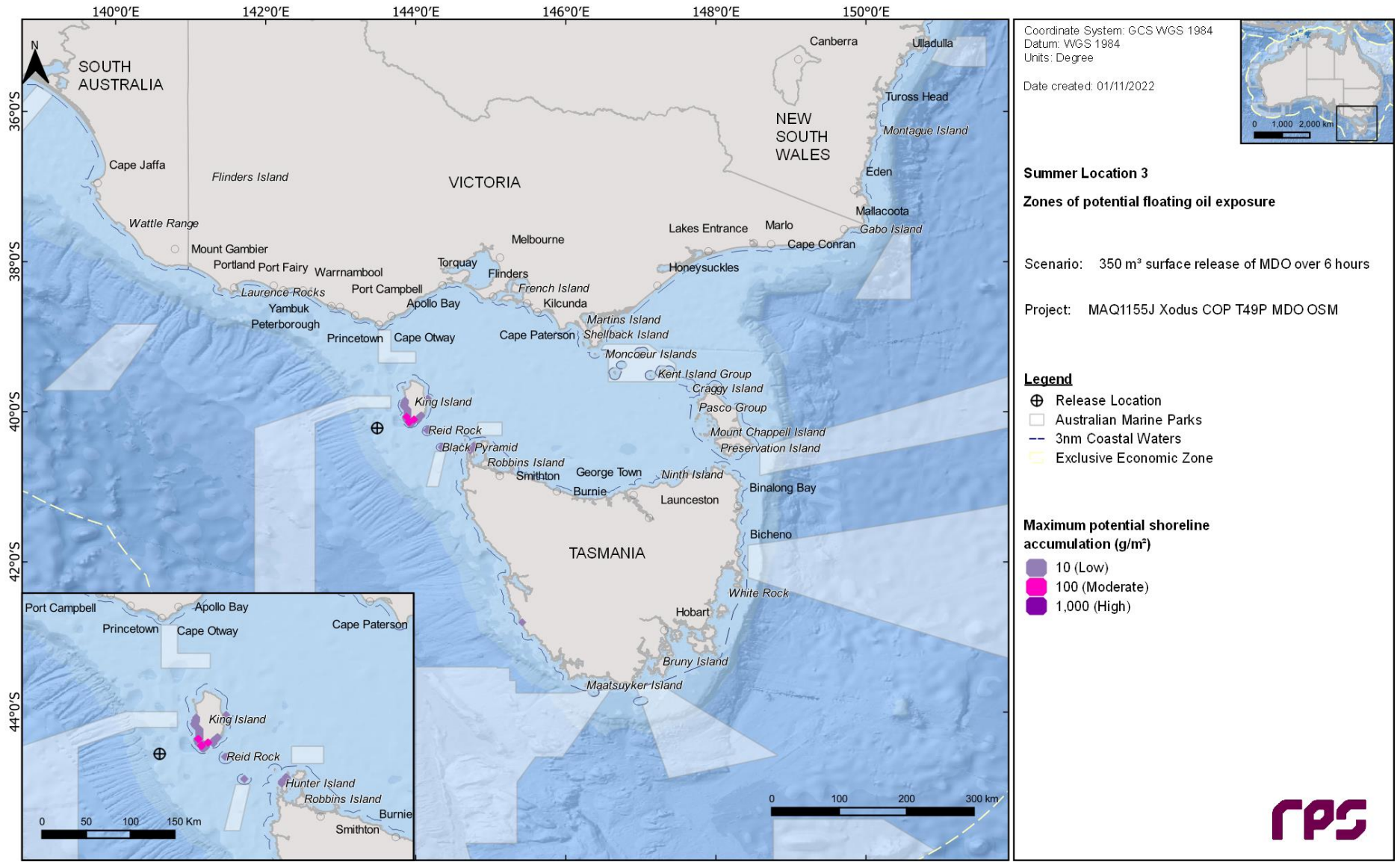


Figure 14.4 Maximum potential shoreline loading from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

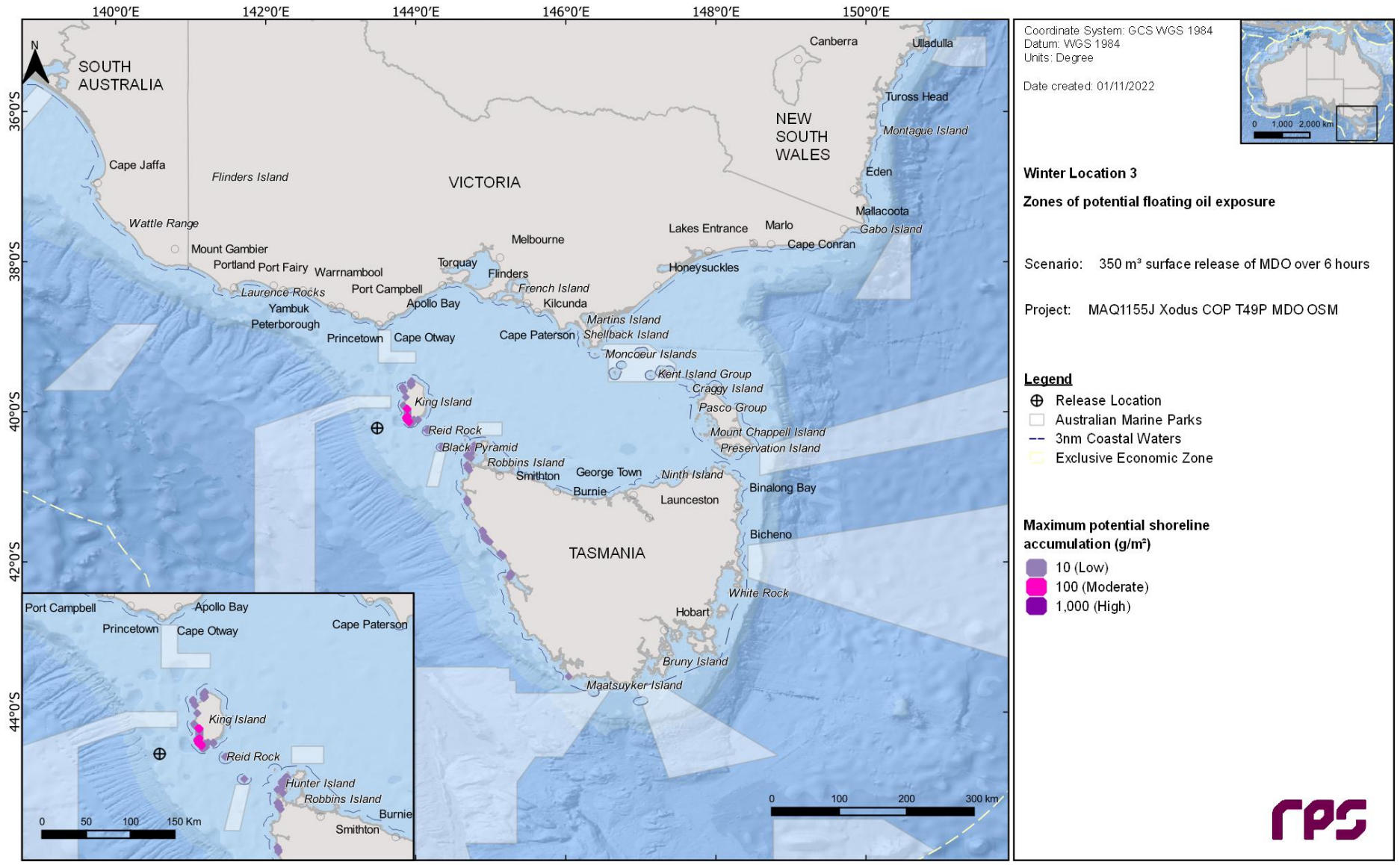


Figure 14.5 Maximum potential shoreline loading from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

14.2.3 In-water exposure

14.2.3.1 Dissolved Hydrocarbons

Table 14.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 14.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 14.6 and Figure 14.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 14.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	68	15	-
	Maximum distance (km) from release location (99th percentile)	58	15	-
	Direction	S	NNE	-
Winter	Maximum distance (km) from release location	94	7	-
	Maximum distance (km) from release location (99th percentile)	71	7	-
	Direction	E	SSW	-

Table 14.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Zeehan	20	1	-	-	8	-	-	-
IBRA	King Island	11	1	-	-	16	1	-	-
IMCRA	Central Bass Strait	7	-	-	-	13	1	-	-
	Otway	113	60	8	-	133	76	15	-
KEF	West Tasmania Canyons	51	6	1	-	22	1	-	-
Near Shore Waters	King Island	11	1	-	-	8	-	-	-
	Reid Rock	7	-	-	-	16	1	-	-
State Waters	Tasmania	21	1	-	-	27	1	-	-

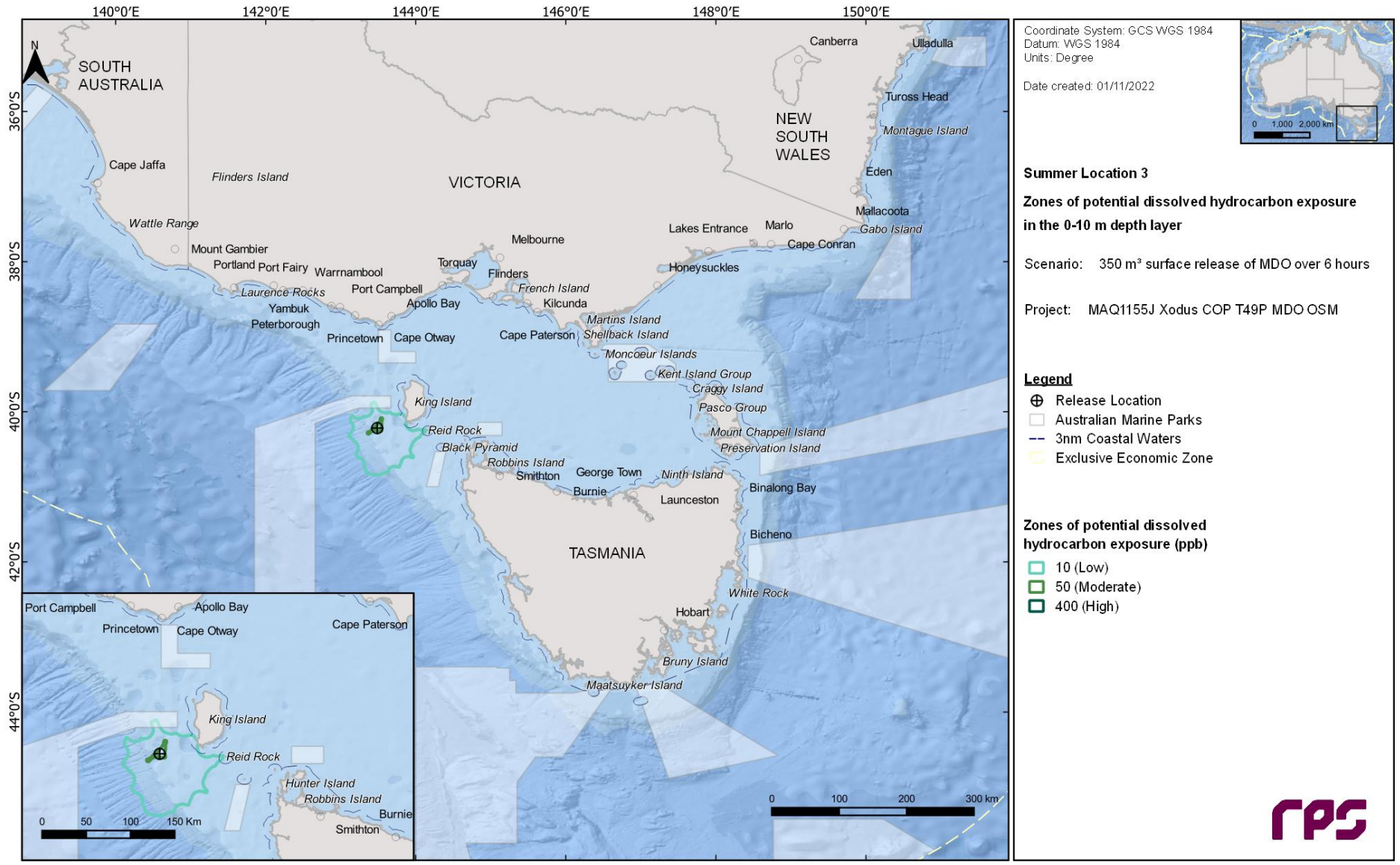


Figure 14.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

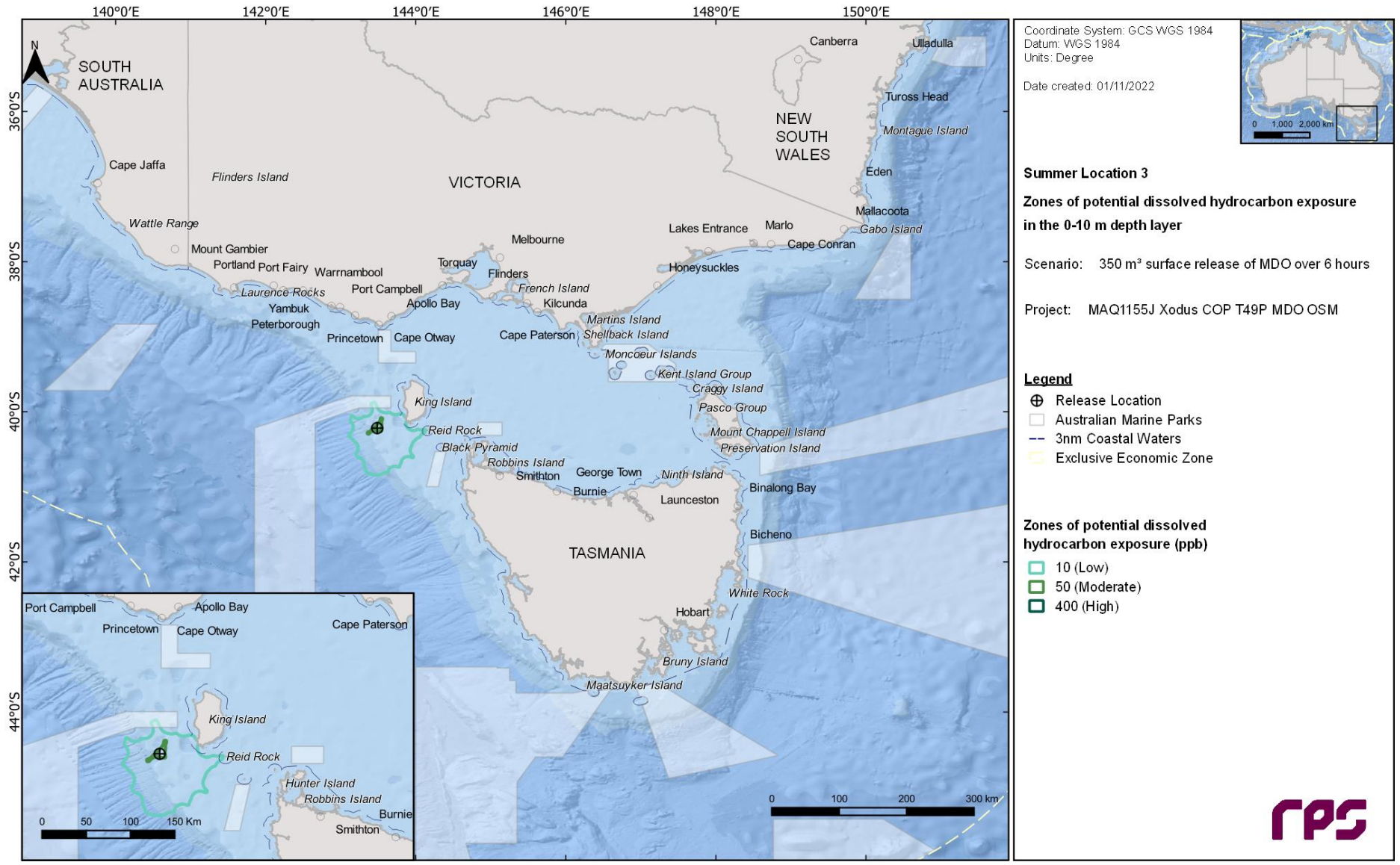


Figure 14.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

14.2.3.2 Entrained Hydrocarbons

Table 14.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 14.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 14.8 and Figure 14.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 14.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	374	130
	Maximum distance (km) from release location (99^{th} percentile)	348	109
	Direction	SSE	SSE
Winter	Maximum distance (km) from release location	497	157
	Maximum distance (km) from release location (99^{th} percentile)	411	131
	Direction	ENE	E

Table 14.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	12	1	-	31	2	-
	Beagle	9	-	-	20	3	-
	Boags	55	9	-	127	20	1
	Franklin	182	12	3	193	31	4
	Tasman Fracture	6	-	-	14	1	-
	Zeehan	779	10	3	338	7	1
IBRA	Flinders	8	-	-	19	3	-
	King Island	328	27	4	348	39	5
	Tasmanian West	22	2	-	29	2	-
IMCRA	Boags	74	9	-	127	17	2
	Central Bass Strait	120	21	2	224	44	6
	Davey	7	-	-	20	2	-
	Flinders	11	2	-	29	5	-
	Franklin	119	9	1	134	14	1
	Otway	8,934	99	98	11,532	98	95
	Twofold Shelf	8	-	-	17	3	-
KEF	Upwelling East of Eden	4	-	-	11	1	-
	West Tasmania Canyons	1,834	39	19	730	14	6
NP	Kent Group	8	-	-	16	3	-
Ramsar	Lavinia	22	4	-	8	-	-
RSB	Bell Reef	165	23	4	380	35	6
	Brown Rocks	16	2	-	30	7	-
	Wakitipu Rock	1	-	-	14	2	-
Nearshore Waters	Albatross Island	28	6	-	93	13	-
	Black Pyramid	157	13	1	182	29	1
	Circular Head	22	3	-	31	8	-
	Curtis Island	1	-	-	13	1	-
	Hogan Island Group	6	-	-	16	2	-
	Hunter Island	33	3	-	34	8	-
	Huon Valley	-	-	-	19	1	-
	Kent Island Group	8	-	-	16	3	-
	King Island	328	27	3	348	23	3
	Pyramid Island	3	-	-	19	2	-
	Reid Rock	145	25	5	272	39	6
	Three Hummock Island	15	1	-	18	4	-
	West Coast	22	2	-	29	2	-
State Waters	Tasmania	367	32	7	463	41	12

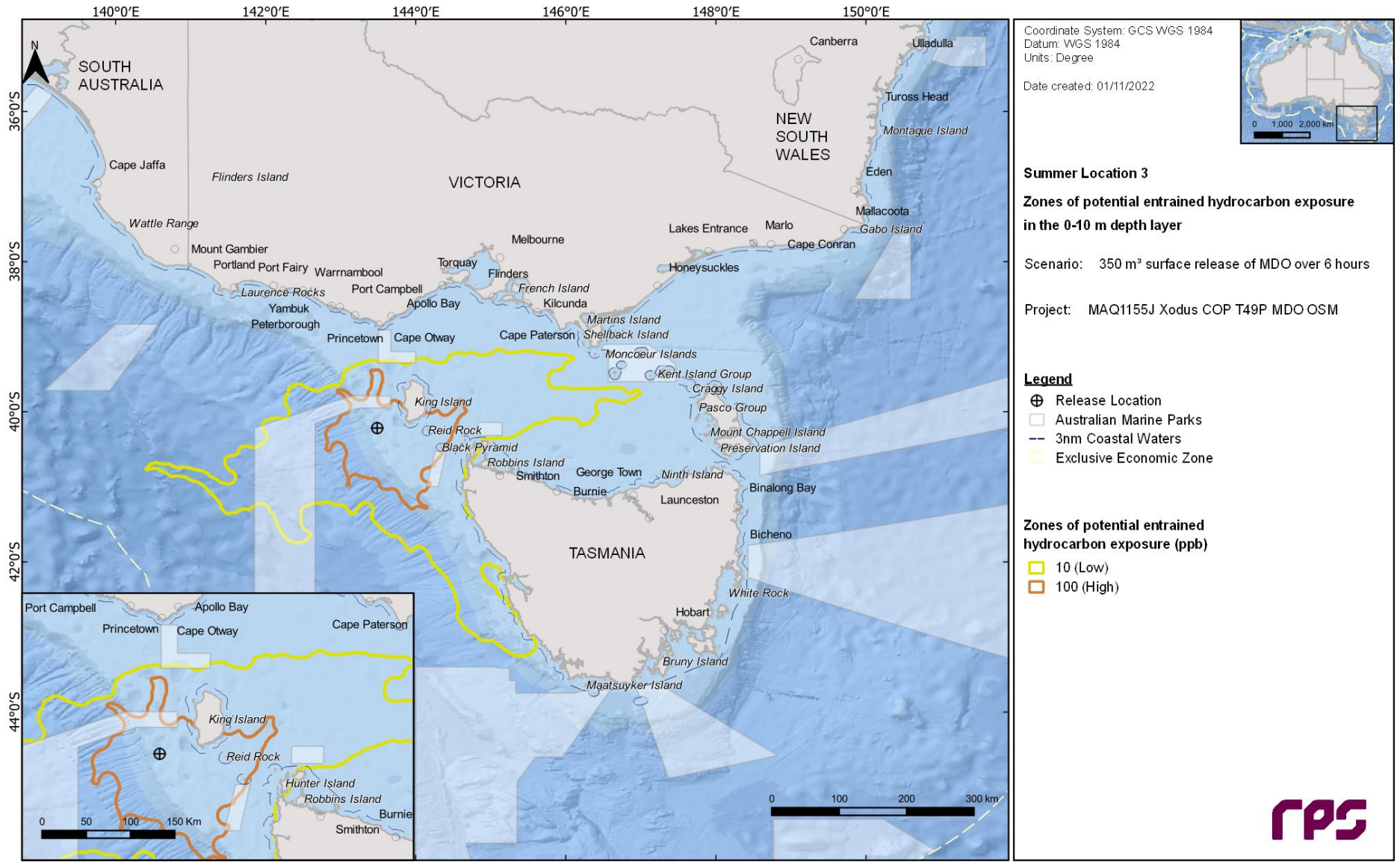


Figure 14.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

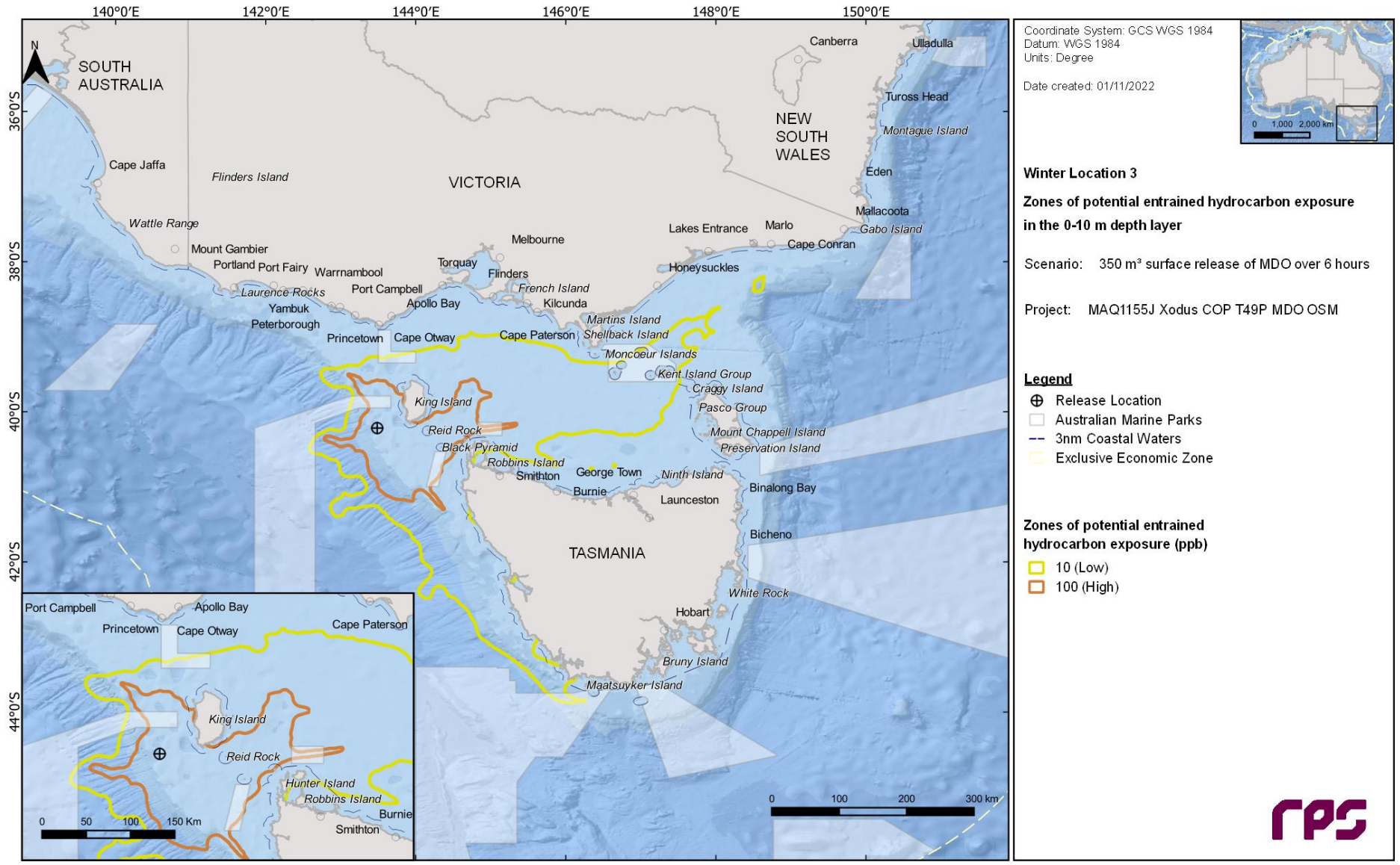


Figure 14.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

14.3 Deterministic Analysis

14.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of oil ashore was identified as run number 83 and commenced during winter conditions, 9 pm 20th August 2013.

Figure 14.10presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 2.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 30 days are presented in Figure 14.11 and Figure 14.12, respectively.

Figure 14.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 156 m^3 (~45%) was lost to the atmosphere through evaporation. Approximately, 110 m^3 (~31%) of the released volume decayed, while approximately 66 m^3 (~19%) was predicted to remain within the water column and approximately 18 m^3 (~5%) was present on the shorelines.

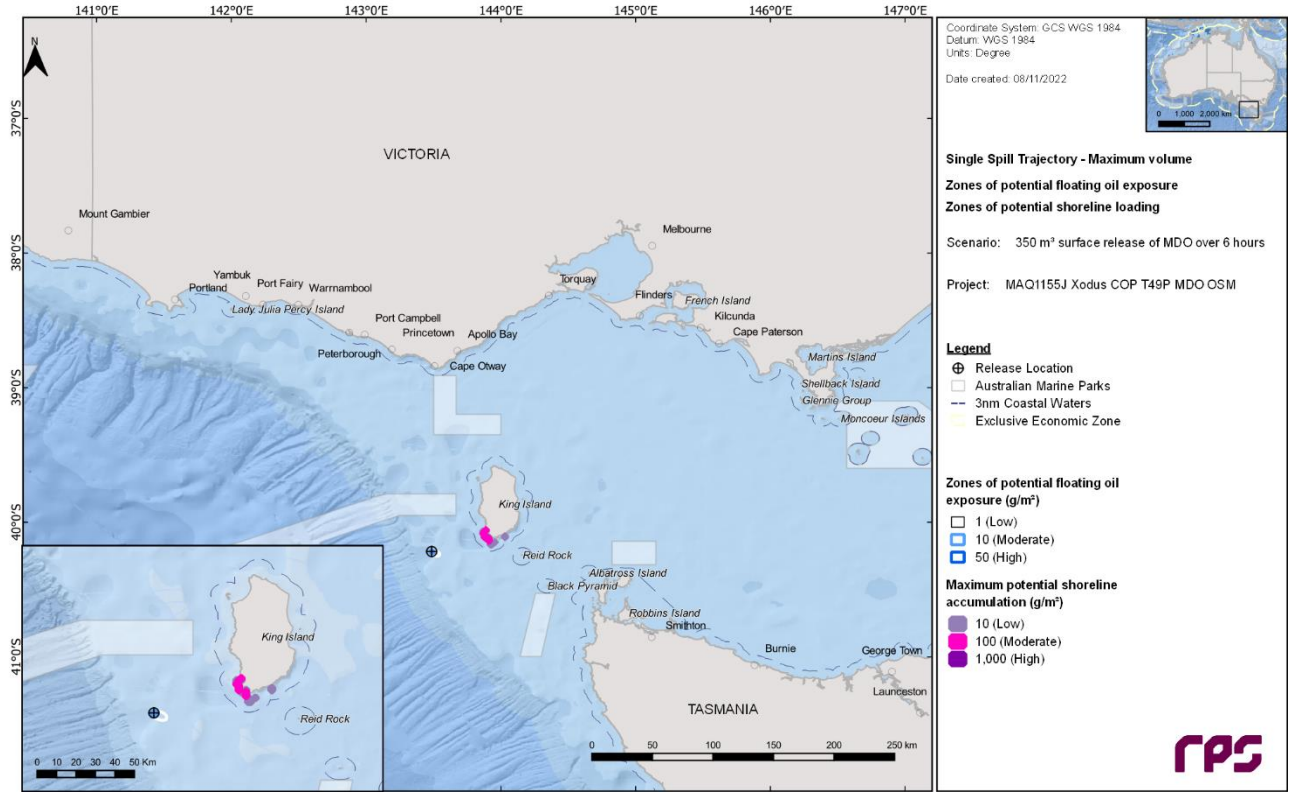


Figure 14.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

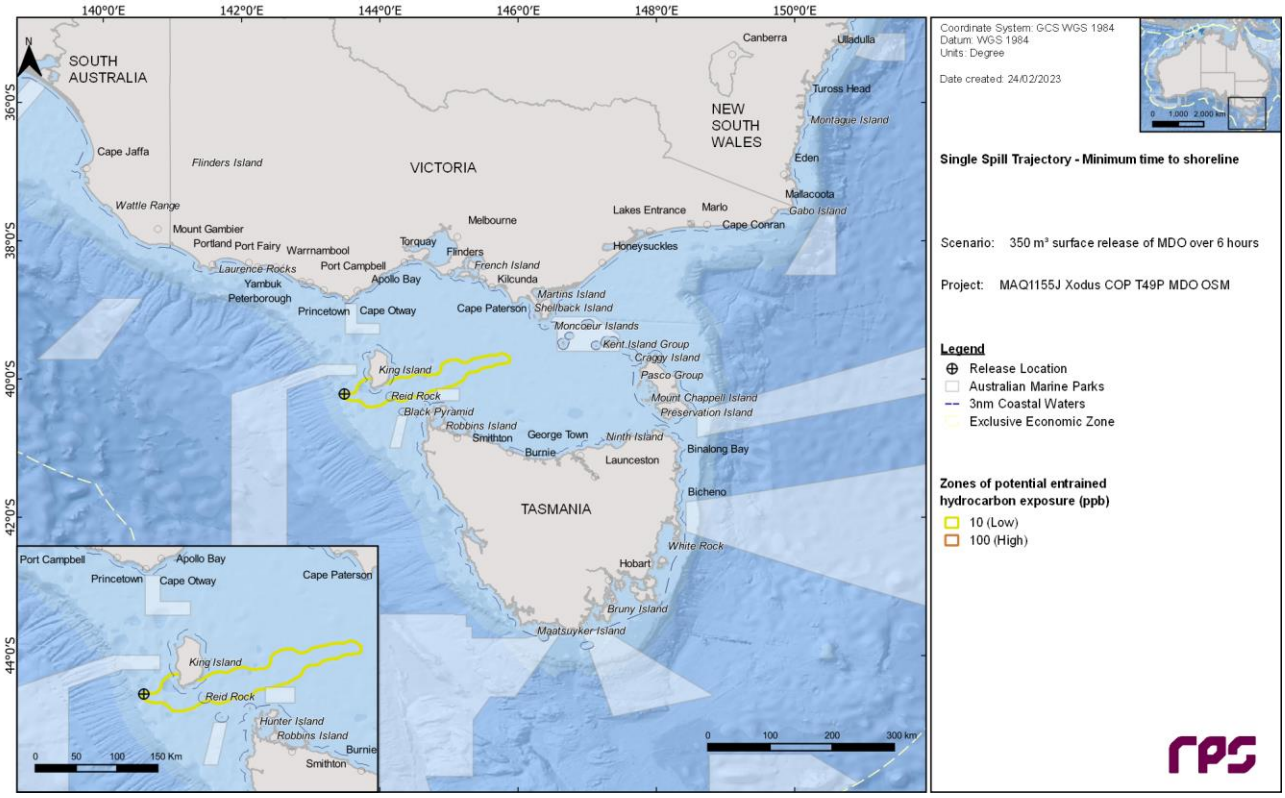


Figure 14.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

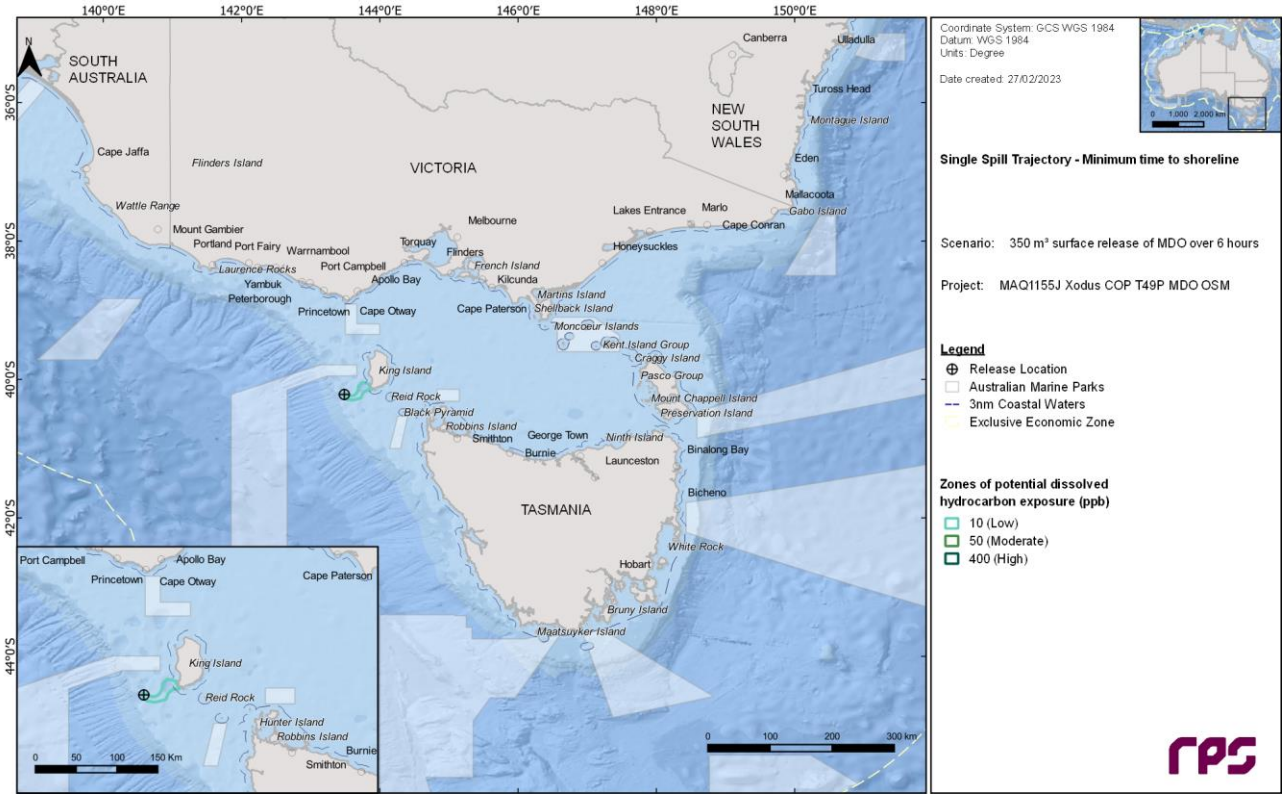


Figure 14.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

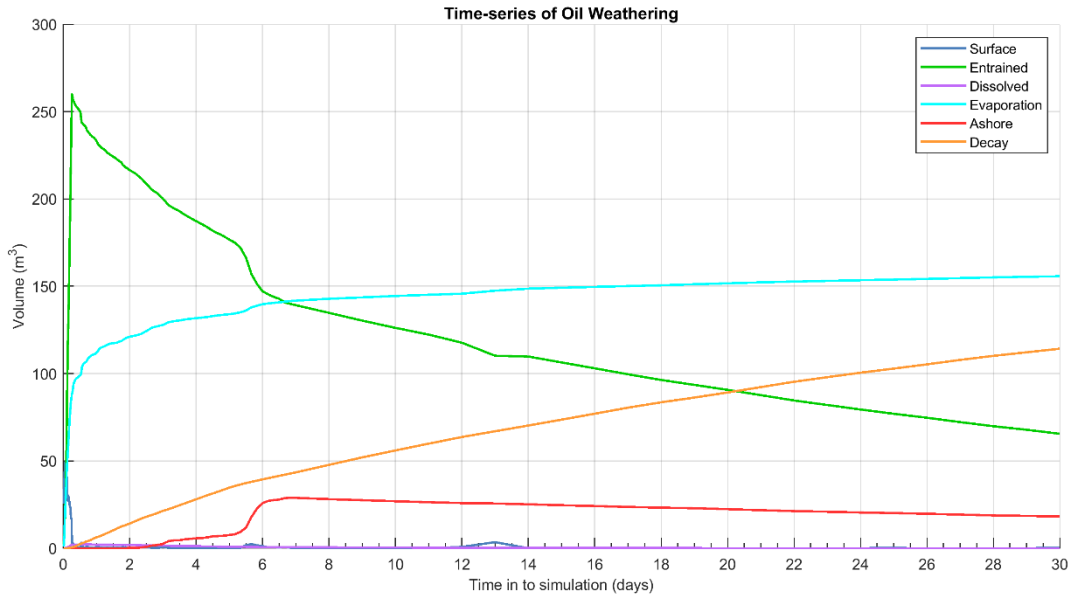


Figure 14.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

14.3.2 Largest Area of Floating Oil Exposure

The simulation that resulted in the largest swept area of floating hydrocarbon exposure at or above the low exposure threshold of 170.6 km^2 was identified as run number 60 and commenced during winter conditions, 3 pm 27th August 2014.

Figure 14.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). No shoreline accumulation was predicted during the simulation.

The extent of the predicted entrained hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 30 days is presented in Figure 14.15. No zones of dissolved hydrocarbon exposure were predicted for the simulation.

Figure 14.16 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 194 m^3 (~55%) was lost to the atmosphere through evaporation. Approximately, 87 m^3 (~25%) of the released volume decayed, while approximately 71 m^3 (~20%) was predicted to remain within the water column.

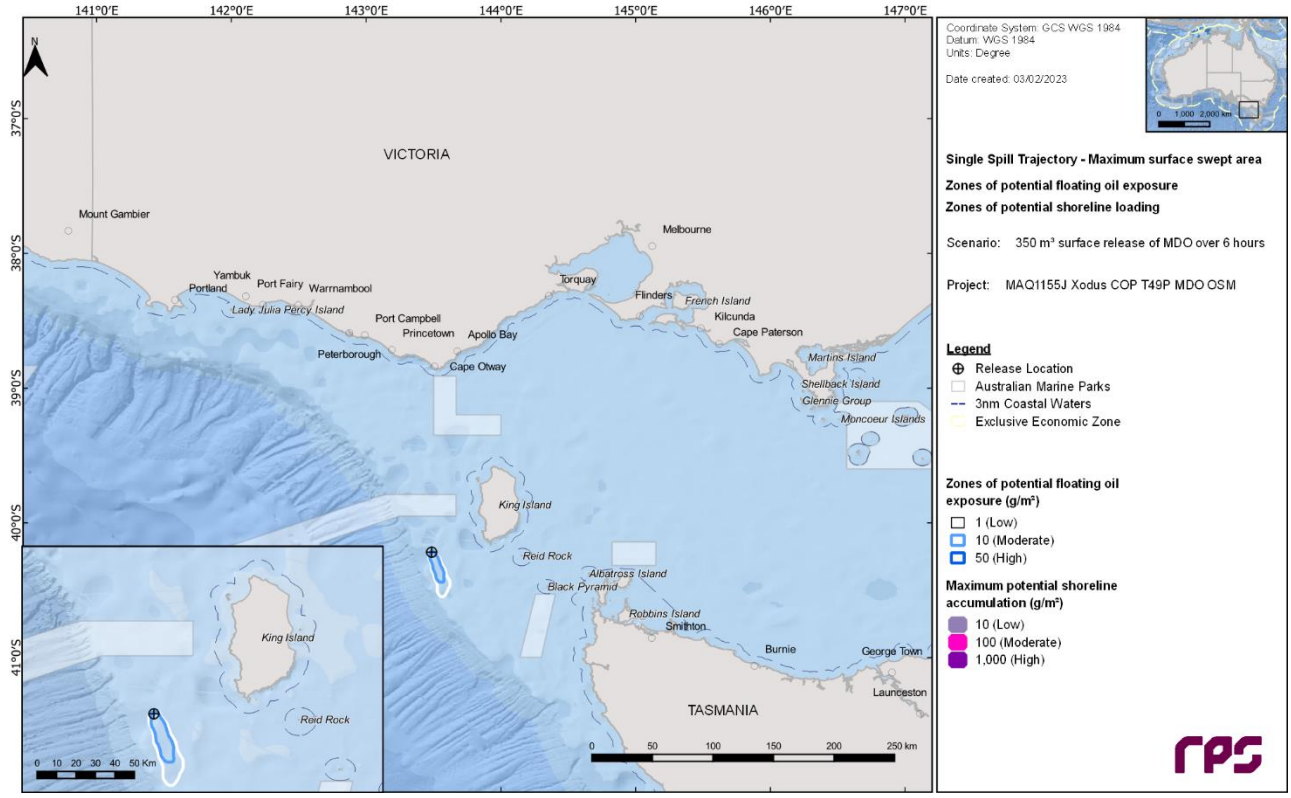


Figure 14.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest area of floating hydrocarbon exposure from a vessel collision at Location 3.

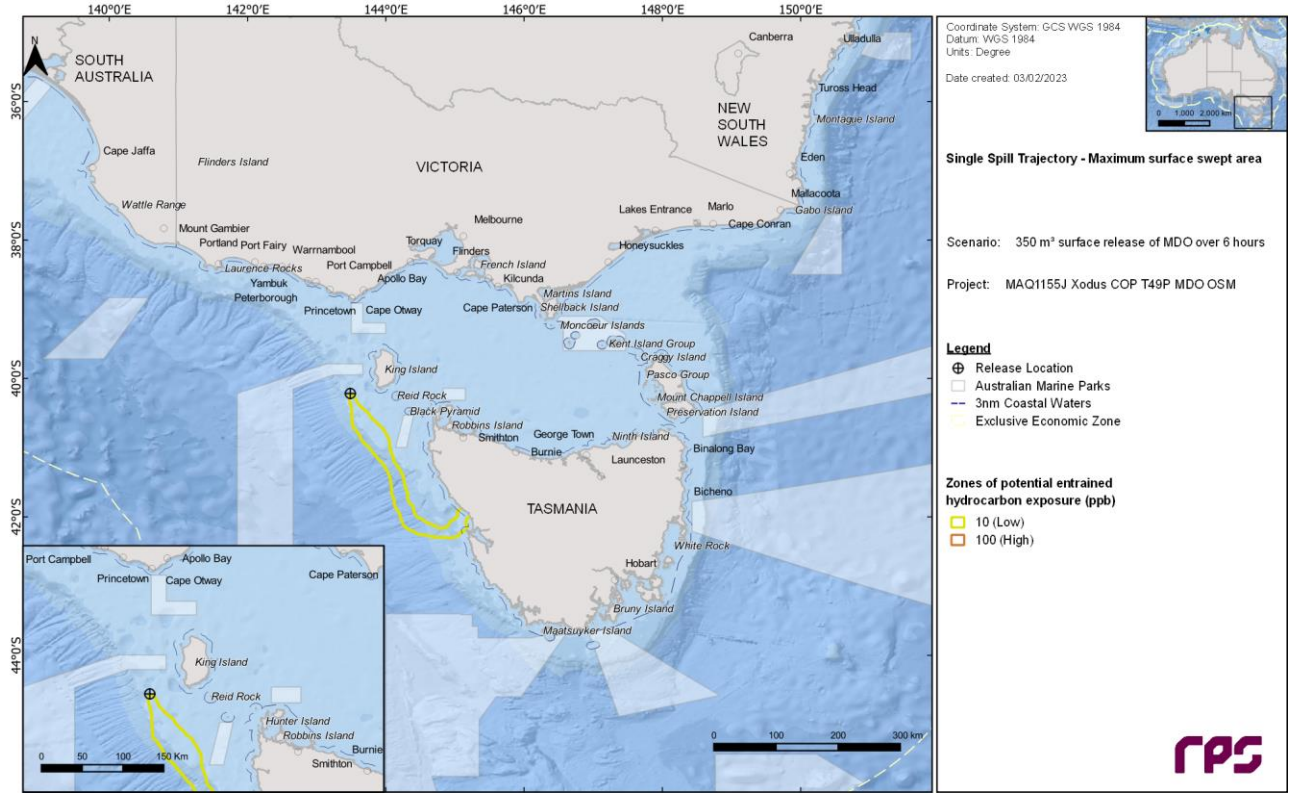


Figure 14.15 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest area of floating hydrocarbon exposure from a vessel collision at Location 3.

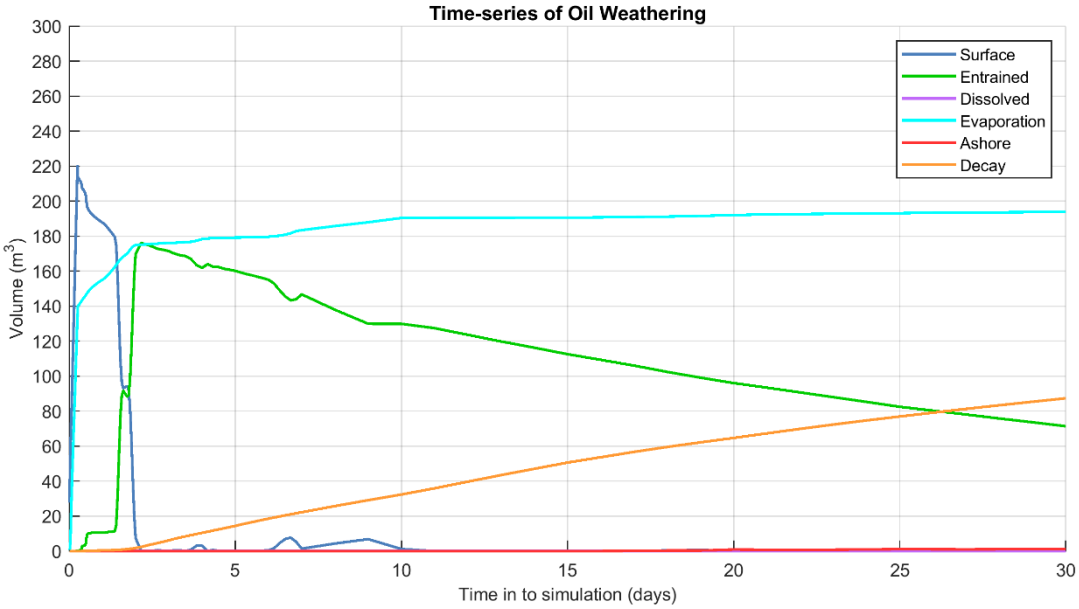


Figure 14.16 Predicted weathering and fates for the simulation that led to the largest area of floating hydrocarbon exposure from a vessel collision at Location 3.

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TERMS AND ABBREVIATIONS

°	Degrees
‘	Minutes
“	Seconds
µm	Micrometre (unit of length; 1 µm = 0.001 mm)
Actionable oil	Oil which is thick enough for the effective use of mitigation strategies
AMP	Australian Marine Park
AMSA	Australian Maritime Safety Authority
AMOP	Arctic and Marine Oil Spill Program
ANZECC	Australian and New Zealand Environment and Conservation Council
API	American Petroleum Institute gravity. A measure of how heavy or light a petroleum liquid is compared to water.
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
ASTM	American Society for Testing and Materials
BMSL	Below mean sea level
Bonn Agreement	An agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances, 1983, includes: Governments of the Kingdom of Belgium, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Republic of Ireland, the Kingdom of the Netherlands, the Kingdom of Norway, the Kingdom of Sweden, the United Kingdom of Great Britain and Northern Ireland and the European Union.
BP	Boiling point. The temperature at which the vapor pressure of the liquid is equal to the pressure exerted on it by the surrounding atmosphere
BTEX	Benzene, toluene, ethylbenzene, and xylenes
˚C	Degree Celsius (unit of temperature)
CFSR	Climate Forecast System Reanalysis
cm	Centimetre (unit of length)
ConocoPhillips	ConocoPhillips Australia SH1 Pty Ltd
cP	Centipoise (unit of dynamic viscosity)
Decay	The process where oil components are changed either chemically or biologically (biodegradation) to another compound. It includes breakdown to simpler organic carbon compounds by bacteria and other organisms, photo-oxidation by solar energy, and other chemical reactions.
Dynamic viscosity	The dynamic viscosity of a fluid expresses its resistance to shearing flows, where adjacent layers move parallel to each other with different speeds.
Floating oil exposure	Contact by floating oil on the sea surface at concentrations equal to or exceeding defined threshold concentrations. The consequence will vary depending on the threshold and the receptors
g/m^2	Grams per square meter (unit of surface area density)
GEP	Gas export pipeline
GODAE	Global Ocean Data Assimilation Experiment
HYCOM	Hybrid Coordinate Ocean Model. A data-assimilative, three-dimensional ocean model

HYDROMAP	Advanced ocean/coastal tidal model used to predict tidal water levels, current speed and current direction.
IBRA	Interim Biogeographic Regionalisation for Australia
IMCRA	Integrated Marine and Coastal Regionalisation of Australia
ITOPF	International Tanker Owners Pollution Federation Limited
KEF	Key Ecological Feature
km	Kilometre (unit of length)
km^2	Square kilometres (unit of area)
Knots	Unit of speed (1 knot = 0.514 m/s)
LOWC	Loss of well control
m	Meter (unit of length)
m^3	Cubic meter (unit of volume)
m/s	Meter per second (unit of speed)
MAHs	Monoaromatic hydrocarbons
MMA	Marine Management Area
MP	Marine Park
NASA	National Aeronautics and Space Administration (USA)
NCEP	National Centres for Environmental Prediction (USA)
nm	Nautical mile
NOAA	National Oceanic and Atmospheric Administration (USA)
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
NP	National Park
NR	Nature Reserve
NRC	National Research Council
PAH	Polynuclear aromatic hydrocarbons
Pour point	The pour point of a liquid is the temperature below which the liquid loses its flow characteristics
ppb	Parts per billion (concentration)
psu	Practical salinity units
psia	Pounds per square inch (absolute)
Ramsar site	A site listed under the Ramsar Convention on wetlands which is an international intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.
RSB	Reefs, Shoals and Banks
scf/bbl	Standard cubic feet of gas per barrel of oil
Shoreline accumulation	Arrival of oil at or near shorelines at on-water concentrations equal to or exceeding defined threshold concentrations. Shoreline contact is judged for floating oil arriving within a 2 km buffer zone from any shoreline as a conservative measure
SIMAP	Spill Impact Model Application Package. SIMAP is designed to simulate the fate and effects of spilled hydrocarbons for surface or subsea releases

Single Oil spill modelling	Oil spill modelling involving a computer simulation of a single hypothetical oil spill event subject to a single sequence of wind, current and other sea conditions over time. Single oil spill modelling, also referred to as “deterministic modelling” provides a simulation of one possible outcome of a given spill scenario, subject to the metocean conditions that are imposed. Single oil spill modelling is commonly used to consider the fate and effects of ‘worst-case’ oil spill scenarios that are carefully selected in consideration of the nature and scale of the offshore petroleum activity and the local environment (NOPSEMA, 2017). Because the outcomes of a single oil spill simulation can only represent the outcome of that scenario under one sequence of metocean conditions, worst-case conditions are often identified from stochastic modelling. It is impossible to calculate the likelihood of any outcome from a single oil spill simulation. Single oil spill modelling is generally used for response planning, preparedness planning and for supporting oil spill response operations in the event of an actual spill
SRTM	Shuttle Radar Topography Mission
Stochastic oil spill modelling	Stochastic oil spill modelling is created by overlaying and statistically analysing the outcomes of many single oil-spill simulations of a defined spill scenario, where each simulation was subject to a different sequence of metocean conditions, selected objectively (typically by random selection) from a long sequence of historic conditions for the study area. Analysis of this larger set of simulations provides a more accurate indication of the environment that maybe affected (EMBA) and indicates which locations are more likely to be affected (as well as other statistics). Stochastic oil spill modelling avoids biases that affect single oil spill modelling (due to the reliance on only one possible sequence of conditions). However, when interpreting stochastic modelling, which is based on a wide range of potential conditions that might happen to occur, it is essential to understand that calculations will encompass a much larger area than could be affected in any single spill event, where a more limited set of conditions will occur. Consequently, it is misleading to imply that the region derived from stochastic modelling indicate the outcomes expected from a single spill event (NOPSEMA, 2017) Stochastic modelling is generally used for risk assessment and preparedness planning by indicating locations that could be exposed and may require response or subsequent impact assessment
Summer	October to March
TOPEX/Poseidon	A joint satellite mission between NASA and CNES to map ocean surface topography using an array of satellites equipped with detailed altimeters
USA	United States of America
Winter	April to September
WGS 1984	World Geodetic System 1984 (WGS84); reference coordinate system
World Ocean Atlas	A collection of objectively analysed quality controlled physicochemical parameters (e.g. temperature, salinity, oxygen, phosphate, silicate, and nitrate) based on profile data from the World Ocean Database established by NOAA’s National Centers for Environmental Information (NCEI)

EXECUTIVE SUMMARY

Background

ConocoPhillips Australia SH1 Pty Ltd (ConocoPhillips) is considering an exploration drilling campaign in Permit T/49P, in Commonwealth waters. The closest points of the permit area is 23.5 km from the west coast of King Island and 26 km from the Victorian coast. Water depths in the permit area range from 70 m to 1,000 m, with approximately 90% of the survey area being in water depths less than 150 m.

An oil spill modelling study was undertaken to assess the potential exposure from a subsea loss of well control (LOWC) from 3 worst case target locations due to the extent of the permit area. Specifically, the scenario assessed was a 139,400 m^3 subsea release of condensate over 90 days (1,549 m^3/day).

The study assessed the potential risk of exposure to the surrounding waters and shorelines for two seasons, summer months (October to March) and winter conditions (April to September). This approach assists with identifying the environmental values and sensitive regions/receptors that would be at risk of exposure on a seasonal basis, given the dominant winds and water currents that vary among the seasons.

The purpose of the modelling is to provide an understanding of the conservative 'outer envelope' of the potential area that may be affected in the unlikely event of a vessel based spill. Since, the modelling does not take into consideration any of the spill prevention, mitigation and response capabilities that would be implemented in response to the spill, the results presented herein are conservative.

The spill modelling was performed using an advanced three-dimensional trajectory and fates model; Spill Impact Model Application Program (SIMAP). The SIMAP model calculates the transport, spreading, entrainment and evaporation of spilled hydrocarbons over time, based on the prevailing wind and current conditions and the physical and chemical properties.

Methodology

The modelling study was carried out in stages. Firstly, a 10-year current dataset (2010 – 2019) that includes the combined influence of large-scale ocean and nearshore tidal currents was developed. Secondly, the currents, local winds and detailed hydrocarbon characteristics were used as inputs in the three-dimensional oil spill model (SIMAP) to simulate the drift, spread, weathering and fate of the spilled hydrocarbons.

As spills can occur during any set of wind and current conditions, modelling was conducted using a stochastic (or statistical) approach, which involved running 100 spills modelled for each scenario, per season, with each simulation having the same information (i.e. location volume and condensate properties) and randomly selected start times. This ensured that each simulation was subjected to different wind and current conditions and, in turn, movement and weathering of the condensate. The results were combined to determine the potential exposure to the surrounding waters, shorelines and sensitive receptors based on the NOPSEMA thresholds.

The SIMAP system, methods and analysis presented herein, use modelling algorithms which have been anonymously peer reviewed and published in international journals. Further, RPS warrants that this work meets and exceeds the ASTM Standard F2067-13 "*Standard Practice for Development and Use of Oil Spill Models*".

Condensate Properties

Thylacine condensate was used as a proxy, which has an API of 44.3, a density of 805 kg/m^3 (at 15ºC) and a low viscosity value of 0.875 cP. The volatile to semi-volatile components (boiling point (BP) < 265 °C), which represent approximately 83% of the whole condensate is likely to evaporate over the first day if exposed to the atmosphere at local temperatures, leaving the less volatile portion (16%) to progressively evaporate more slowly. Only 1% of the condensate is considered persistent.

Thylacine condensate is categorised as a group I oil (non – persistent oil) according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges. The heavier components (i.e low volatile portion) of the condensate will tend to entrain into the upper water column during the presence of moderate winds (> 10 knots) and can potentially remain entrained for as long as the winds persist. But can subsequently resurface when the winds ease, and waves abate.

Key Findings

Location 1

- The maximum distance from the release location to the low (1 g/m^2) and moderate (10 g/m^2) floating oil exposure thresholds was 275.0 km (summer), 13.6 km (summer and winter), respectively. No floating oil exposure at the high (50 g/m^2) threshold was predicted.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during winter at 100%, while the minimum time before shoreline accumulation at the low threshold was 8.29 days predicted during winter. The maximum total volume of oil ashore was predicted during the winter with 20.0 m^3.
- The maximum distance from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 769 km (winter), 722 km (winter) and 452 km (winter), respectively.
- The maximum distance from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 833 km (winter) and 666 km (summer), respectively.

Location 2

- The maximum distance from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 147.4 km (winter), 42.7 km (summer and winter) and 0.3 km (summer and winter), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was 100% during both summer and winter, while the minimum time before shoreline accumulation at the low threshold was 3.21 days predicted during winter. The maximum total volume of oil ashore was predicted during the winter with 196.6 m^3 (over the duration of the simulation).
- Maximum distance from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 703 km (winter), 483 km (winter) and 313 km (winter), respectively.
- The maximum distance from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 831 km (summer and winter) and 583 km (summer), respectively.

Location 3

- The maximum distance from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 196.2 km (winter), 15.4 km (summer) and 1.3 km (winter), respectively.

- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was 100% during both summer and winter, while the minimum time before shoreline accumulation at the low threshold was 4.00 days predicted during winter conditions. The maximum volume of oil ashore was predicted during the winter with 58.7 m^3.

- Maximum distance from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 773 km (winter), 492 km (summer) and 308 km (summer), respectively.

- The maximum distance from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 846 km (winter) and 430 km (winter), respectively.

1 BACKGROUND

1.1 Introduction

ConocoPhillips Australia SH1 Pty Ltd (ConocoPhillips) is considering an exploration drilling campaign in Permit T/49P, in Commonwealth waters. The closest points from the permit area are the west coast of King Island (23.5 km east) and Victorian coastline (26 km north). Water depths in the permit area range from 70 m to 1,000 m, with approximately 90% of the survey area being in water depths less than 150 m.

Xodus on behalf of ConocoPhillips had commissioned RPS to undertake an oil spill modelling study to assess the potential exposure from a subsea loss of well control (LOWC) from 3 worst case target locations due to the extent of the permit area. The LOWC scenario was based on a 139,400 m^3 subsea release of condensate over 90 days (1,549 m^3/day). Table 1-1 presents the coordinates of the three release locations and Figure 1.1 is the location map.

The study assessed the potential risk of exposure to the surrounding waters and shorelines for two seasons, summer months (October to March) and winter conditions (April to September). This approach assists with identifying the environmental values and sensitive regions/receptors that would be at risk of exposure on a seasonal basis, given the dominant winds and water currents that vary among the seasons.

The purpose of the modelling is to further improve understanding of a conservative 'outer envelope' of the potential area that may be affected in the unlikely event of hydrocarbon release. The modelling does not take into consideration any of the spill prevention, mitigation and response capabilities that would be implemented in response to the spill. Therefore, the modelling results represent the maximum extent that the released hydrocarbons may influence.

The spill modelling was performed using an advanced three-dimensional trajectory and fates model; Spill Impact Model Application Program (SIMAP). The SIMAP model calculates the transport, spreading, entrainment and evaporation of spilled hydrocarbons over time, based on the prevailing wind and current conditions and the physical and chemical properties.

Note that the oil spill model, the method, and analysis presented herein uses modelling algorithms which have been anonymously peer reviewed and published in international journals. Furthermore, RPS warrants that this work meets and exceeds the American Society for Testing and Materials (ASTM) Standard F2067-13 "*Standard Practice for Development and Use of Oil Spill Models*".

Table 1-1 T/49P hydrocarbon spill modelling release locations.

Release location	Latitude*	Longitude*	Water depth (m)
Location 1	39° 15' 46.6" S	143° 20' 26.4" E	93
Location 2	39° 47' 49.7" S	143° 30' 46.3" E	100
Location 3	40° 13' 5.3" S	143° 29' 10.9" E	114

*Datum: WGS 1984

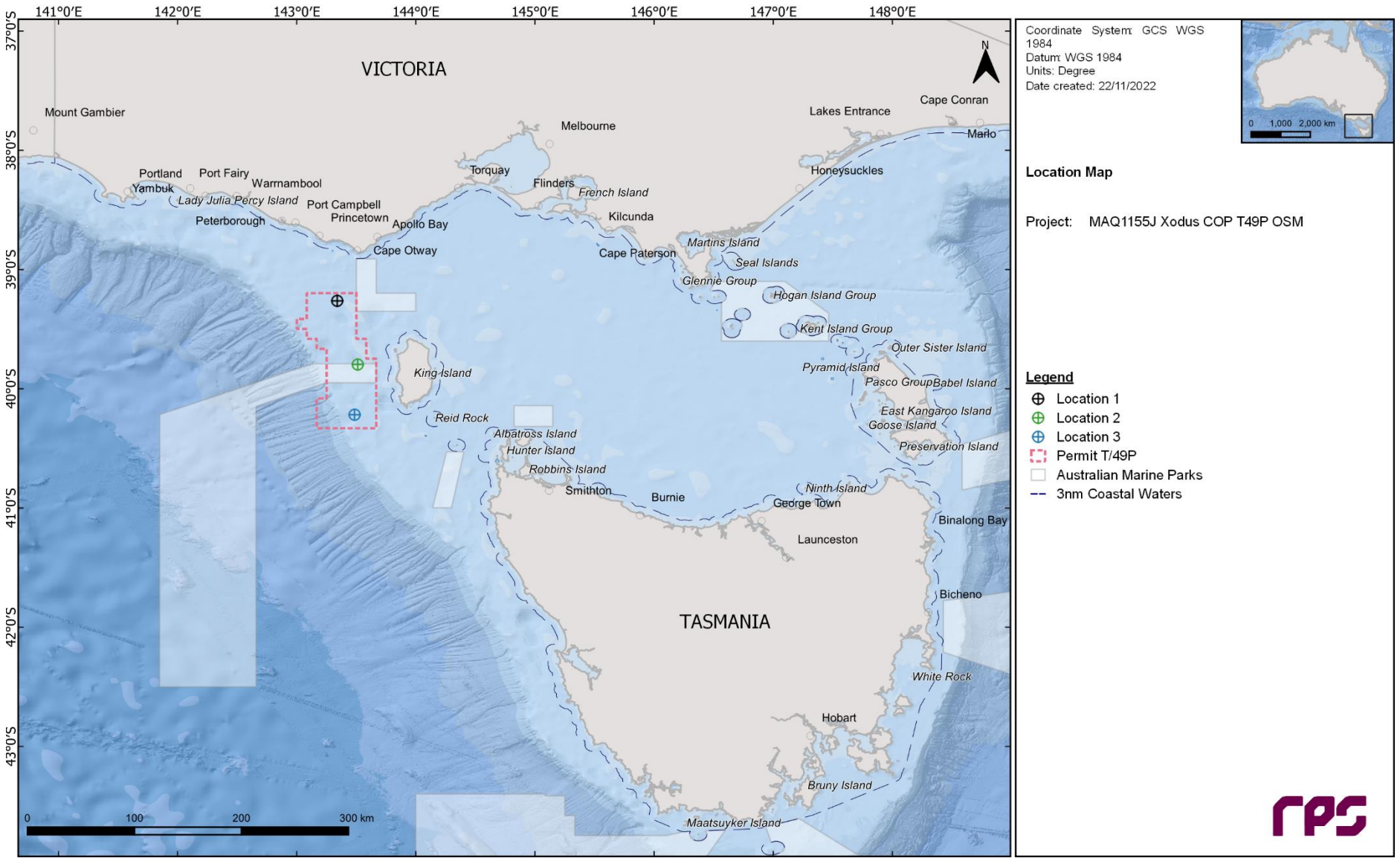


Figure 1.1 T/49P hydrocarbon spill modelling release locations.

1.2 What is Oil Spill Modelling?

Oil spill modelling is a valuable tool widely used for risk assessment, emergency response and contingency planning where it can be particularly helpful to proponents and decision makers. By modelling a series of the most likely oil spill scenarios, decisions concerning suitable response measures and strategic locations for deploying equipment and materials can be made, and the locations at most risk can be identified. The two types of oil spill modelling often used are stochastic (Section 1.2.1) and deterministic (Section 1.2.2) modelling.

1.2.1 Stochastic Modelling (Multiple Spill Simulations)

Stochastic oil spill modelling is created by overlaying a great number (often hundreds) of individual, computer-simulated hypothetical spills (NOPSEMA, 2018; Figure 1.2).

Stochastic modelling is a common means of assessing the potential risks from oil spills related to new projects and facilities. Stochastic modelling typically utilises hydrodynamic data for the location in combination with historic wind data. Typically, 100 iterations of the model will be run utilising the data that is most relevant to the season or timing of the project.

The outcomes are often presented as a probability of exposure and is primarily used for risk assessment purposes in view to understand the range of environments that may be affected or impacted by a spill. Elements of the stochastic modelling can also be used in oil spill preparedness and planning.

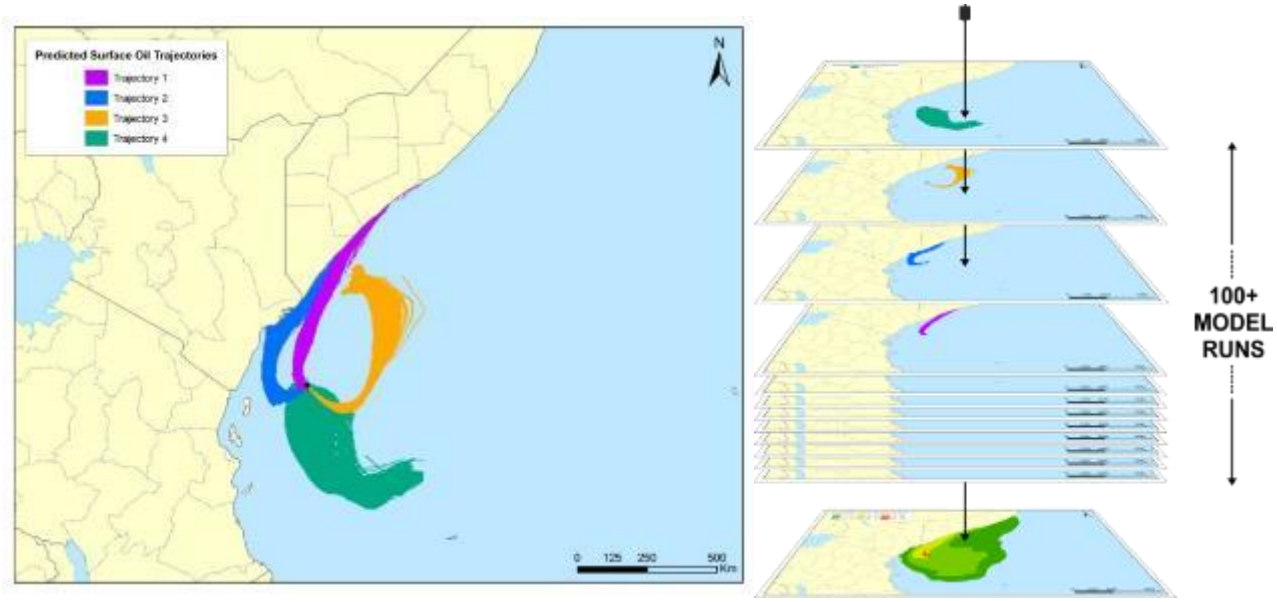


Figure 1.2 Examples of four individual spill trajectories (four replicate simulations) predicted by SIMAP for a spill scenario. The frequency of contact with given locations is used to calculate the probability of impacts during a spill. Essentially, all model runs are overlain (shown as the stacked runs on the right) and the number of times that trajectories contact a given location at a concentration is used to calculate the probability.

1.2.2 Deterministic Modelling (Single Spill Simulation)

Deterministic modelling is the predictive modelling of a single incident subject to a single sample of wind and weather conditions over time (NOPSEMA, 2018; Figure 1.3).

Deterministic modelling is often paired with stochastic modelling to place the large stochastic footprint into perspective. This deterministic analysis is generally a single run selected from the stochastic analysis and serves as the basis for developing the plans and equipment needs for a realistic spill response. Deterministic spills can be selected on based on parameters such as minimum time to shoreline, largest swept area, maximum volume ashore and longest length of shoreline contacted by hydrocarbons.

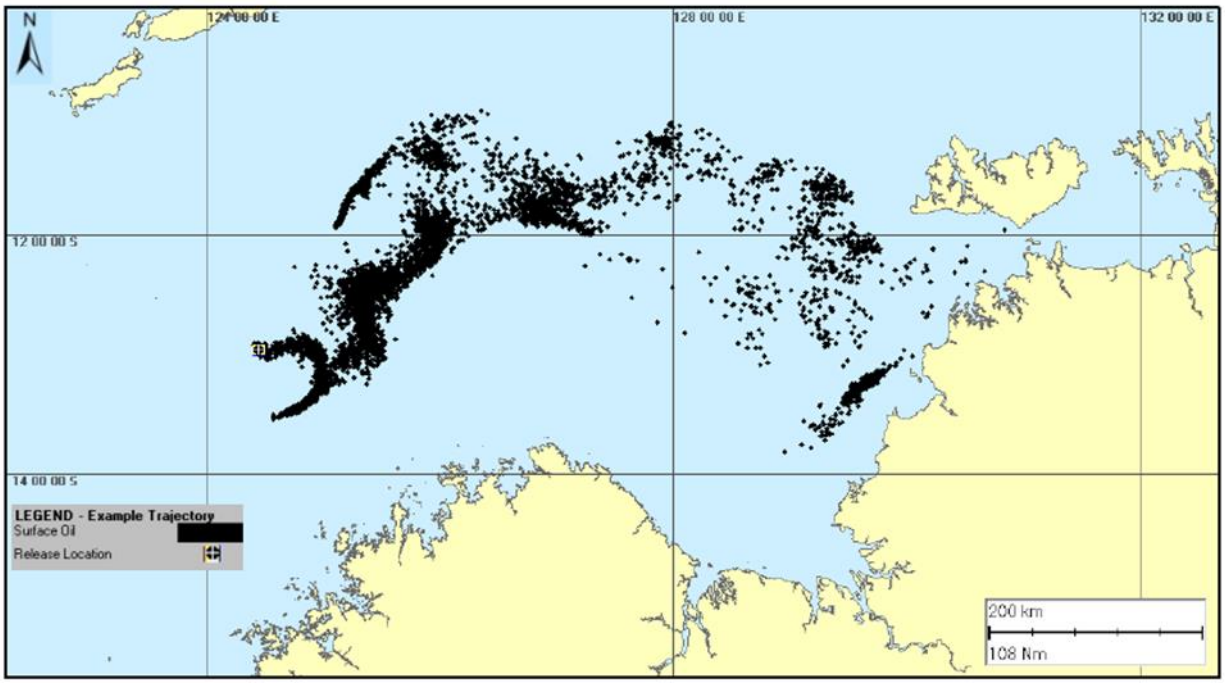


Figure 1.3 Example of an individual spill trajectory predicted by SIMAP for a spill scenario. Note, this image represents surface oil as spill and does not take any thresholds into consideration.

2 SCOPE OF WORK

The scope of work included the following components:

1. Generate ten years (2010 to 2019 (inclusive)) of wind and current data. The three-dimensional current data includes the combined influence of ocean and tidal currents;
2. Include the wind and current data and the condensate characteristics as input into the three-dimensional oil spill model, SIMAP, to model the movement, spreading, weathering and shoreline accumulation by hydrocarbons over time;
3. For each scenario, run 100 oil spill simulations per season (200 total per scenario), with each simulation having the same spill information (i.e. location, volume and condensate properties) but varying start times. This ensured that each spill trajectory was subjected to a unique set of wind and current conditions;
4. Combine the results from the 100 spill simulations (per season) to assess the exposure to waters and shoreline accumulation based upon the NOPSEMA thresholds;
5. Present the combined results from the 200 spill simulations, per scenario, to assess the low threshold environment that maybe affected (EMBA); and
6. From the 200 simulations modelled for each location identify and present the “worst case” deterministic run resulting in the maximum volume of hydrocarbons ashore. From the results for all three locations, identify and present the deterministic simulations resulting in: a) largest area of floating hydrocarbon exposure; b) minimum time to shoreline exposure; and c) longest length of shoreline accumulation.

3 REGIONAL CURRENTS

The Otway Basin lies within the western portion of the Bass Strait, a sea strait separating Tasmania from the southern Australian mainland. The strait is a relatively shallow area of the continental shelf, connecting the southeast Indian Ocean with the Tasman Sea. This region has a reputation for high winds and strong tidal currents (Jones, 1980). Currents are primarily driven by tides, winds and density driven flows. During winter the South Australian current moves dense, salty water eastward from the Great Australian Bight into the western margin of the Bass Strait (Sandery & Kämpf, 2007). In winter and spring, waters within the strait are well mixed with no obvious stratification, while during summer the central regions of the strait become stratified (Baines & Fandry, 1983; Middleton & Black, 1994).

Figure 3.1 displays seasonal current trends within the Otway Basin-Bass Strait region. During winter there is a strong eastward water flow due to the strengthening of the South Australian Current (fed by the Leeuwin Current in the Northwest Shelf), which bifurcates with one extension moving though the Bass Strait, and another forming the Zeehan Current off western Tasmania (Sandery & Kämpf, 2007). During summer, water flow reverses off Tasmania, King Island and the Otway Basin travelling eastward, as the coastal current develops due to south-easterly winds.

Therefore, to accurately account for the movement of an oil spill, which can move between the offshore and near shore region, ocean and tidal currents were combined as part of the study. The following sections provide a summary of the regional current data set.

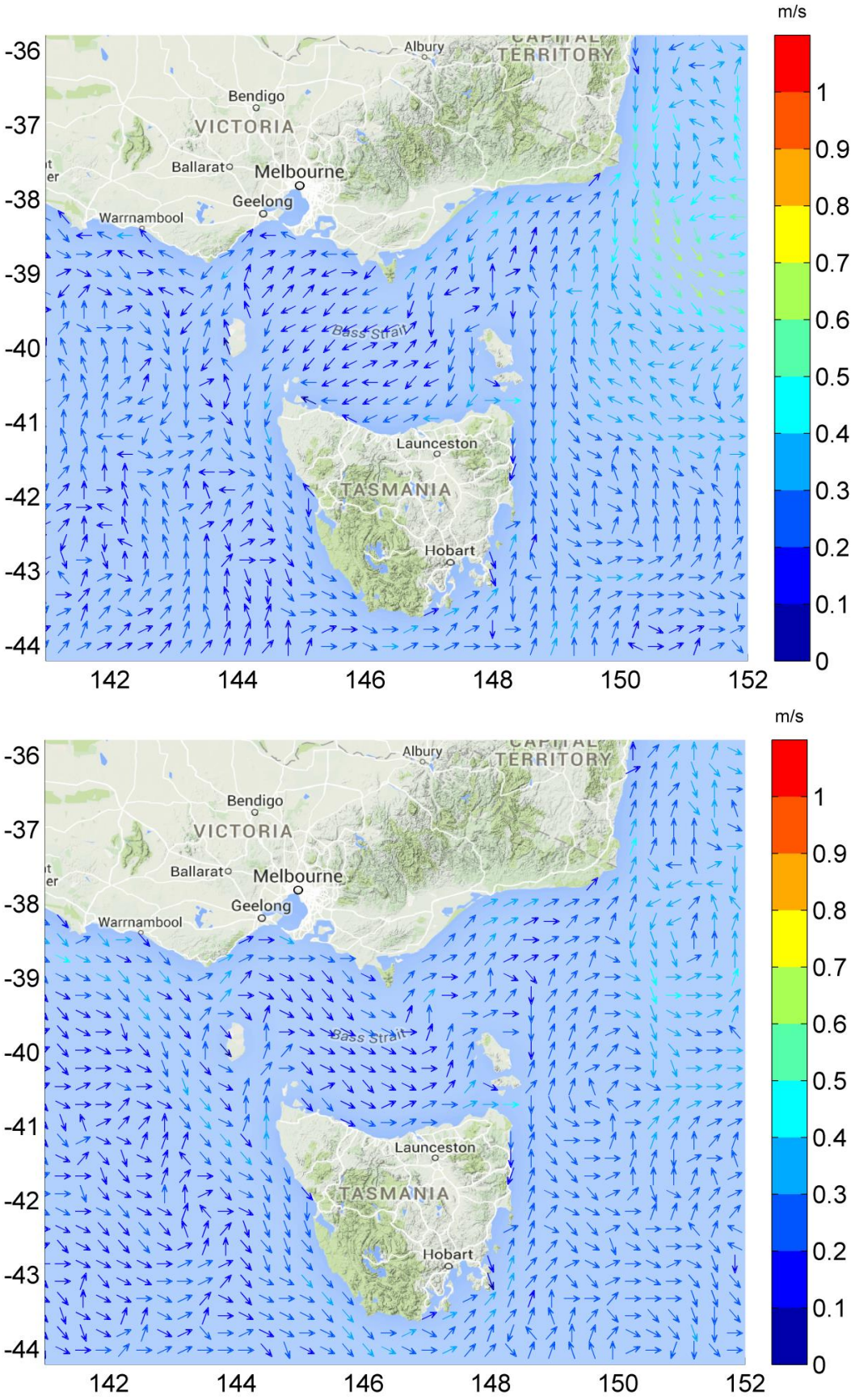


Figure 3.1 HYCOM averaged seasonal surface drift currents during summer (upper image) and winter (lower image).

3.1 Tidal currents

Tidal current data was generated using RPS's advanced ocean/coastal model, HYDROMAP. The HYDROMAP model has been thoroughly tested and verified through field measurements throughout the world for more than 30 years (Isaji & Spaulding, 1984; Isaji, et al., 2001; Zigic, et al., 2003). HYDROMAP tidal current data has been used as input to forecast (in the future) and hindcast (in the past) pollutant spills in Australian waters and forms part of the Australian National Oil Spill Emergency Response System operated by AMSA (Australian Maritime Safety Authority).

HYDROMAP employs a sophisticated sub-gridding strategy, which supports up to six levels of spatial resolution, halving the grid cell size as each level of resolution is employed. The sub-gridding allows for higher resolution of currents within areas of greater bathymetric and coastline complexity, and/or of interest to a study.

The numerical solution methodology follows that of Davies (1977a 1977b) with further developments for model efficiency by Owen (1980) and Gordon (1982). A more detailed presentation of the model can be found in Isaji & Spaulding (1984) and Isaji et al. (2001).

3.1.1 Grid Setup

The tidal model domain has been sub-gridded down to a resolution of 500 m for shallow and coastal regions, starting from an offshore (or deep water) resolution of 8 km. The finer grids were allocated in a step-wise fashion to resolve flows more accurately along the coastline, around islands and over regions with more complex bathymetry. Figure 3.2 shows the tidal model grid covering the study domain.

A combination of datasets was used and merged to describe the shape of the seabed within the grid domain (Figure 3.3). These included spot depths and contours which were digitised from nautical charts released by the hydrographic offices as well as Geoscience Australia database and depths extracted from the Shuttle Radar Topography Mission (SRTM30_PLUS) Plus dataset (see Becker et al., 2009).

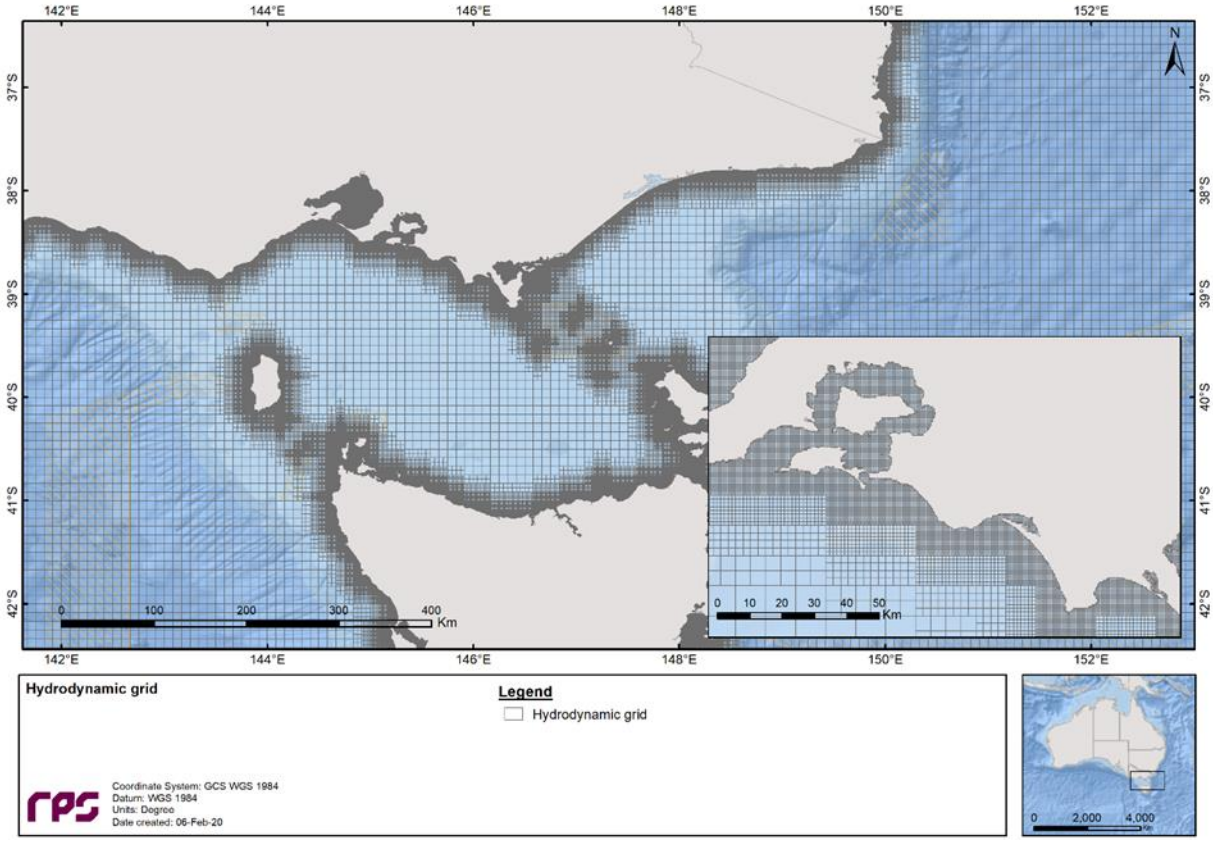


Figure 3.2 Sample of the model grid used to generate the tidal currents for the study region. Higher resolution areas are shown by the denser mesh.

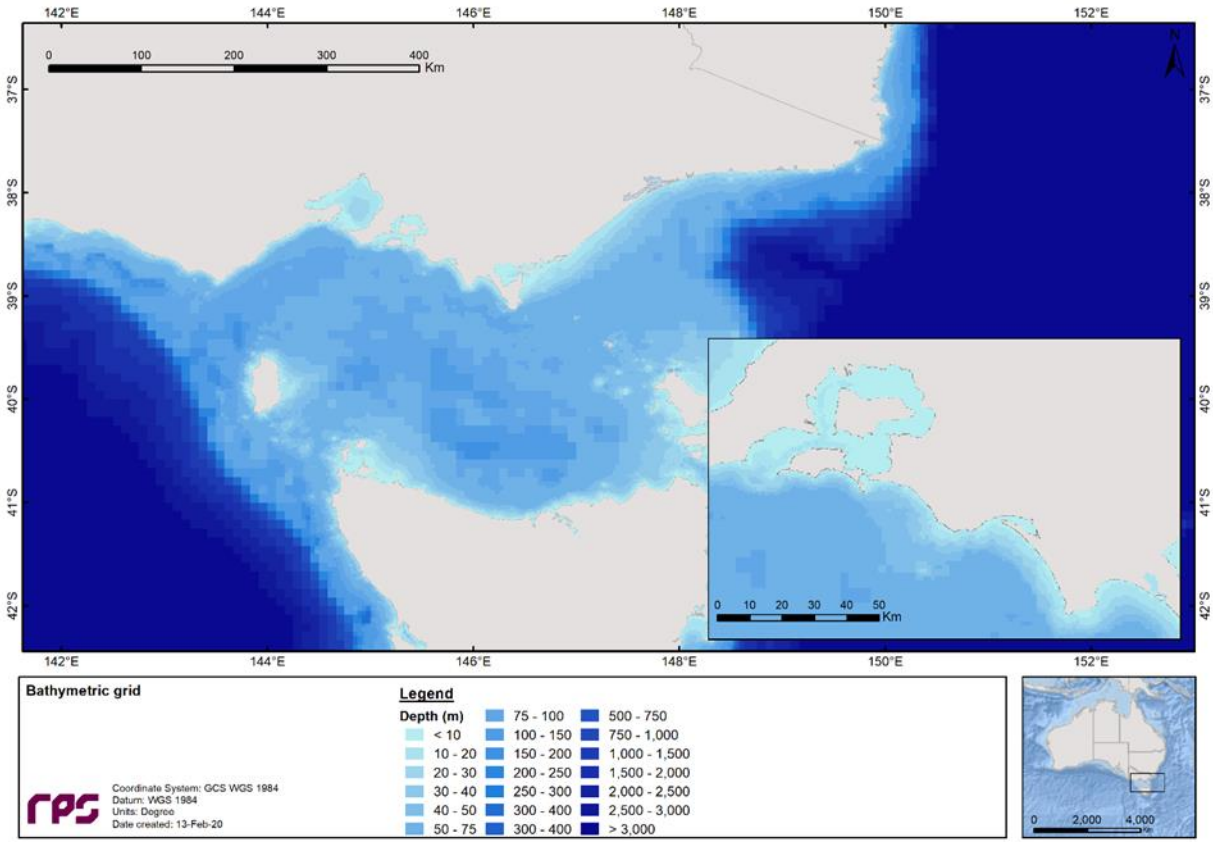


Figure 3.3 Bathymetry defined throughout the tidal model domain.

3.1.2 Tidal Conditions

The ocean boundary data for the regional model was obtained from satellite measured altimetry data (TOPEX/Poseidon 8.0) which provided estimates of the eight dominant tidal constituents at a horizontal scale of approximately 0.25 degrees. The eight major tidal constituents used were K_2, S_2, M_2, N_2, K_1, P_1, O_1 and Q_1. Using the tidal data, time series surface heights were calculated along the open boundaries for the simulation period.

The Topex/Poseidon satellite data has a resolution of 0.25 degrees globally, with higher resolution in coastal regions, and is produced and quality controlled by NASA (National Aeronautics and Space Administration). The data capturing satellites, equipped with two altimeters capable of taking sea level measurements accurate to less than ± 5 cm, measured oceanic surface elevations (and the resultant tides) for the period 1992–2005. In total these satellites carried out 62,000 orbits of the planet. The Topex/Poseidon tidal data has been widely used amongst the oceanographic community, being referenced in more than 2,100 research publications (e.g., Andersen, 1995; Ludicone et al., 1998; Matsumoto et al., 2000; Kostianoy et al., 2003; Yaremchuk & Tangdong, 2004; Qiu & Chen, 2010). The Topex/Poseidon tidal data is considered suitably accurate for this study.

3.2 Ocean Currents

Data describing the flow of ocean currents was obtained from HYCOM (Hybrid Coordinate Ocean Model, (Chassignet et al., 2007), which is operated by the HYCOM Consortium, sponsored by the Global Ocean Data Assimilation Experiment (GODAE). HYCOM is a data-assimilative, three-dimensional ocean model that is run as a hindcast (for a past period), assimilating time-varying observations of sea surface height, sea surface temperature and in-situ temperature and salinity measurements (Chassignet et al., 2009). The HYCOM predictions for drift currents are produced at a horizontal spatial resolution of approximately 8.25 km ($1/12^{th}$ of a degree) over the region, at a frequency of three-times per day. HYCOM uses isopycnal layers in the open, stratified ocean, but uses the layered continuity equation to make a dynamically smooth transition to a terrain-following coordinate in shallow coastal regions, and to z-level coordinates in the mixed layer and/or unstratified seas.

For this study, the HYCOM hindcast currents were obtained for the years 2010 to 2019 (inclusive).

3.3 Surface Currents

Figure 3.4 to Figure 3.6 show the monthly current rose distributions for the three locations, while Figure 3.7 to Figure 3.9 illustrate the total current rose distributions.

Note the convention for defining current direction is the direction the current flows towards, which is used to reference current direction throughout this report. Each branch of the rose represents the currents flowing to that direction, with north to the top of the diagram. Sixteen directions are used. The branches are divided into segments of different colour, which represent the current speed ranges for each direction. Speed intervals of 0.1 m/s are predominantly used in these current roses. The length of each coloured segment is relative to the proportion of currents flowing within the corresponding speed and direction.

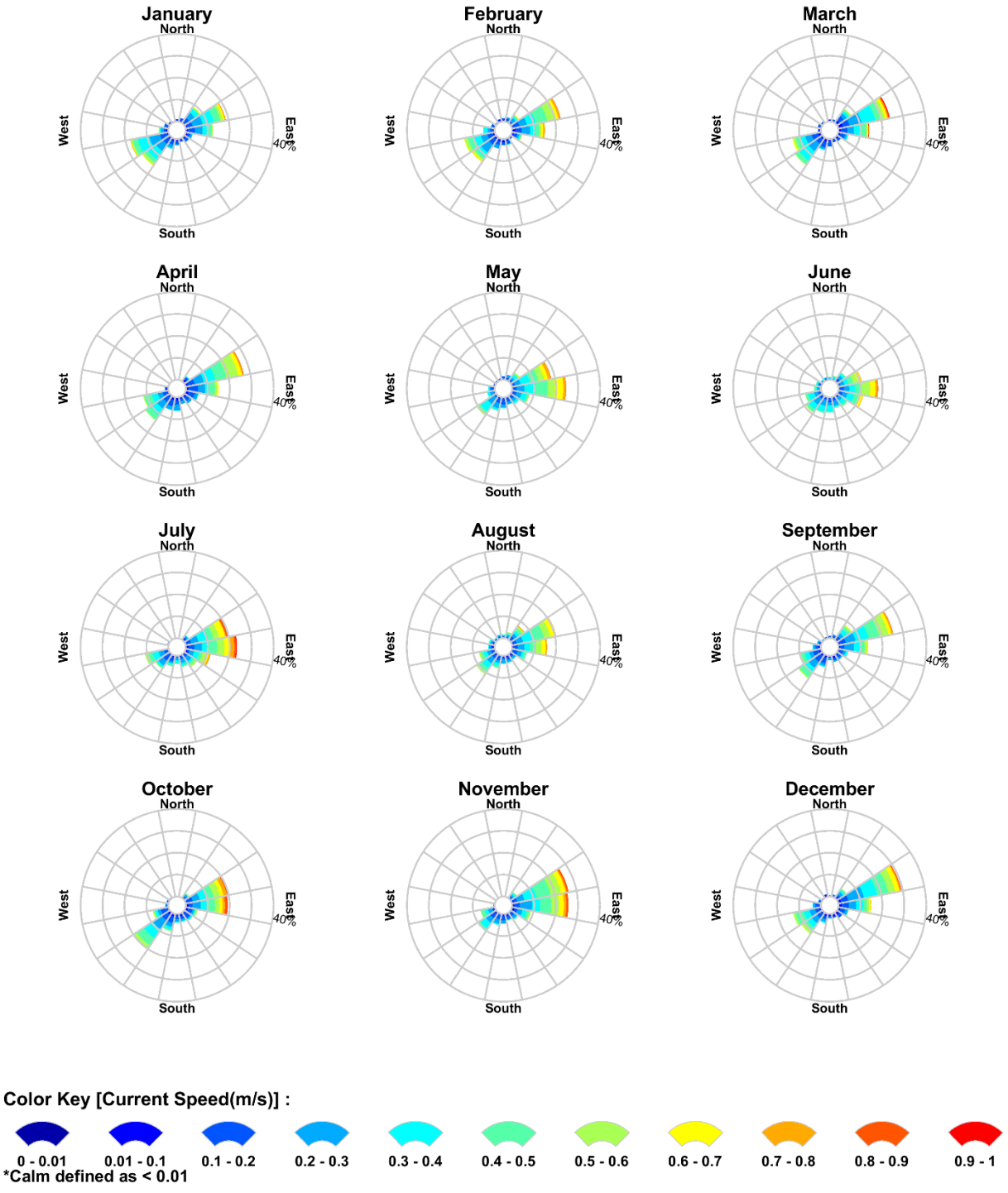


Figure 3.4 Monthly surface current rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

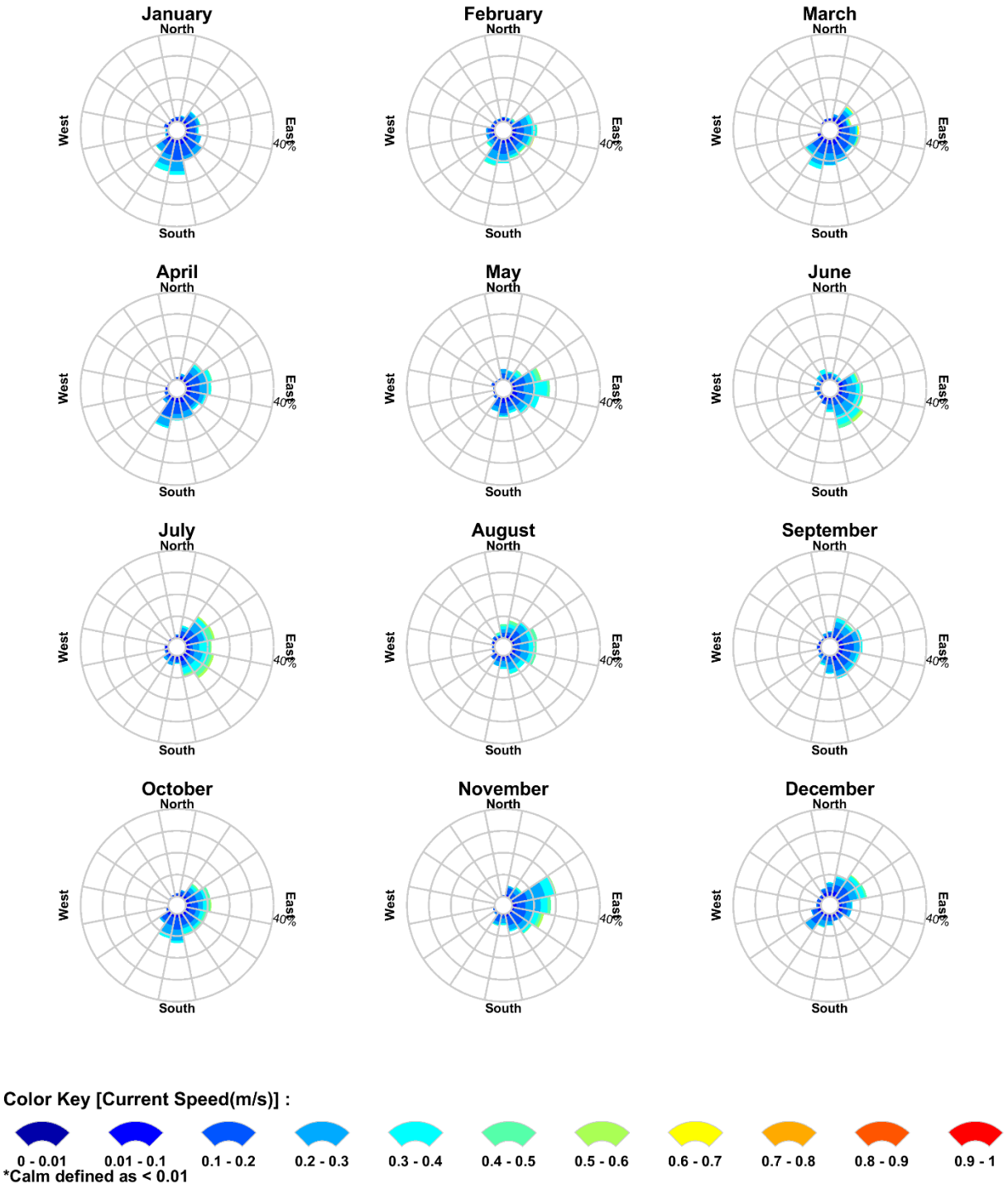


Figure 3.5 Monthly surface current rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

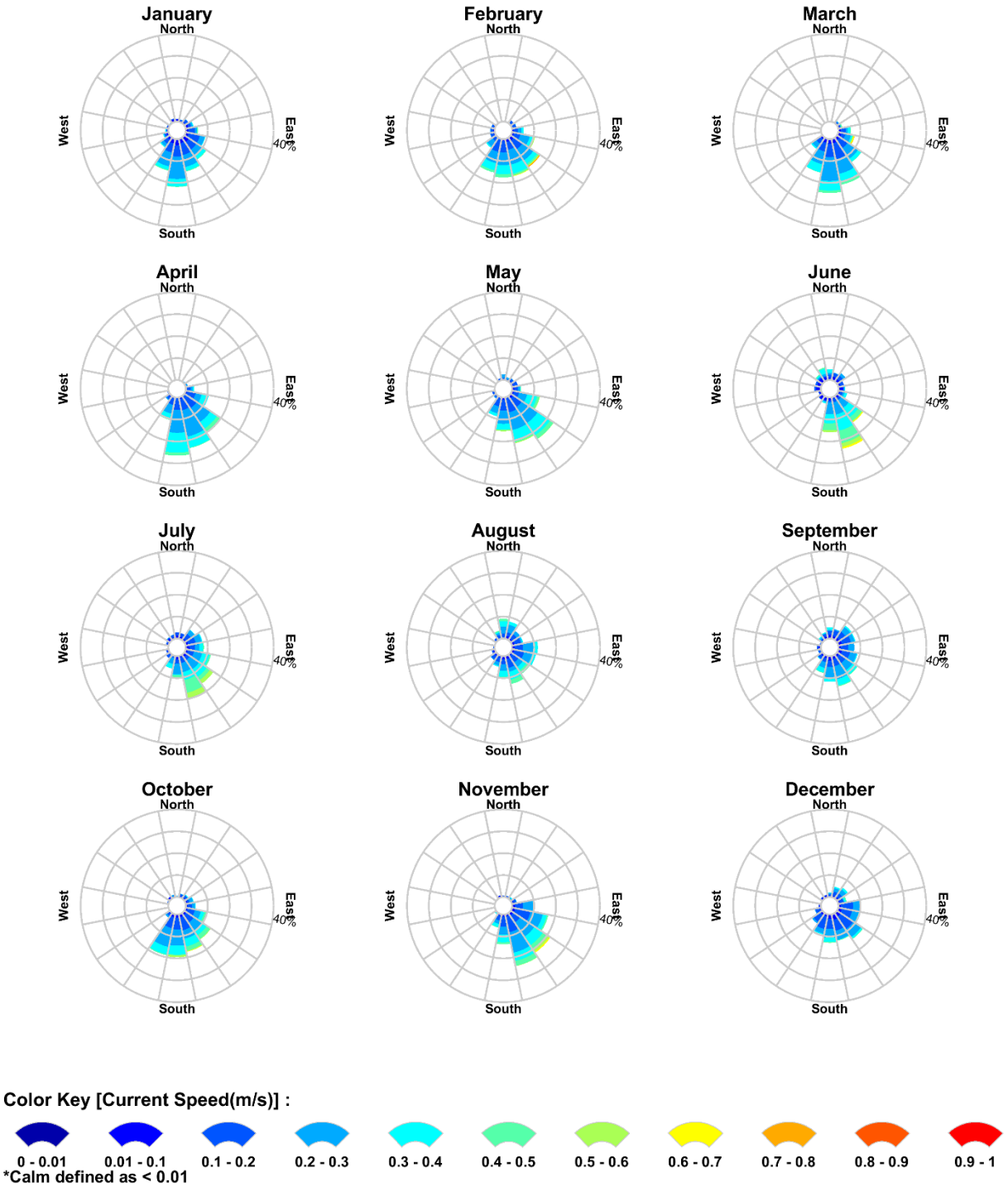


Figure 3.6 Monthly surface current rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

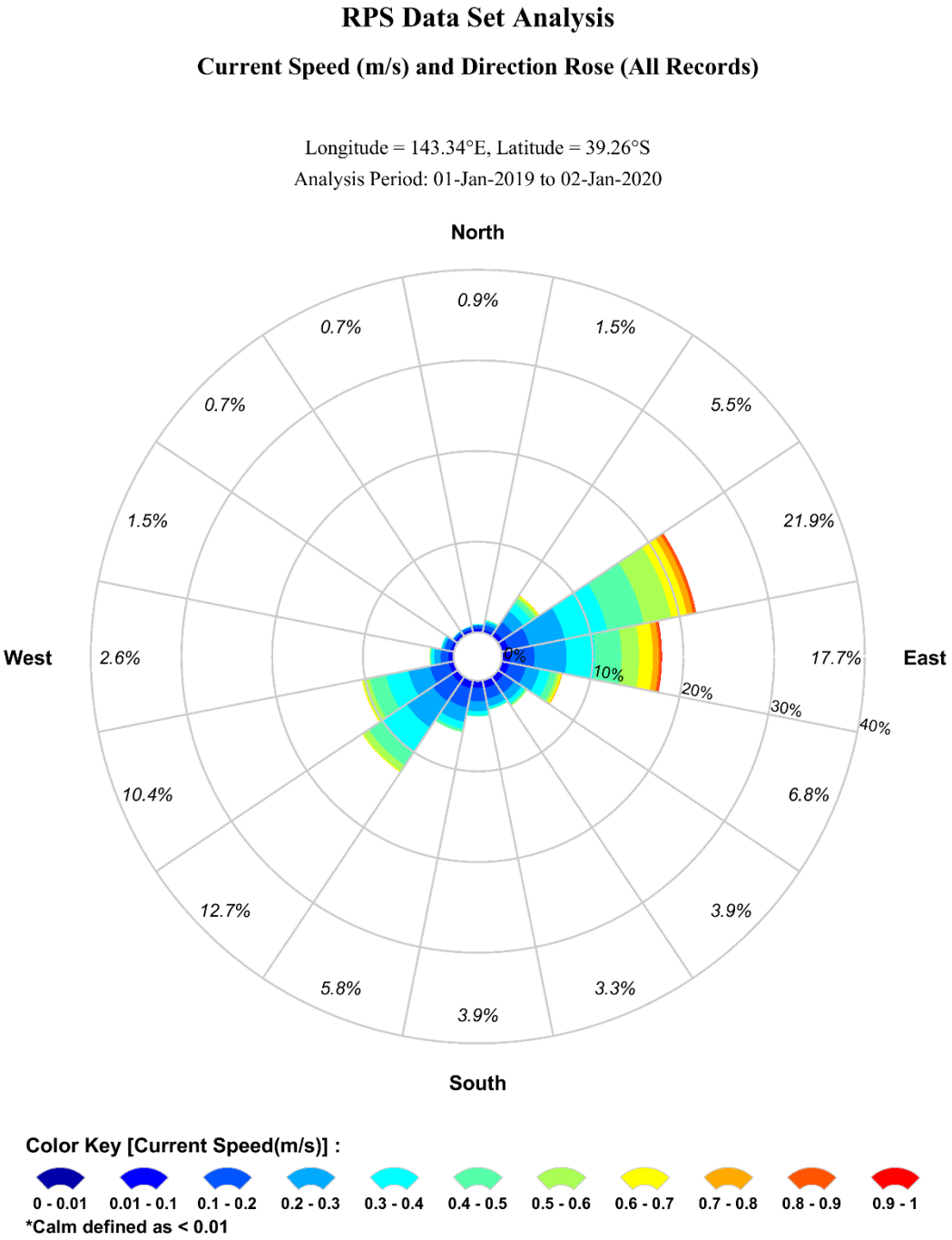


Figure 3.7 Total surface current rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

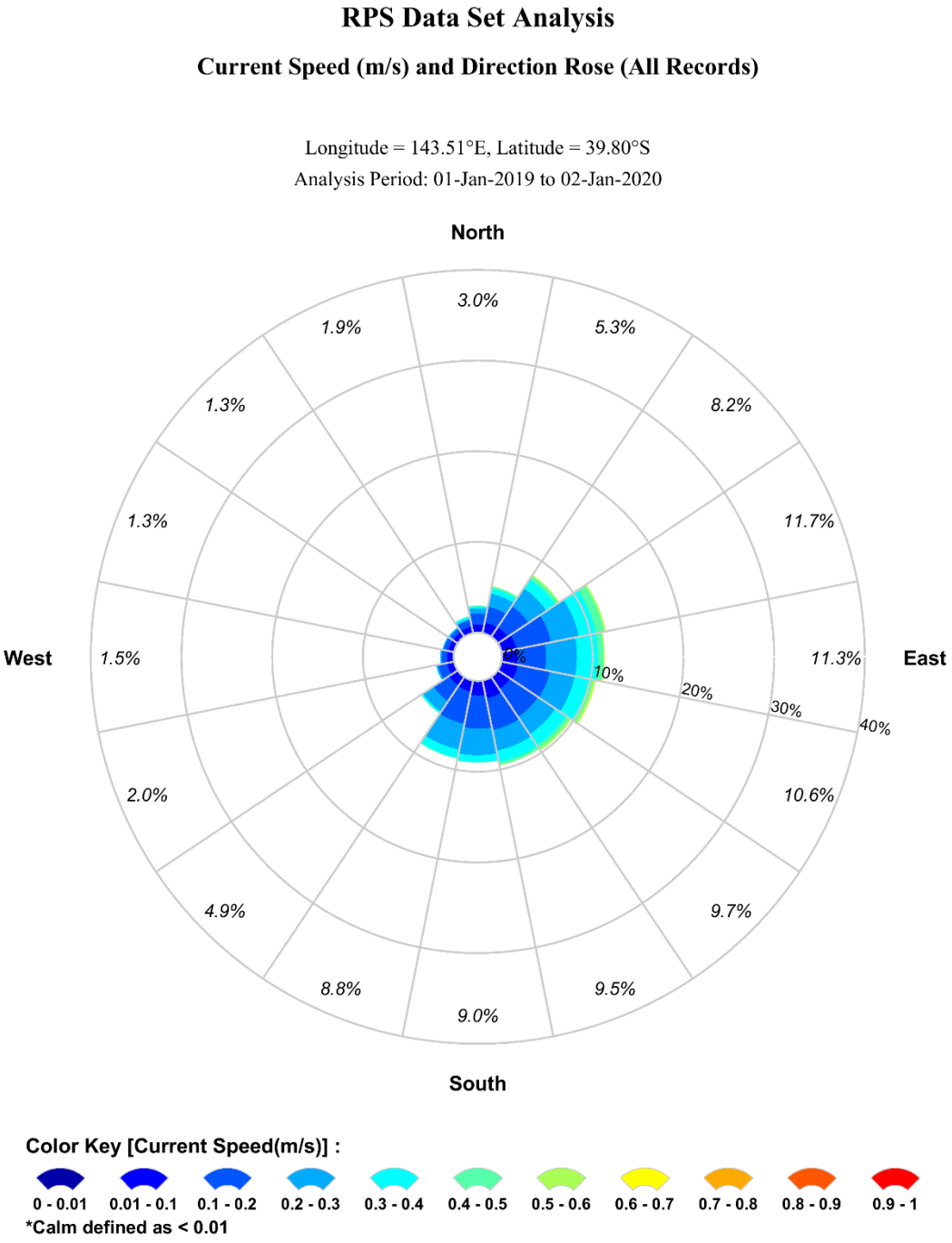


Figure 3.8 Total surface current rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

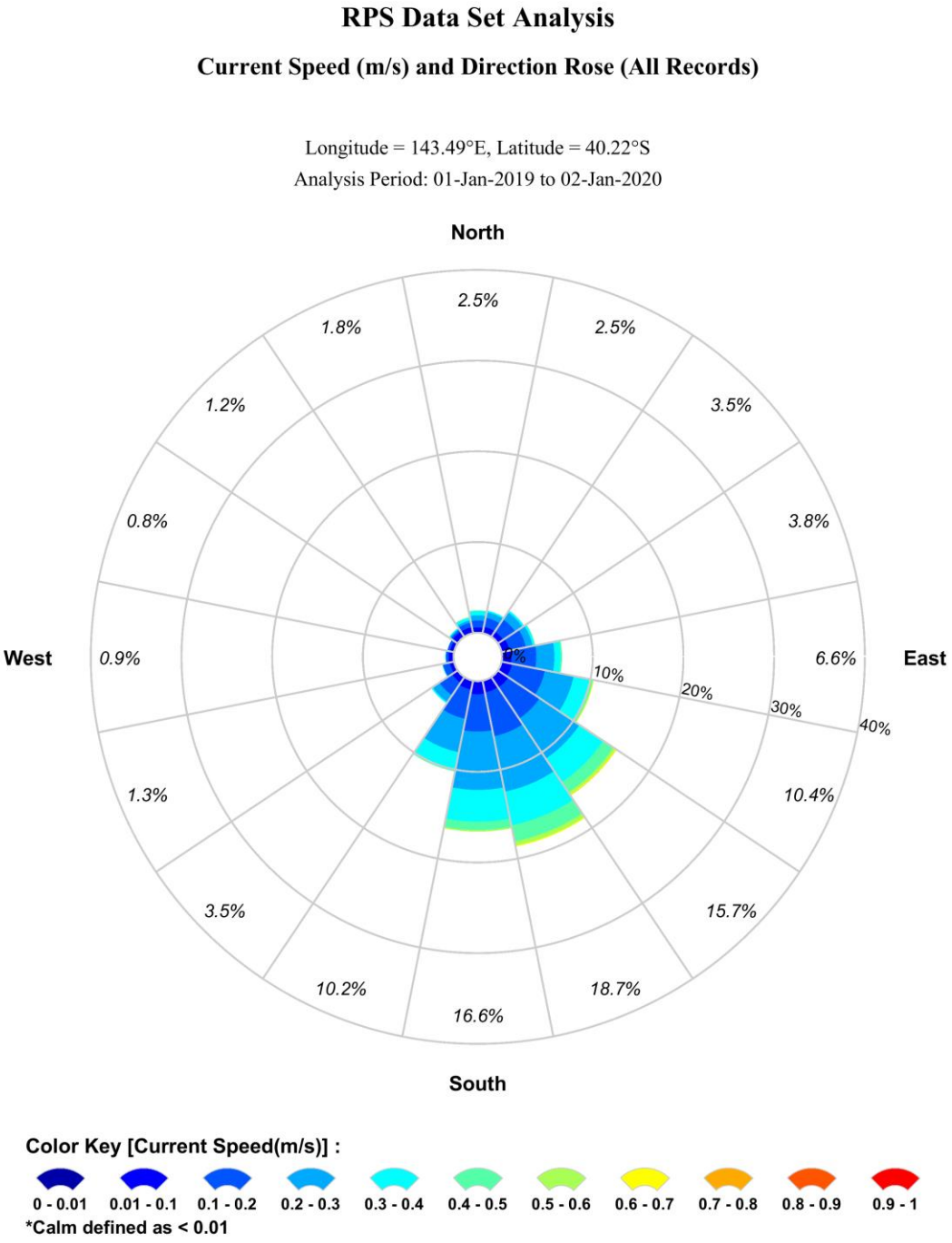


Figure 3.9 Total surface current rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

4 WIND DATA

To account for the influence of the wind on the hydrocarbons floating on the surface, wind data from 2010 to 2019 (inclusive) was sourced from the National Centre for Environmental Prediction (NCEP) Climate Forecast System Reanalysis dataset (CFSR; see Saha et al., 2010). The CFSR wind model includes observations from many data sources: surface observations, upper-atmosphere air balloon observations, aircraft observations and satellite observations. The model is capable of accurately representing the interaction between the earth's oceans, land and atmosphere. The gridded wind data output is available at a horizontal resolution of 0.25° (~33 km) and a temporal resolution of 1 hour.

Figure 4.1 is a screenshot illustrating the spatial resolution of the CFSR modelled wind data.

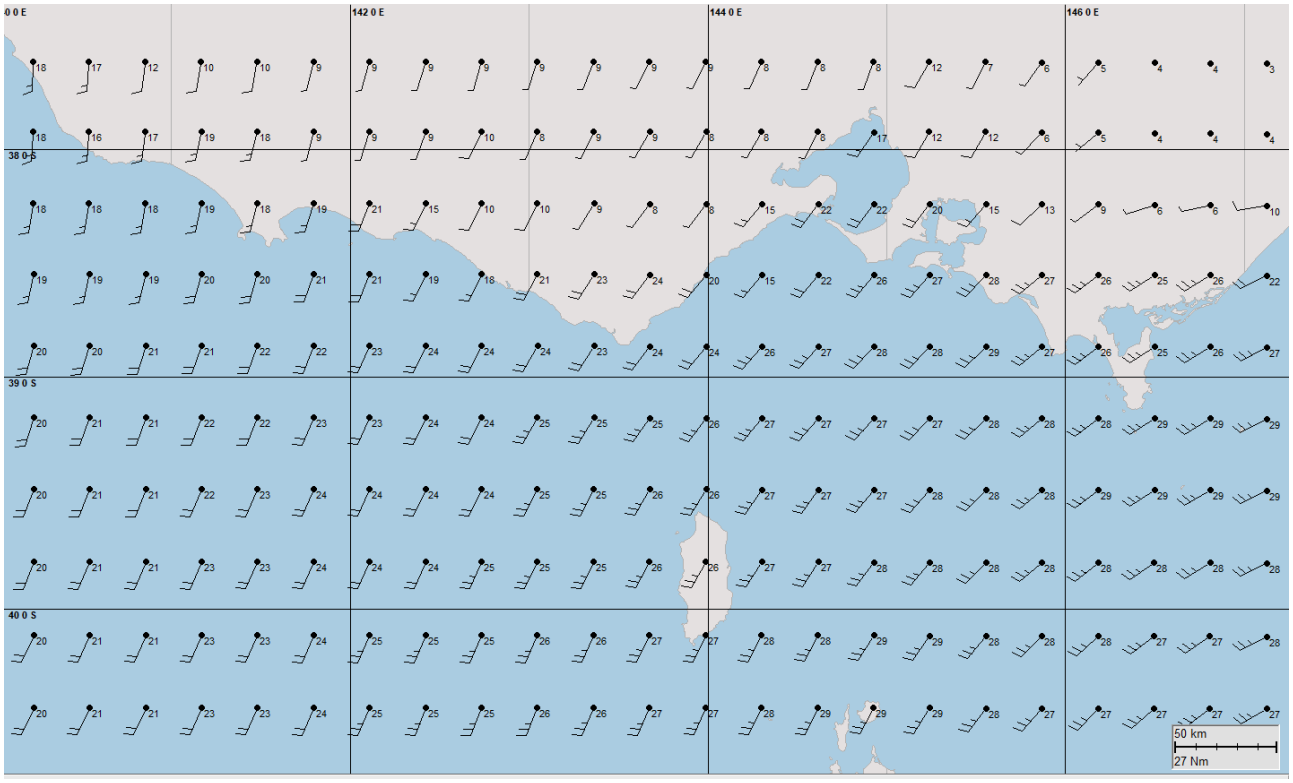


Figure 4.1 Spatial resolution of the CFSR modelled wind data used as input into the oil spill model.

Figure 4.2 to Figure 4.4 shows the monthly wind rose distributions derived from the CFSR nodes closest to the release locations while Figure 4.5 to Figure 4.7 illustrate the total current rose distribution.

Note that the atmospheric convention for defining wind direction, that is, the direction the wind blows from, is used to reference wind direction throughout this report. Each branch of the rose represents wind coming from that direction, with north to the top of the diagram. Sixteen directions are used. The branches are divided into segments of different colour, which represent wind speed ranges from that direction. Speed ranges of 3 knots are predominantly used in these wind roses. The length of each segment within a branch is proportional to the frequency of winds blowing within the corresponding range of speeds from that direction.

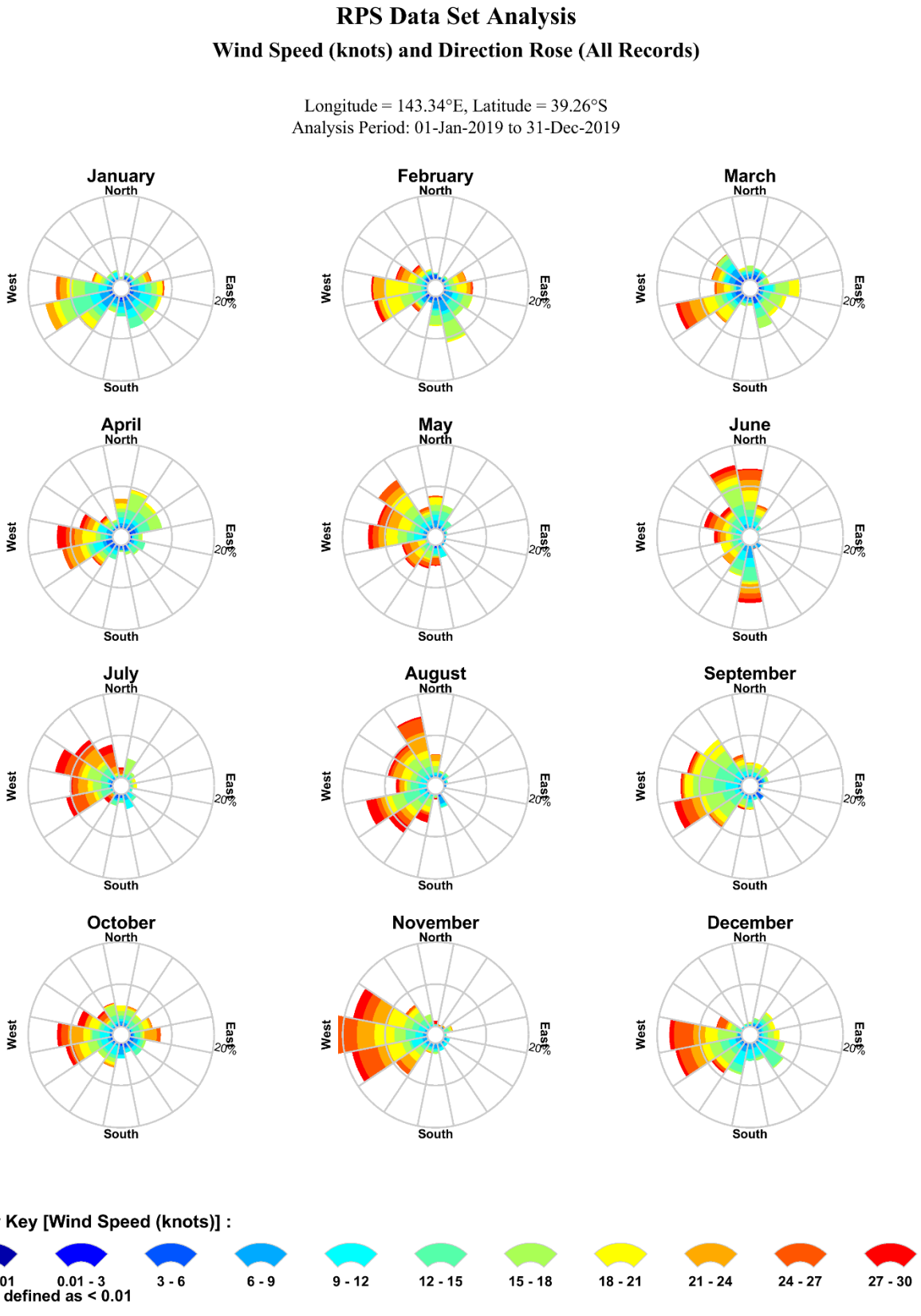


Figure 4.2 Monthly wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

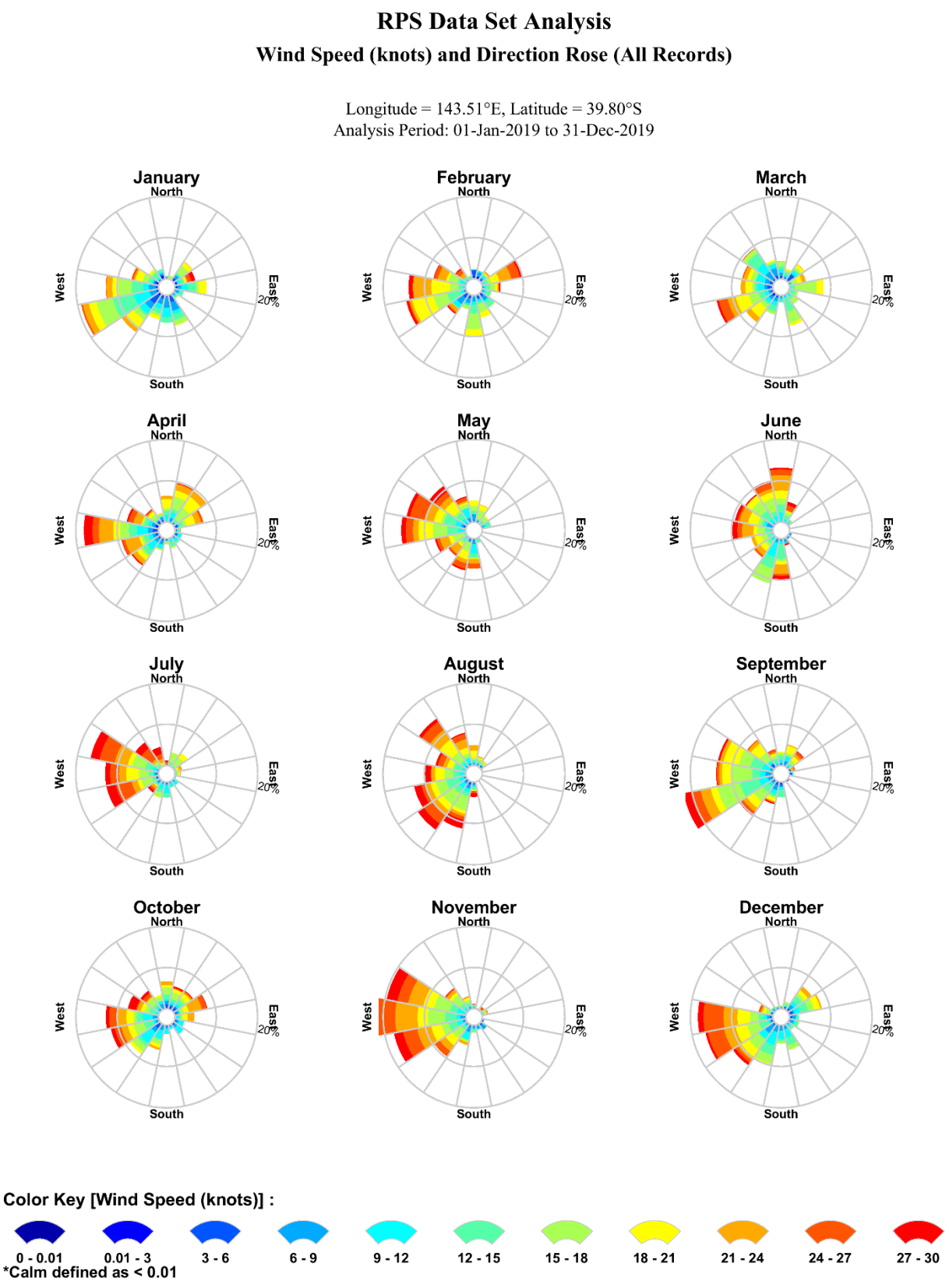


Figure 4.3 Monthly wind rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

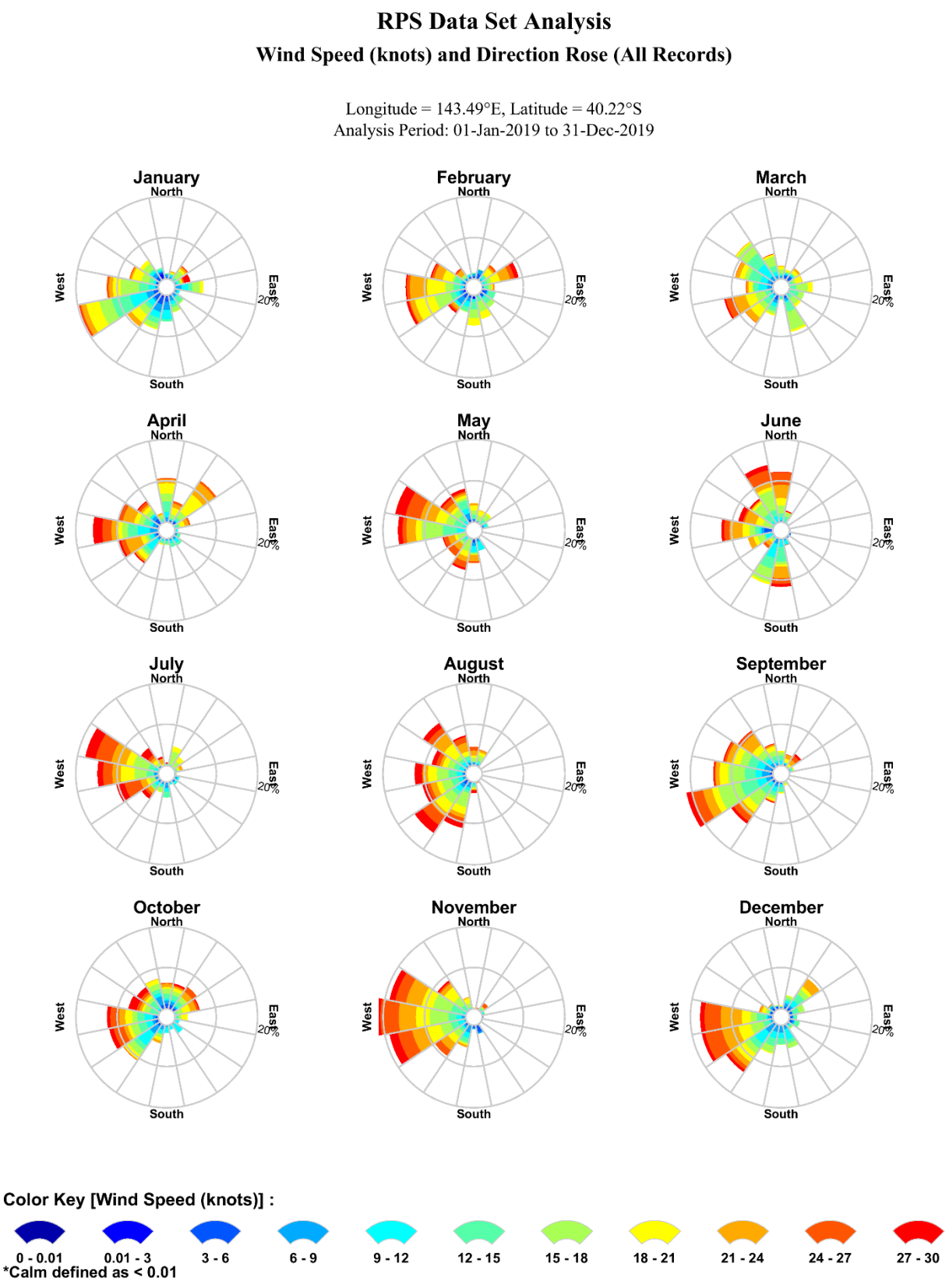


Figure 4.4 Monthly wind rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

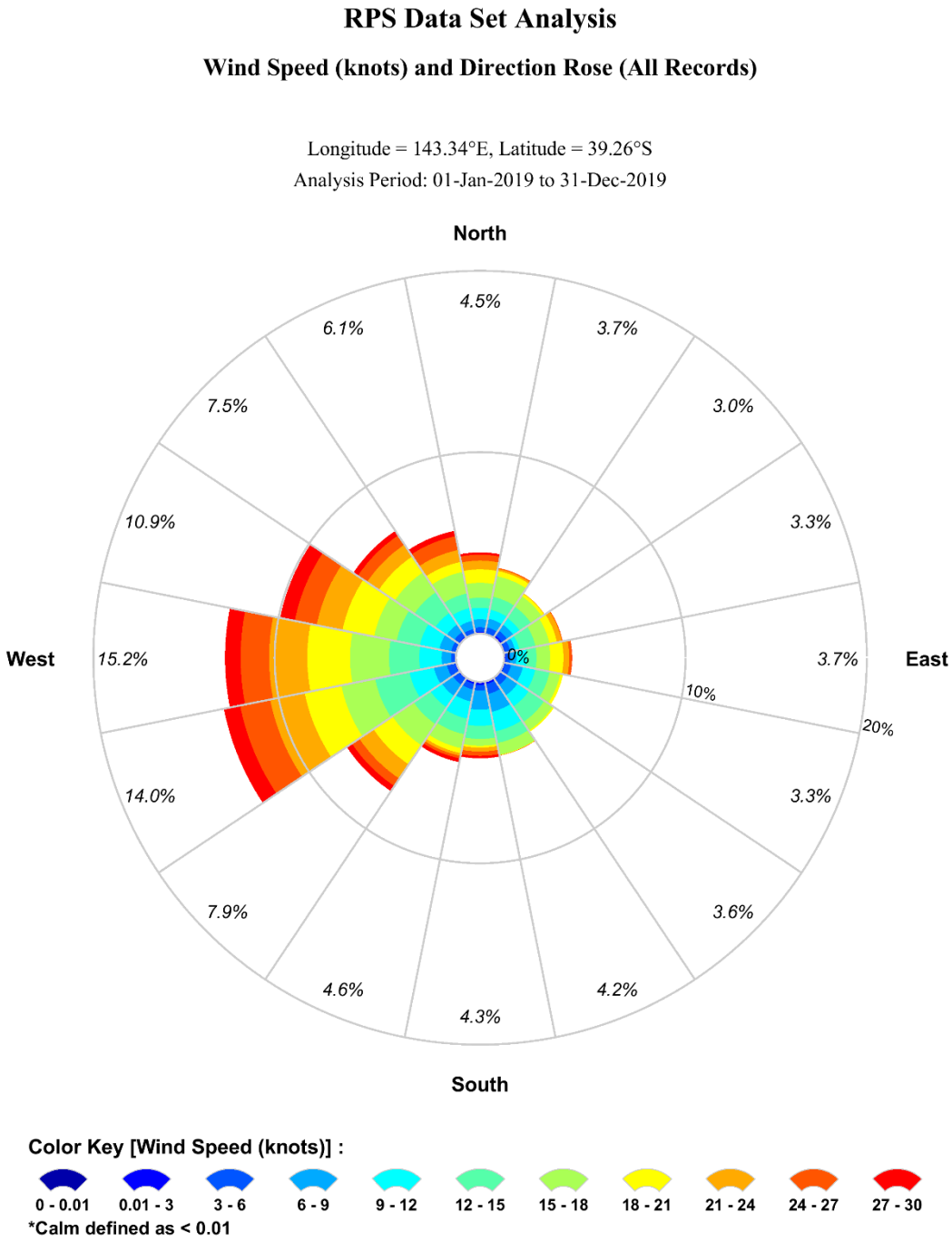


Figure 4.5 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

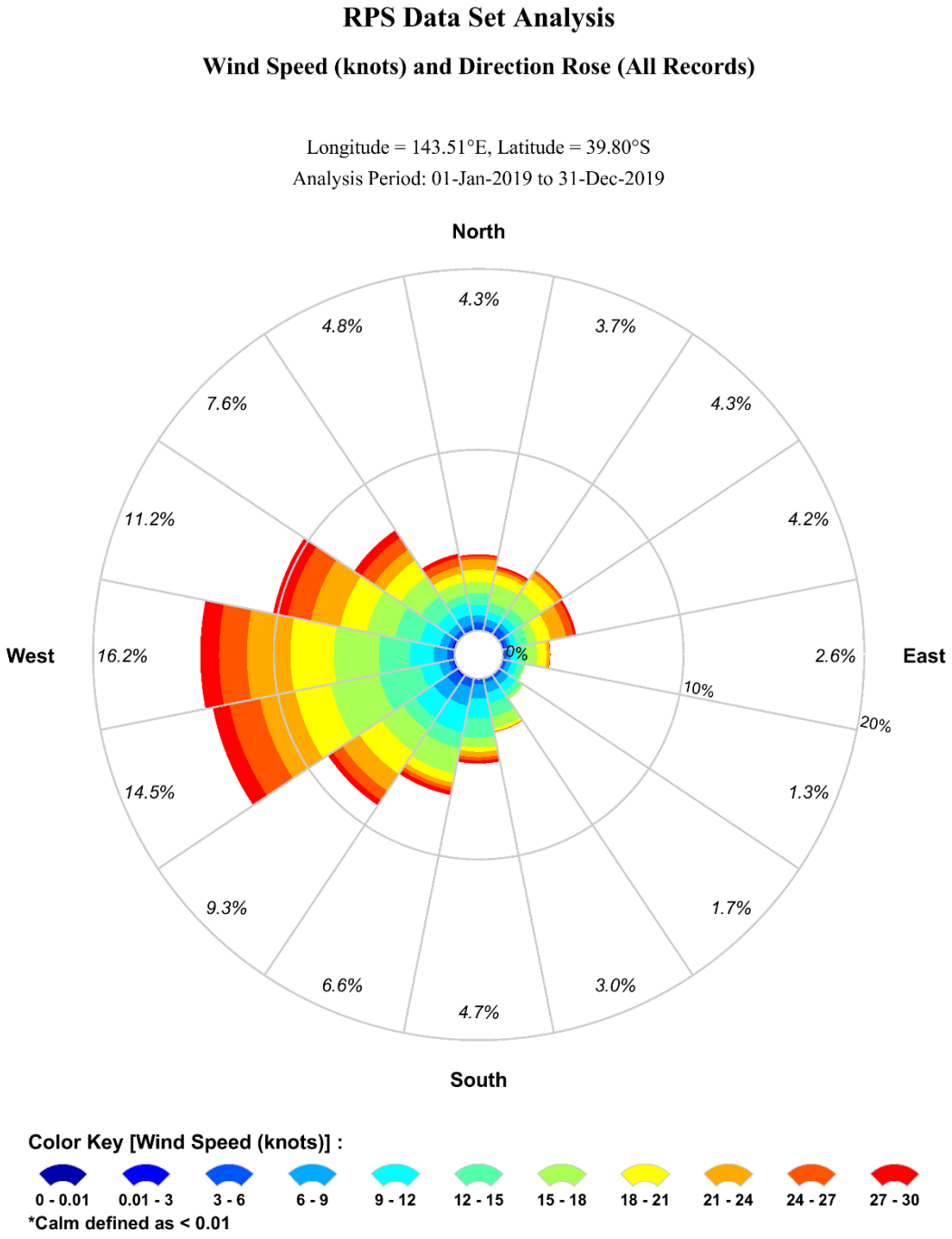


Figure 4.6 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

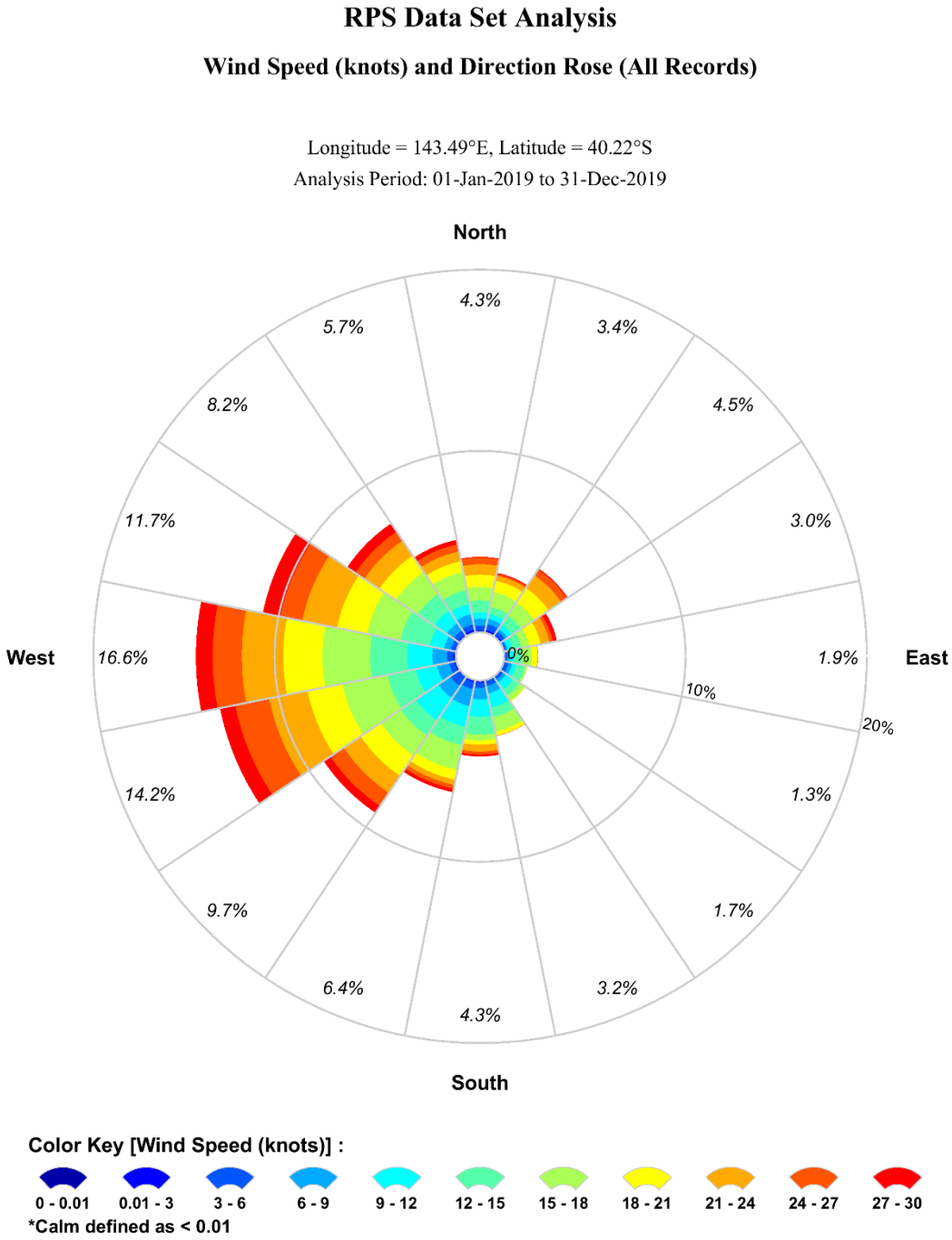


Figure 4.7 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

5 WATER TEMPERATURE AND SALINITY

Monthly water temperature and salinity data was obtained from the World Ocean Atlas 2013 database produced by the National Oceanographic Data Centre (National Oceanic and Atmospheric Administration) and its co-located World Data Center for Oceanography (Levitus et al. 2013). The data is used as input into oil spill model.

The monthly mean sea surface temperature and salinity values in the 0-5 m depth layer are presented in Table 5-1. The monthly average sea surface temperatures ranged between 12.8°C (September, release location 3) and 18.4°C (March, release location 2). The monthly average salinity values remain relatively consistent ranging between 35.1 psu and 35.6 psu.

Figure 5.1 shows the monthly water temperature and salinity profiles adjacent to the release locations.

Table 5-1 Monthly average sea surface temperature and salinity adjacent the release locations.

Release Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Temperature (°C)	17.6	17.4	18.1	16.5	15.8	15.1	14.8	13.4	13.0	14.4	14.3	15.7
	Salinity (psu)	35.3	35.1	35.5	35.3	35.3	35.2	35.6	35.3	35.4	35.4	35.4	35.4
2	Temperature (°C)	17.4	17.6	18.4	16.5	15.2	15.1	14.8	13.5	13.3	14.1	14.4	15.7
	Salinity (psu)	35.3	35.2	35.6	35.3	35.3	35.3	35.6	35.3	35.4	35.4	35.4	35.4
3	Temperature (°C)	16.5	17.0	17.6	15.8	14.4	14.0	14.1	13.0	12.8	13.3	13.9	15.3
	Salinity (psu)	35.2	35.1	35.4	35.2	35.2	35.2	35.4	35.2	35.3	35.3	35.3	35.3

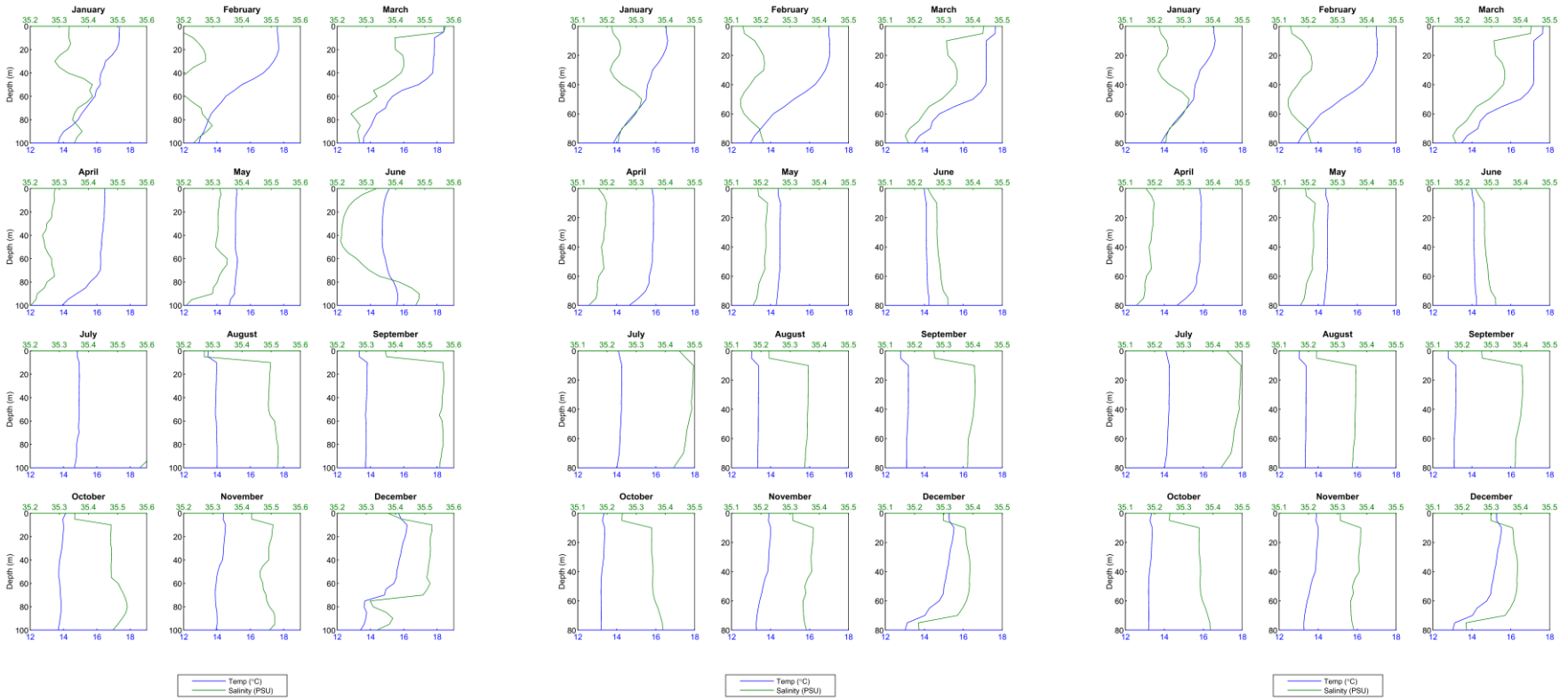


Figure 5.1 Monthly water temperature (blue line) and salinity (green line) profiles for Location 1 (left), Location 2 (middle) and Location 3 (right). Depth of 0 m is the water surface.

6 NEAR-FIELD MODEL – OILMAP DEEP

The LOWC scenario is a high-pressure release of mostly gas, condensate and small volume of condensed water. Where gas is released with condensate, the buoyancy of the expanding gas cloud will entrain ambient seawater and propel the droplets towards the surface at a faster rate than would occur from the relative buoyancy of the oil alone. Furthermore, The turbulence generated by such an intense discharge will tend to break the condensate up into droplets of various sizes.

To define the near-field plume dynamics, the subsea blowout model, OILMAP-DEEP, was applied. The model simulates the plume rise dynamics in two phases, the initial jet phase and the buoyant plume phase. The initial jet phase governs the plume dynamics directly above the subsurface release location and is predominately driven by the exit velocity. During this phase, the hydrocarbon droplet size and distribution is calculated. Next, the rise dynamics are dominated by the buoyant nature of the plume until the termination of the plume phase (known as the trapping depth). At this point, the results from OILMAP-DEEP (including plume trapping depth, plume diameter and droplet size distribution) are integrated into the far-field model SIMAP to simulate the rise and dispersion of the condensate droplets.

More details on the OILMAP-DEEP model, can be found in Spaulding et al. (2015). The model has been validated against observations from Deepwater Horizon as well as small and large-scale laboratory studies on subsurface oil releases (Brandvik et al., 2013, 2014; Belore, 2014; Spaulding et al., 2015; Li et al., 2017). Figure 6.1 illustrates the various stages of an example blowout plume.

Table 6-1 presents the input parameters for the OILMAP-DEEP model and key results related to the near-field plume dynamics. Inputs to the model included specification of the condensate density, viscosity and the discharge rate of the fluids: the diameter of the exit hole and the gas to oil ratio. The local temperature and salinity profiles of the water column were also specified to define the vertical density profile.

The subsea near-field modelling indicated that this pressurised discharge would cause the plume to breach the surface waters and the oil droplets would surface in less than a few minutes. The condensate droplets sizes were near identical at the three locations and range from 35 µm to 186 µm.

Table 6-1 Input data for the near field subsea modelling and key results for each location from the high-pressure LOWC release.

Input Variable	Location 1	Location 2	Location 3
Water depth (m)	93	100	114
Exit hole diameter (inch)	8.53		
Condensate release rate (m^3/day)	1,549		
Gas to condensate ratio (scf/bbl)	50,000		
Formation water flow rate (stb/day)	974		
Reservoir Temperature (°C)	130		
Well pressure at seafloor (psia)	136	146	166
Key results			
Plume execution depth (m BMSL)	0 (breach surface waters)		
Droplet sizes (µm)	35 - 153	38 - 164	43 - 186
Final plume diameter (m)	12.0	12.9	14.7

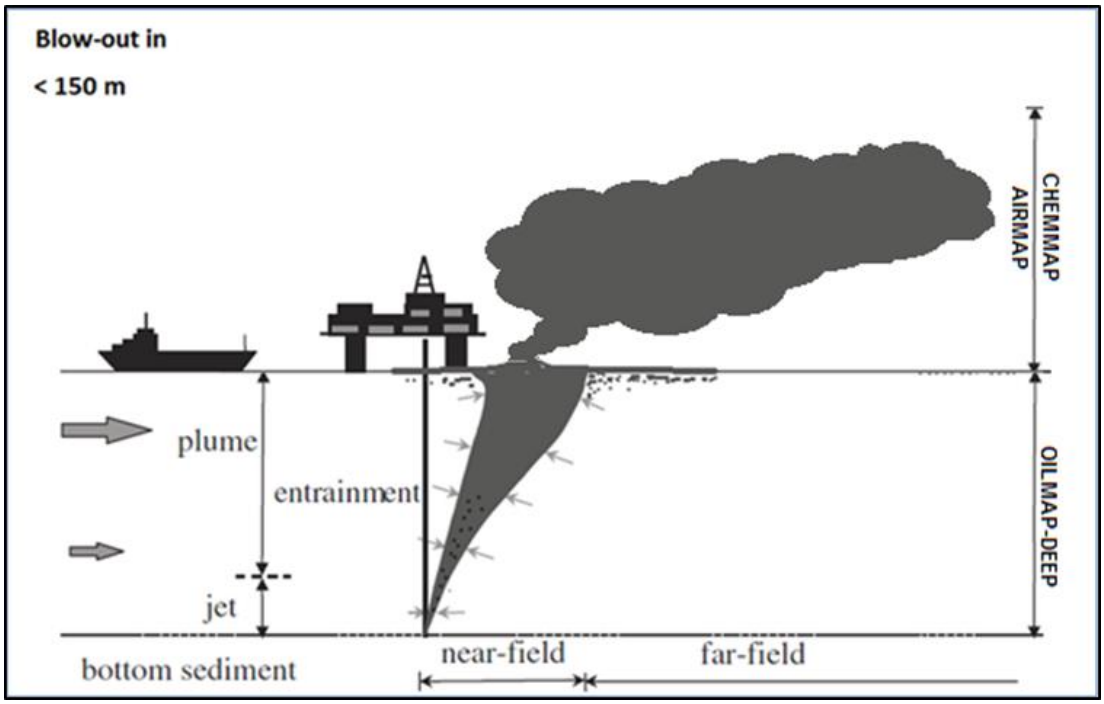


Figure 6.1 Example of a blowout plume illustrating the various stages of the plume in the water column (Source: Applied Science Associates, 2011).

7 OIL SPILL MODEL - SIMAP

The spill modelling was carried out using a purpose-developed oil spill trajectory and fates model, SIMAP (Spill Impact Mapping and Assessment Program). This model is designed to simulate the transport and weathering processes that affect the outcomes of hydrocarbon spills to the sea, accounting for the specific oil type, spill scenario, and prevailing wind and current circulation patterns.

SIMAP is the evolution of the United States Environmental Protection Agency (US EPA) Natural Resource Damage Assessment model (French & Rines, 1997; French et al., 1999) and is designed to simulate the fate and effects of spilled oils and fuels for both the surface slick and the three-dimensional plume that is generated in the water column. SIMAP includes algorithms to account for both physical transport and weathering processes. The latter are important for accounting for the partitioning of the spilled mass over time between the water surface (surface slick), water column (entrained oil and dissolved compounds), atmosphere (evaporated compounds) and land (stranded oil). The model also accounts for the interaction between weathering and transport processes.

The physical algorithms calculate transport and spreading by physical forces, including surface tension, gravity and wind and current forces for both surface slicks and oil within the water column. The fates algorithms calculate all the weathering processes known to be important for oil spilled to marine waters. These include droplet and slick formation, entrainment by wave action, emulsification, dissolution of soluble components, sedimentation, evaporation, bacterial and photo-chemical decay and shoreline interactions. These algorithms account for the specific oil type being considered.

Entrainment is the physical process where globules of oil are transported from the sea surface into the water column by wind and wave-induced turbulence or be generated subsea by a pressurised discharge at depth. It has been observed that entrained oil is broken into droplets of varying sizes. Small droplets spread and diffuse into the water column, while larger ones rise rapidly back to the surface (Delvigne & Sweeney, 1988; Delvigne, 1991).

Dissolution is the process by which soluble hydrocarbons enter the water from a surface slick or from entrained droplets. The lower molecular weight hydrocarbons tend to be both more volatile and more soluble than those of higher molecular weight.

The formation of water-in-oil emulsions, or mousse, which is termed ‘emulsification’, depends on oil composition and sea state. Emulsified oil can contain as much as 80% water in the form of micrometre-sized droplets dispersed within a continuous phase of oil (Daling & Brandvik, 1991; Bobra, 1991; Daling et al., 1997; Fingas, 1995).

Evaporation can result in the transfer of large proportions of spilled oil from the sea surface to the atmosphere, depending on the type of oil (Gundlach & Boehm, 1981).

Evaporation rates vary over space and time dependent on the prevailing sea temperatures, wind and current speeds, the surface area of the slick and entrained droplets that are exposed to the atmosphere as well as the state of weathering of the oil. Evaporation rates will decrease over time, depending on the calculated rate of loss of the more volatile compounds. By this process, the model can differentiate between the fates of different oil types.

Decay (degradation) of hydrocarbons may occur as the result of photolysis, which is a chemical process energised by ultraviolet light from the sun, and by biological breakdown, termed biodegradation. Many types of marine organisms ingest, metabolise and utilise oil as a carbon source, producing carbon dioxide and water as by-products.

Entrainment, dissolution and emulsification rates are correlated to wave energy, which is accounted for by estimating wave heights from the sustained wind speed, direction and fetch (i.e. distance downwind from land barriers) at different locations in the domain. Dissolution rates are dependent upon the proportion of soluble, short-chained hydrocarbon compounds, and the surface area at the oil/water interface of slicks. Dissolution rates are also strongly affected by the level of turbulence. For example, dissolution rates will be relatively high at the site of the release for a deep-sea discharge at high pressure.

The SIMAP weathering algorithms include terms to represent these dynamic processes. Technical descriptions of the algorithms used in SIMAP and validations against real spill events are provided in French (1998), French et al. (1999) and French-McCay (2004).

Input specifications for oil types include density, viscosity, pour-point, distillation curve (volume of oil distilled off versus temperature) and the aromatic/aliphatic component ratios within given boiling point ranges. The model calculates a distribution of the oil by mass into the following components:

- Surface-bound or floating oil;
- Entrained oil (non-dissolved oil droplets that are physically entrained by wave action);
- Dissolved hydrocarbons (principally the aromatic and short-chained aliphatic compounds);
- Evaporated hydrocarbons;
- Sedimented hydrocarbons; and
- Decayed hydrocarbons.

8 CONDENSATE PROPERTIES

The characteristics for Thylacine condensate were based on a detailed assay, which was used as a proxy. Table 8-1 and Table 8-2 summarise the physical properties and boiling point ranges, respectively. Thylacine condensate has an API of 44.3, a density of 805 kg/m^3 (at 15ºC) and a low viscosity value of 0.875 cP.

The volatile to semi-volatile components (boiling point (BP) < 265 °C), which represent approximately 83% of the whole condensate is likely to evaporate over the first day if exposed to the atmosphere at local temperatures, leaving the less volatile portion (16%) to progressively evaporate more slowly. Only 1% of the condensate is considered persistent.

Thylacine condensate is categorised as a group I oil (non – persistent oil) according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges.

The heavier components (i.e low volatile portion) of the condensate will tend to entrain into the upper water column during the presence of moderate winds (> 10 knots) and can potentially remain entrained for as long as the winds persist. But can subsequently resurface when the winds ease, and waves abate.

Table 8-1 Physical properties for Thylacine condensate.

Characteristic	Thylacine condensate
Density (kg/m^3)	805 (at 15˚C)
API	44.3
Dynamic viscosity (cP)	9.95 (at 50°C)
Hydrocarbon property category	Group I
Hydrocarbon property classification	Non-persistent oil

Table 8-2 Boiling point ranges for Thylacine condensate.

Characteristics	Non-Persistent			Persistent
	Volatile (%)	*Semi-volatile (%)*	*Low-volatility (%)*	*Residual (%)*
Boiling point (°C)	*<180*	*180-265*	*265-380*	*>380*
Thylacine condensate	64.0	19.0	16.0	1.0

9 THRESHOLDS

The thresholds and their relationship to exposure for the sea surface, shoreline, and water column (entrained and dissolved hydrocarbons) are presented in Sections 9.1 to 9.3. Supporting justifications of the adopted thresholds applied during the study and additional context relating to the area of influence are also provided. It is important to note that the thresholds herein are based on NOPSEMA (2019).

9.1 Floating Exposure Thresholds

The modelling results can be presented to any levels; therefore, thresholds have been specified (based on scientific literature) to record floating oil exposure to the sea-surface at meaningful levels only, described in the following paragraphs.

The low threshold to assess the potential for floating oil exposure, was 1 g/m^2, which equates approximately to an average thickness of 1 µm, referred to as visible oil. Oil of this thickness is described as rainbow sheen in appearance, according to the Bonn Agreement Oil Appearance Code (Bonn Agreement, 2009; AMSA, 2014). Table 9-1 provides a description of the appearance in relation to exposure zone thresholds used to classify the zones of floating oil exposure. Figure 9.1 shows photographs highlighting the difference in appearance between a rainbow sheen and metallic sheen. The low threshold is considered below levels which would cause environmental harm and it is more indicative of the areas perceived to be affected due to its visibility on the sea surface and potential to trigger temporary closures of areas (i.e., fishing grounds) as a precautionary measure.

Ecological impact has been estimated to occur at 10 g/m^2, which equates to a film thickness of approximately 10 µm or 0.01 mm (French et al. 1996; French-McCay 2009) as this level of fresh oiling has been observed to mortally impact some birds through adhesion of oil to their feathers, exposing them to secondary effects such as hypothermia. The appearance of oil at this average thickness has been described as a metallic sheen (Bonn Agreement, 2009). Concentrations above 10 g/m^2 is also considered the lower actionable threshold, where oil may be thick enough for containment and recovery as well as dispersant treatment (AMSA, 2015).

Oil concentrations on the sea surface of 25 g/m^2 (or greater), would be harmful for all birds that have landed in an oil film due to potential contamination of their feathers, with secondary effects such as loss of temperature regulation and ingestion of oil through preening (Scholten et al., 1996; Koops et al., 2004). The appearance of oil at this thickness is also described as metallic sheen (Bonn Agreement, 2009). For this study the high exposure threshold was set to 50 g/m^2 and above based on NOPSEMA (2019). This threshold can also be used to inform response planning.

Table 9-2 defines the thresholds used to classify the zones of floating oil exposure reported herein.

Table 9-1 The Bonn Agreement Oil Appearance Code.

Code	Description Appearance	Layer Thickness Interval (g/m^2 or µm)	Litres per km^2
1	Sheen (silvery/grey)	0.04 – 0.30	40 – 300
2	Rainbow	0.30 – 5.0	300 – 5,000
3	Metallic	5.0 – 50	5,000 – 50,000
4	Discontinuous True Oil Colour	50 – 200	50,000 – 200,000
5	Continuous True Oil Colour	≥ 200	≥ 200,000

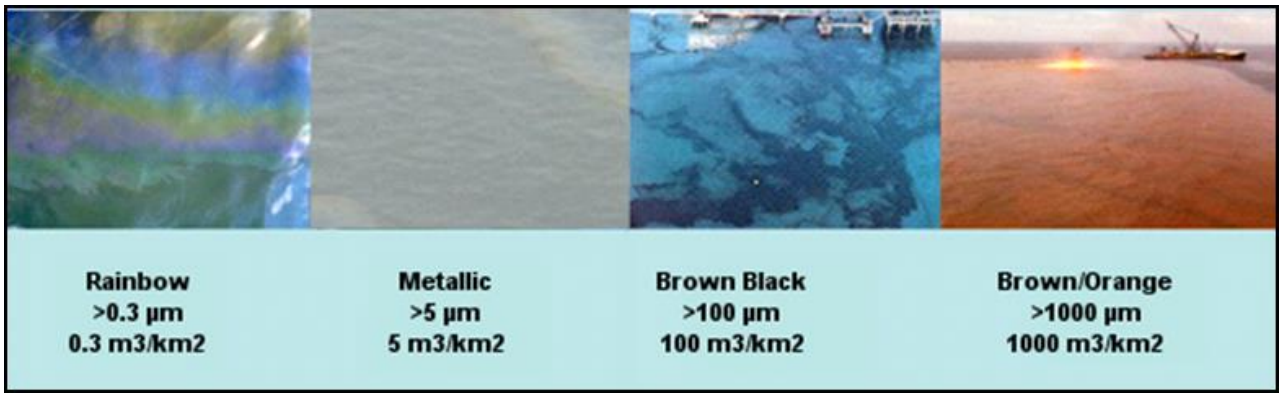


Figure 9.1 Photographs showing the difference between oil colour and thickness on the sea surface (source: adapted from Oil Spill Solutions, 2015).

Table 9-2 Floating oil exposure thresholds used in this report (in alignment with NOPSEMA (2019)).

Threshold level	Floating oil (g/m^2)	Description
Low	1	Approximates range of socio-economic effects and establishes planning area for scientific monitoring
Moderate	10	Approximates lower limit for harmful exposures to birds and marine mammals
High	50*	Approximates surface oil slick and informs response planning

* 50 g/m^2 also used to define the threshold for actionable floating oil.

9.2 Shoreline Accumulation Thresholds

There are many different types of shorelines, ranging from cliffs, rocky beaches, sandy beaches, mud flats and mangroves, and each of these influences the volume of oil that can remain stranded ashore and its thickness before the shoreline saturation point occurs. For instance, a sandy beach may allow oil to percolate through the sand, thus increasing its ability to hold more oil ashore over tidal cycles and various wave actions than an equivalent area of water; hence oil can increase in thickness onshore over time. A sandy beach shoreline was assumed as the default shoreline type for the modelling in this study, as it allows for the highest carrying capacity of oil (of the available open/exposed shoreline types). Hence the results are considered conservative (i.e., worst-case) given that a large part of the shoreline in the study area (especially the western part of the Joseph Bonaparte Gulf) is characterised by exposed rocky shorelines, with southern parts characterised by tidal mudflats and mangroves and eastern shorelines containing more sandy beaches.

Previous risk assessment studies, French-McCay et al. (2005a; 2005b) used a threshold of 10 g/m^2 to assess the potential for shoreline accumulation. This is a conservative threshold used to define regions of socio-economic impact, such as triggering temporary closures of adjoining fisheries or the need for shore clean-up on beaches or man-made features/amenities (breakwaters, jetties, marinas, etc.). It would equate to approximately 2 teaspoons of hydrocarbon per square meter of shoreline accumulation. The appearance is described as a stain/film. On that basis, the 10 g/m^2 shoreline accumulation threshold has been selected to define the zone of potential “low shoreline accumulation”.

French et al. (1996) and French-McCay (2009) define a shoreline oil accumulation threshold of 100 g/m^2, or above, would potentially harm shorebirds and wildlife (fur-bearing aquatic mammals and marine reptiles on or along the shore) based on studies for sub-lethal and lethal impacts. This threshold has been used in previous environmental risk assessment studies (see French-McCay, 2003; French-McCay et al., 2004, French-McCay et al., 2011; 2012; NOAA, 2013). Additionally, a shoreline concentration of 100 g/m^2, or above, is the minimum concentration that the oil can be effectively cleaned according to AMSA (2015). This threshold equates to approximately ½ a cup of oil per square meter of shoreline accumulation. The

appearance is described as a thin oil coat. Therefore, 100 g/m^2 has been selected to define the zone of potential “moderate shoreline accumulation”.

Observations by Lin & Mendelssohn (1996) demonstrated that loadings of more than 1,000 g/m^2 of hydrocarbon during the growing season would be required to impact marsh plants significantly. Similar thresholds have been found in studies assessing hydrocarbon impacts on mangroves (Grant et al., 1993; Suprayogi & Murray, 1999). This loading equates to approximately 1 litre of hydrocarbon per square meter of shoreline accumulation and the appearance is described as a hydrocarbon cover. A loading of 1,000 g/m^2 has been selected to define the zone of potential “high shoreline accumulation”.

These shoreline accumulation thresholds derived from extensive literature review (outlined in Table 9-3) align with the threshold values for oil spill modelling specified in NOPSEMA (2019).

Table 9-3 Thresholds used to assess shoreline accumulation.

Threshold level	Shoreline loading (g/m^2)	Description
Low (socioeconomic/sublethal)	10	Predicts potential for some socio-economic impact
Moderate	100*	Loading predicts area likely to require clean-up effort
High	1,000	Loading predicts area likely to require intensive clean-up effort

* 100 g/m^2 also used to define the threshold for actionable shoreline oil.

9.3 In-water Exposure Thresholds

Oil is a mixture of thousands of hydrocarbons of varying physical, chemical, and toxicological characteristics, and therefore, demonstrate varying fates and impacts on organisms. As such, for in-water exposure, the SIMAP model provides separate outputs for dissolved and entrained hydrocarbons from oil droplets. The consequences of exposure to dissolved and entrained components will differ because they have different modes and magnitudes of effect.

Entrained hydrocarbon concentrations were calculated based on oil droplets that are suspended in the water column, though not dissolved. The composition of this oil would vary with the state of weathering (oil age) and may contain soluble hydrocarbons when the oil is fresh. Calculations for dissolved hydrocarbons specifically calculates oil components which are dissolved in water, which are known to be the primary source of toxicity exerted by oil.

A complicating factor that should be considered when assessing the consequence of dissolved and entrained oil distributions is that there will be some areas where both physically entrained oil droplets and dissolved hydrocarbons co-exist. Higher concentrations of each will tend to occur close to the source where sea conditions can force mixing of relatively unweathered oil into the water column, resulting in more rapid dissolution of soluble compounds.

9.3.1 Dissolved Hydrocarbons

Laboratory studies have shown that dissolved hydrocarbons exert most of the toxic effects of oil on aquatic biota (Carls et al., 2008; Nordtug et al., 2011; Redman, 2015). The mode of action is a narcotic effect, which is positively related to the concentration of soluble hydrocarbons in the body tissues of organisms (French-McCay, 2002). Dissolved hydrocarbons are taken up by organisms directly from the water column by absorption through external surfaces and gills, as well as through the digestive tract. Thus, soluble hydrocarbons are termed “bioavailable”.

Hydrocarbon compounds vary in water-solubility and the toxicity exerted by individual compounds is inversely related to solubility, however bioavailability will be modified by the volatility of individual compounds (Nirmalakhandan & Speece, 1988; Blum & Speece, 1990; McCarty, 1986; McCarty et al., 1992a, 1992b;

McCarty & Mackay, 1993; Verhaar et al., 1992, 1999; Swartz et al., 1995; French-McCay, 2002; McGrath and Di Toro, 2009). Of the soluble compounds, the greatest contributor to toxicity for water-column and benthic organisms are the lower-molecular-weight aromatic compounds, which are both volatile and soluble in water. Although they are not the most water-soluble hydrocarbons within most oil types, the polynuclear aromatic hydrocarbons (PAHs) containing 2-3 aromatic ring structures typically exert the largest narcotic effects because they are semi-soluble and not highly volatile, so they persist in the environment long enough for significant accumulation to occur (Anderson et al., 1974, 1987; Neff & Anderson, 1981; Malins & Hodgins, 1981; McAuliffe, 1987; NRC, 2003). The monoaromatic hydrocarbons (MAHs), including the BTEX compounds (benzene, toluene, ethylbenzene, and xylenes), and the soluble alkanes (straight chain hydrocarbons) also contribute to toxicity, but these compounds are highly volatile, so that their contribution will be low when oil is exposed to evaporation and higher when oil is discharged at depth where volatilisation does not occur (French-McCay, 2002).

French-McCay (2002) reviewed available toxicity data, where marine biota was exposed to dissolved hydrocarbons prepared from oil mixtures, finding that 95% of species and life stages exhibited 50% population mortality (LC_{50}) between 6 and 400 ppb total PAH concentration after 96 hrs exposure, with an average of 50 ppb. Hence, concentrations lower than 6 ppb total PAH value should be protective of 97.5% of species and life stages even with exposure periods of days (at least 96 hours). Early life-history stages of fish appear to be more sensitive than older fish stages and invertebrates.

Exceedances of 10, 50 or 400 ppb over a 1 hour timestep (see Table 9-4) were applied in this study to indicate the increasing potential for sub-lethal to lethal toxic effects (or low to high), based on NOPSEMA (2019).

9.3.2 Entrained Hydrocarbons

Entrained hydrocarbons consist of oil droplets that are suspended in the water column and insoluble. Insoluble compounds in oil cannot be absorbed from the water column by aquatic organisms, therefore they are not bioavailable through absorption of compounds from the water. Exposure to these compounds would require routes of uptake other than absorption of soluble compounds. The route of exposure of organisms to whole oil alone include direct contact with tissues of organisms and uptake of oil by direct consumption, with potential for biomagnification through the food chain (NRC, 2003).

The 10 ppb threshold corresponds generally with the lowest trigger levels for chronic exposure for entrained hydrocarbons in the ANZECC & ARMCANZ (2000) water quality guidelines. Due to the requirement for relatively long exposure times (> 24 hours) for these concentrations to accumulate, they are likely to be more meaningful for juvenile fish, larvae and planktonic organisms that might be entrained (or otherwise moving) within the entrained plumes, or when entrained hydrocarbons adhere to organisms or are trapped against a shoreline for periods of several days or more.

This exposure zone is not considered to be of significant biological impact and is therefore outside the adverse exposure zone. This exposure zone represents the area contacted by the spill. This area does not define the area of influence as it is considered that the environment will not be affected by the entrained hydrocarbon at this level.

Thresholds of 10 ppb and 100 ppb were applied over a 1 hour time exposure (Table 9-4), to cover the range of thresholds outlined in ANZECC & ARMCANZ (2000) water quality guidelines and is per NOPSEMA (2019).

Table 9-4 Dissolved and entrained hydrocarbon exposure values assessed over a 1-hour time step, as per NOPSEMA (2019).

	Exposure level	In-water threshold (ppb)	Description
Dissolved hydrocarbons	Low	10	Establishes planning area for scientific monitoring based on potential for exceedance of water quality triggers
	Moderate	50	Approximates potential toxic effects, particularly sublethal effects to sensitive species
	High	400	Approximates toxic effects including lethal effects to sensitive species
Entrained hydrocarbons	Low	10	Establishes planning area for scientific monitoring based on potential for exceedance of water quality triggers
	High	100	As appropriate given oil characteristics for informing risk evaluation

9.4 Dispersion

A horizontal dispersion coefficient of 10 m^2/s was used to account for dispersive processes acting at the surface that are below the scale of resolution of the input current field, based on typical values for open waters (Okubo, 1971). Dispersion rates within the water column (applicable for entrained and dissolved plumes of hydrocarbons) were specified at 1 m^2/s, based on empirical data for the dispersion of hydrocarbon plumes (King & McAllister, 1998).

10 RECEPTORS

A range of environmental receptors and shorelines were assessed for floating oil exposure, shoreline contact and water column exposure (entrained and dissolved hydrocarbons) as part of the study (see Figure 10.1 to Figure 10.12). Receptor categories are shown in Table 10-1 which includes coastal and offshore islands grouped as shorelines. All other sensitive receptors other than submerged reefs, shoals and banks (RSB) were sourced from Australian Government Department of Agriculture, Water and the Environment (http://www.environment.gov.au/). Probabilities of exposure were separately calculated for each sensitive receptor area and have been tabulated.

Table 10-1 Summary of receptors assessed for potential oil exposure.

Receptor Category	Acronym	Hydrocarbon Exposure and Accumulation Assessment		
		Floating oil	Water Column	Shoreline
Australian Marine Park	AMP	✓	✓	×
Biologically Important Area	BIA	✓	✓	×
Conservation Park	CP	✓	✓	×
Interim Biogeographic Regionalisation for Australia bioregions	IBRA	✓	✓	×
Integrated marine and coastal regionalisation areas	IMCRA	✓	✓	×
Marine National Park	MNP	✓	✓	×
Marine Park	MP	✓	✓	×
Marine Sanctuary	MS	✓	✓	×
National Park	NP	✓	✓	×
National Parks Act Schedule 4 park or reserve	NPS4	✓	✓	×
Nature Reserve	NR	✓	✓	×
Ramsar Sites	Ramsar	✓	✓	×
Reefs, Shoals and Banks	RSB	✓	✓	×
Key Ecological Feature	KEF	✓	✓	×
State Waters	State Waters	✓	✓	×
Shorelines	Shore	✓ (Reported as: Nearshore Waters)	✓ (Reported as: Nearshore Waters)	✓

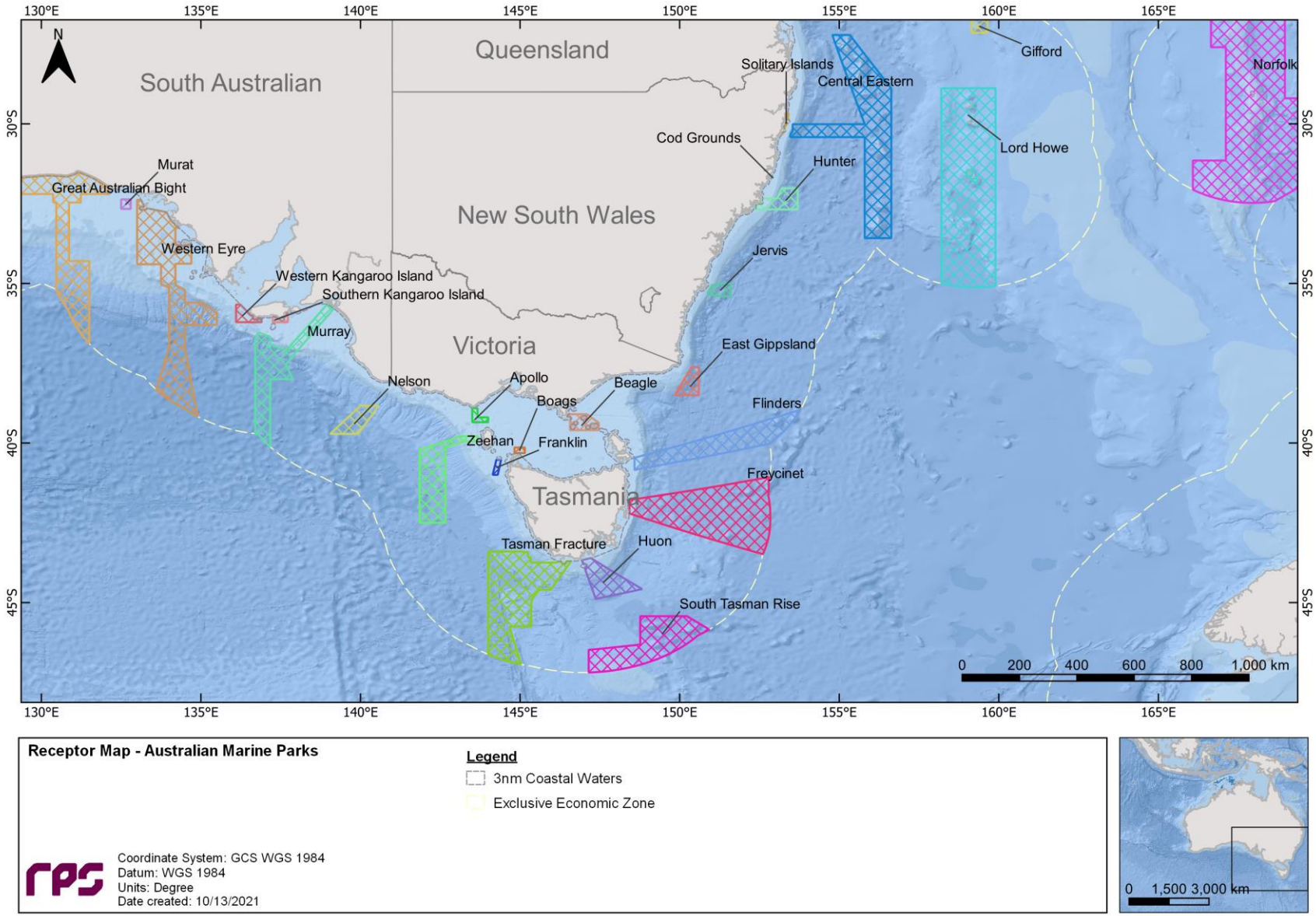


Figure 10.1 Receptor map for Australian Marine Parks (AMP).

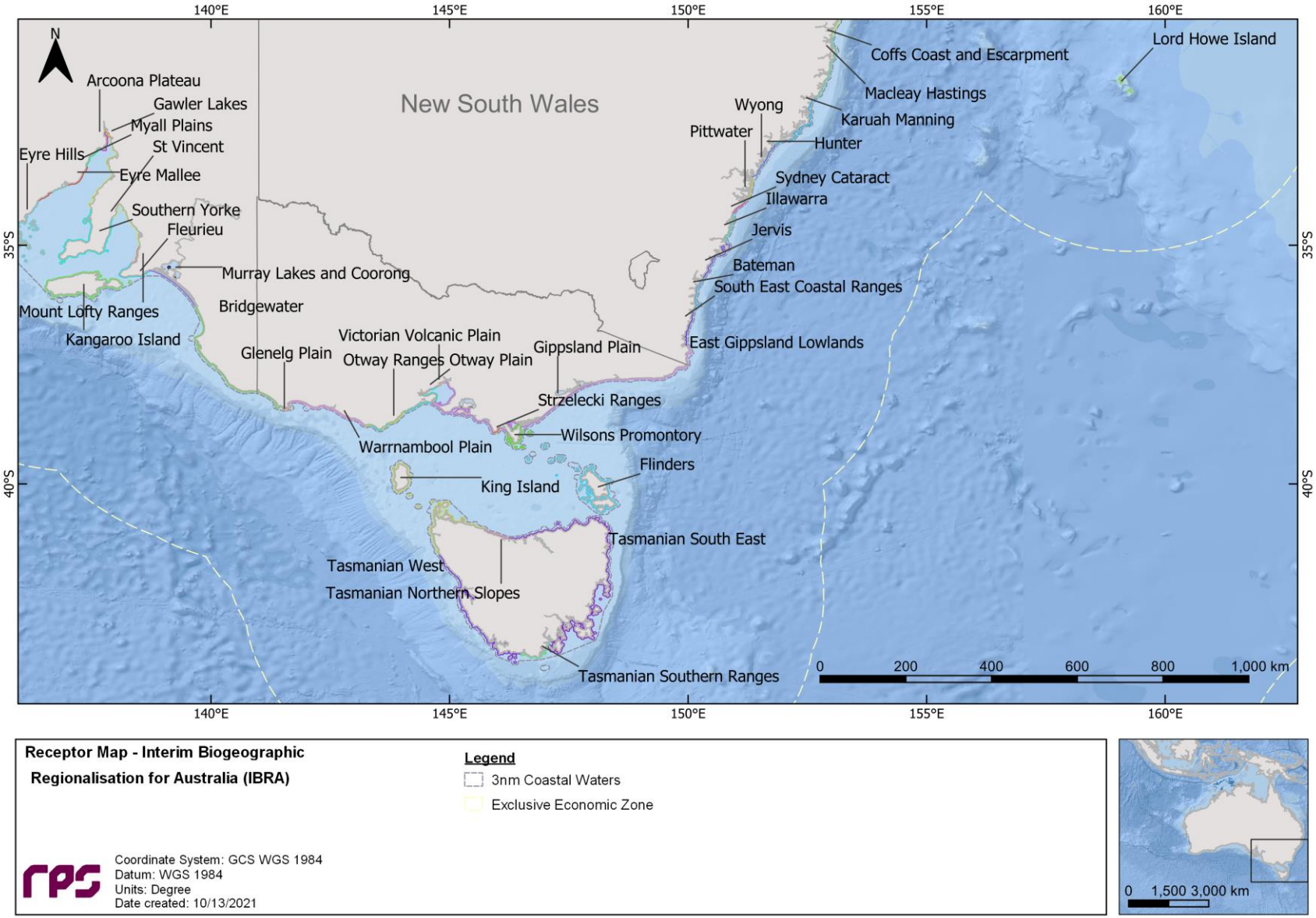


Figure 10.2 Receptor map for the Interim Biogeographic Regionalisation for Australia (IBRA) bioregions.

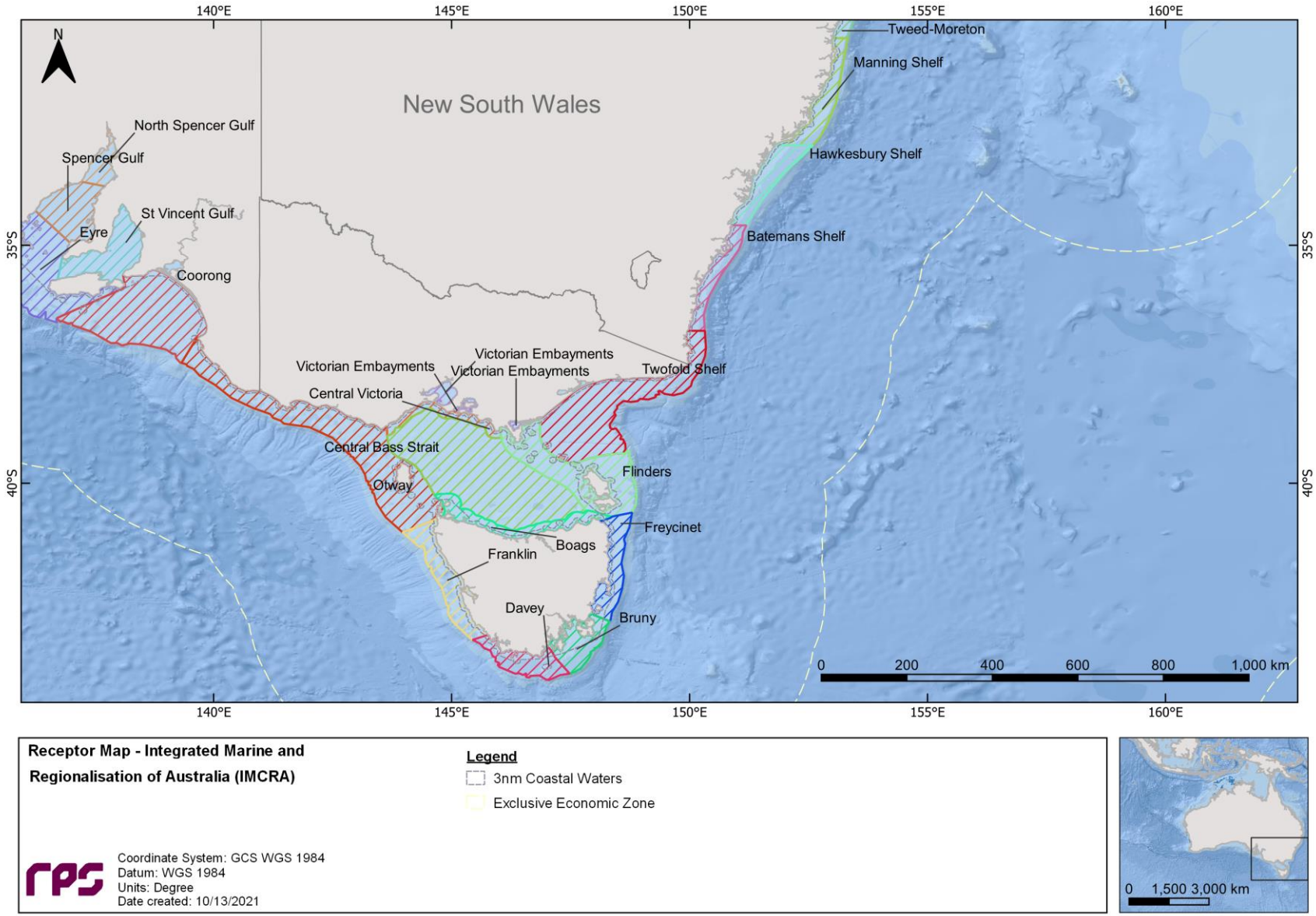


Figure 10.3 Receptor map for integrated marine and coastal regionalisation (IMCRA) areas.

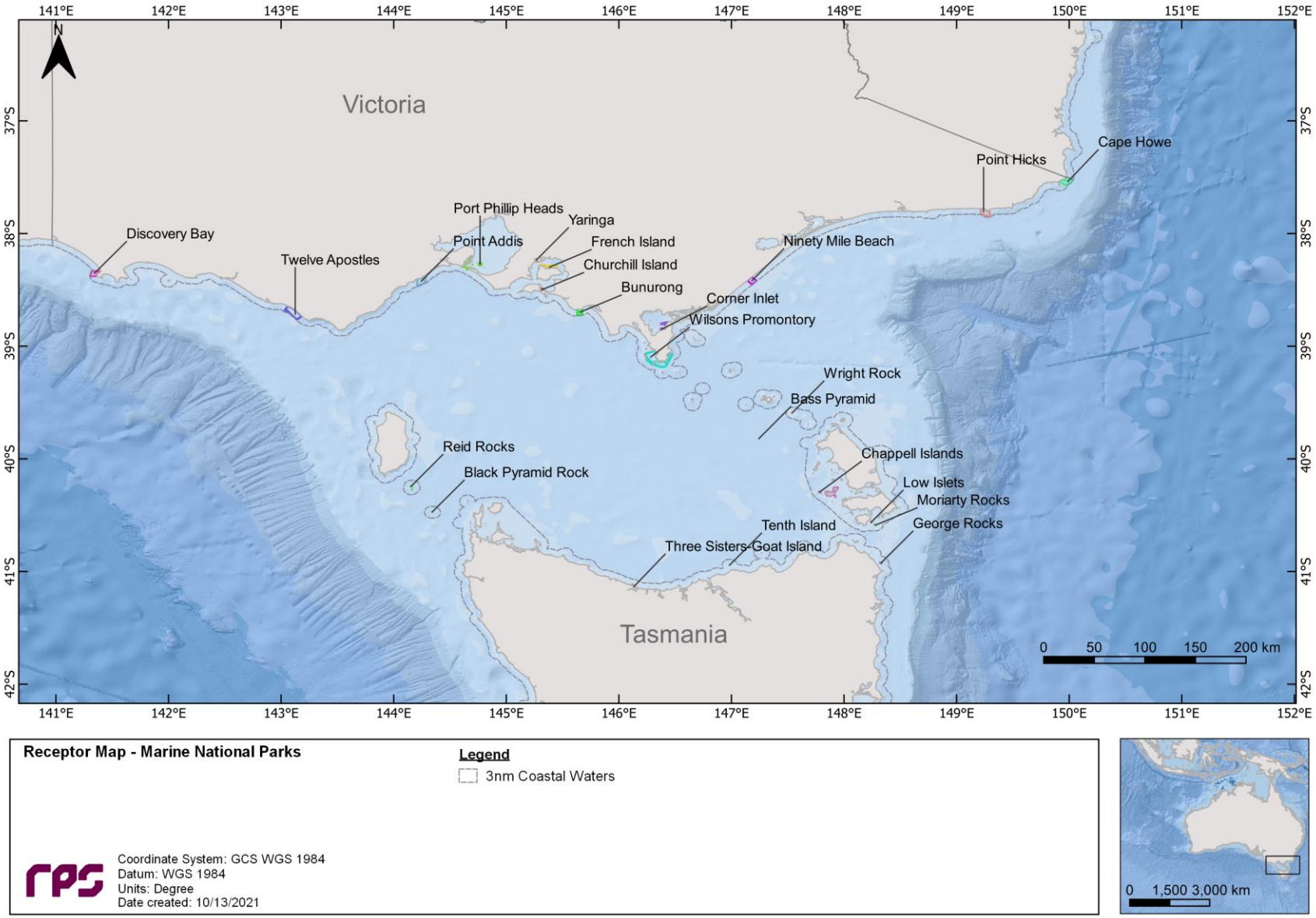


Figure 10.4 Receptor map for Marine National Parks (MNP).

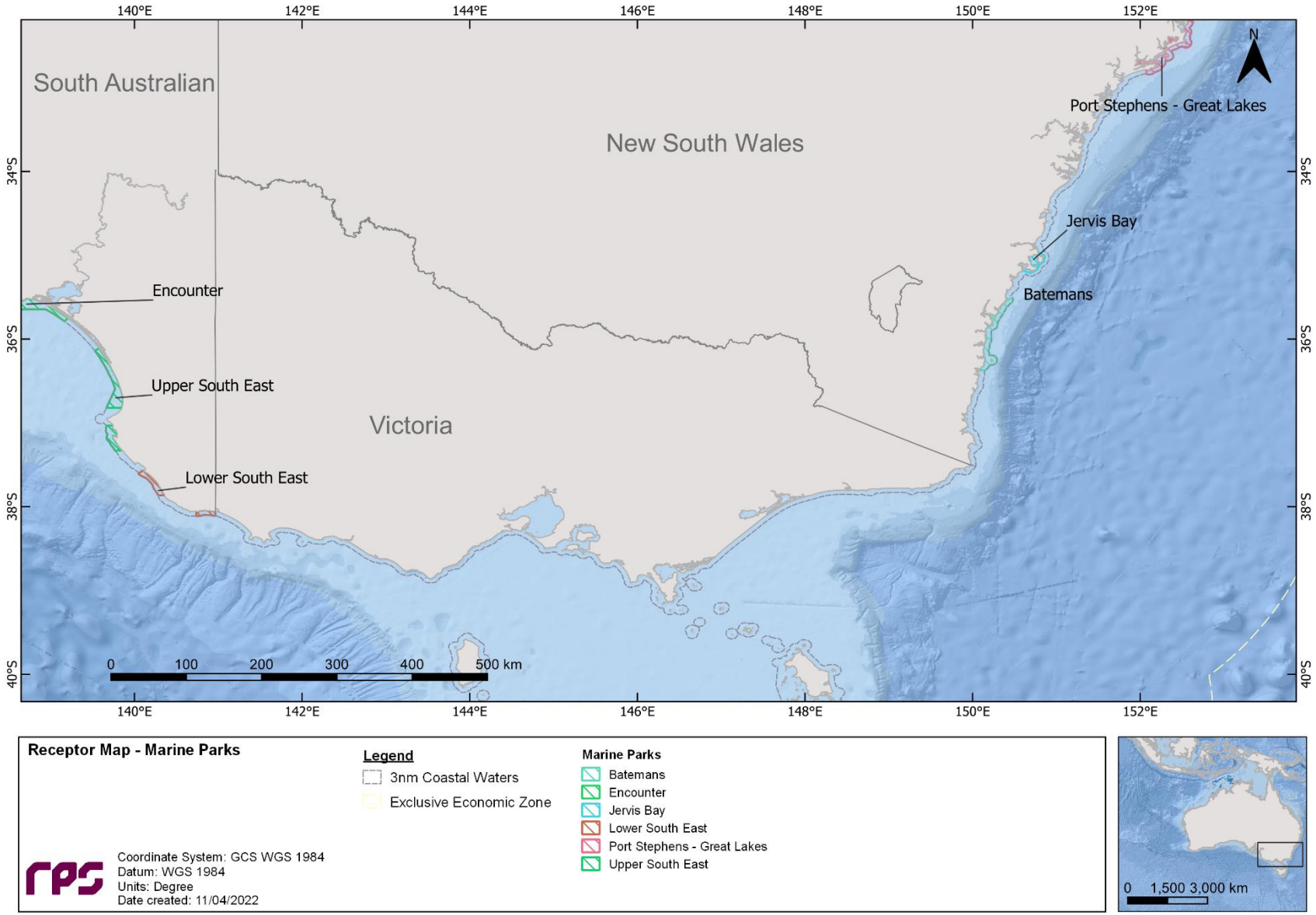


Figure 10.5 Receptor map for Marine Parks (MP).

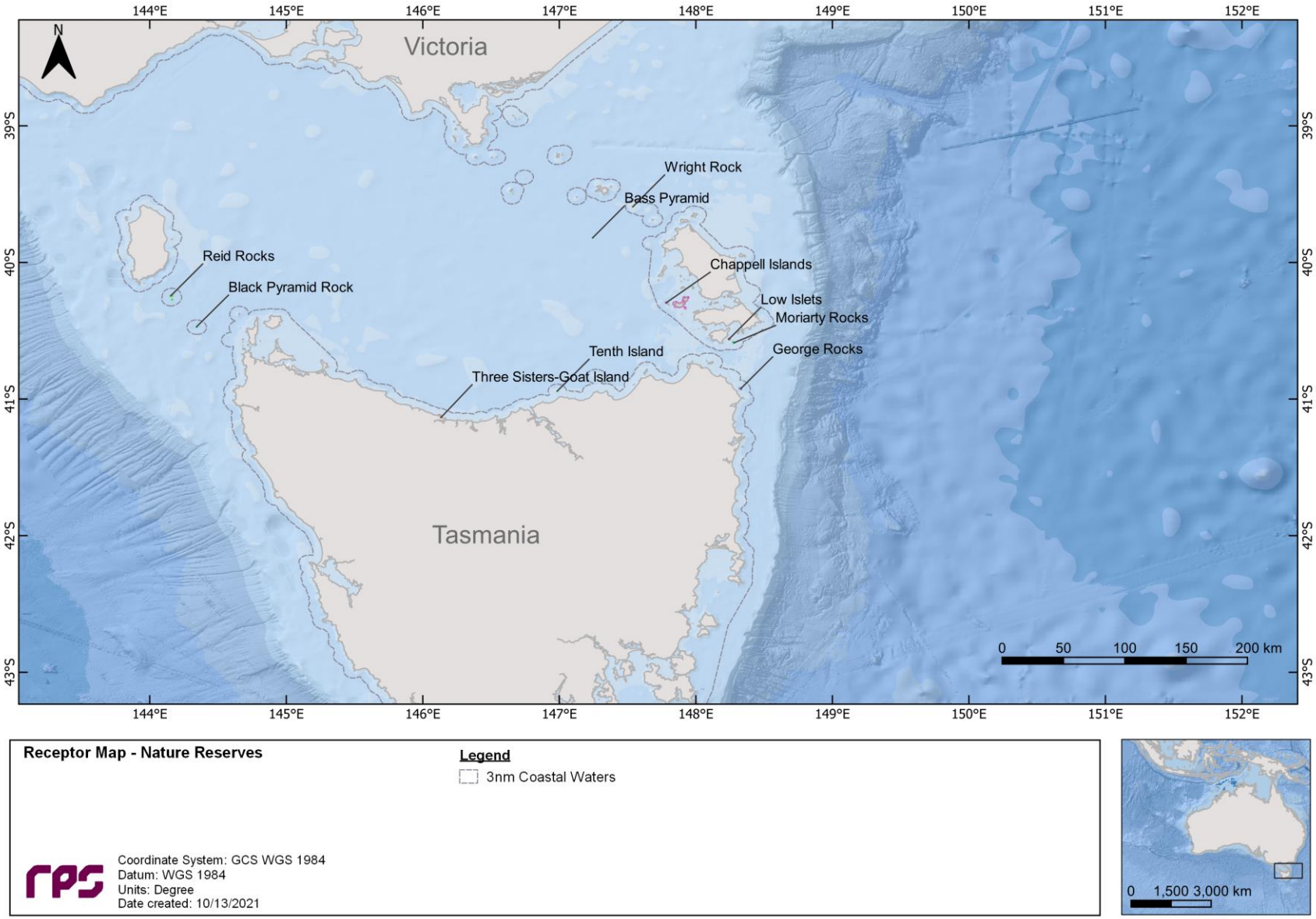


Figure 10.6 Receptor map for Nature Reserves (NR).

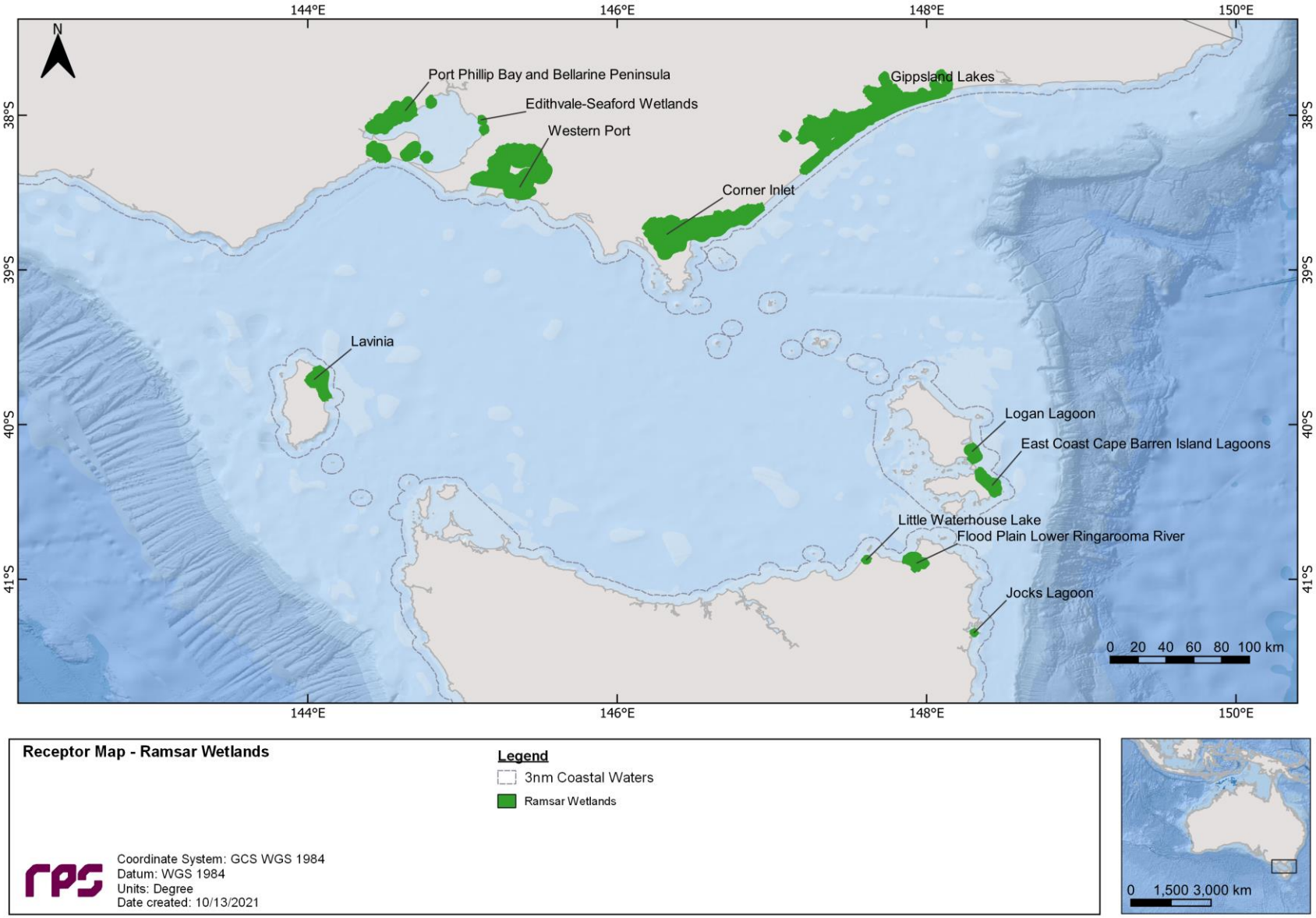


Figure 10.7 Receptor map for Ramsar Sites (Ramsar).

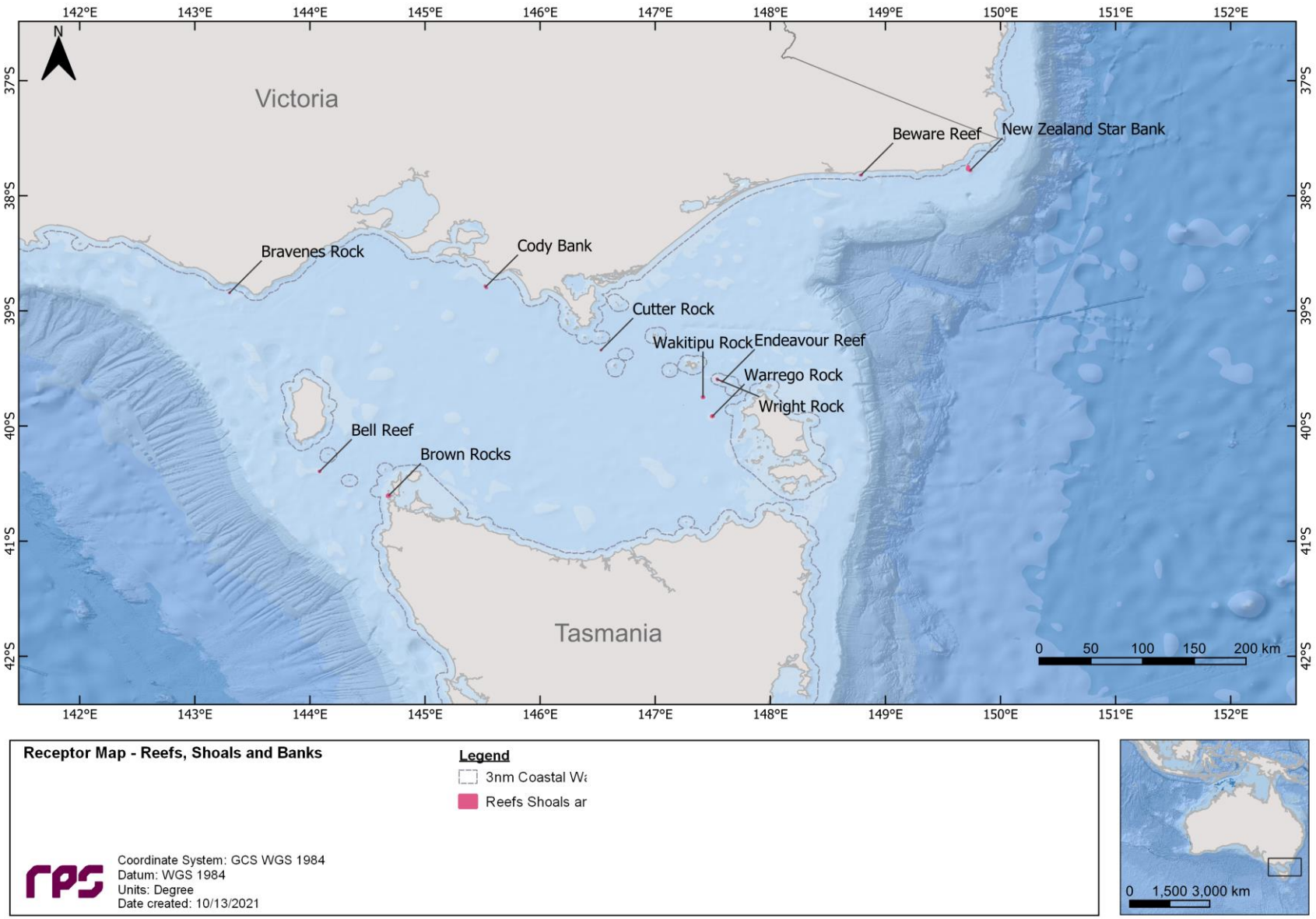


Figure 10.8 Receptor map for Reefs, Shoals and Banks (RSB).

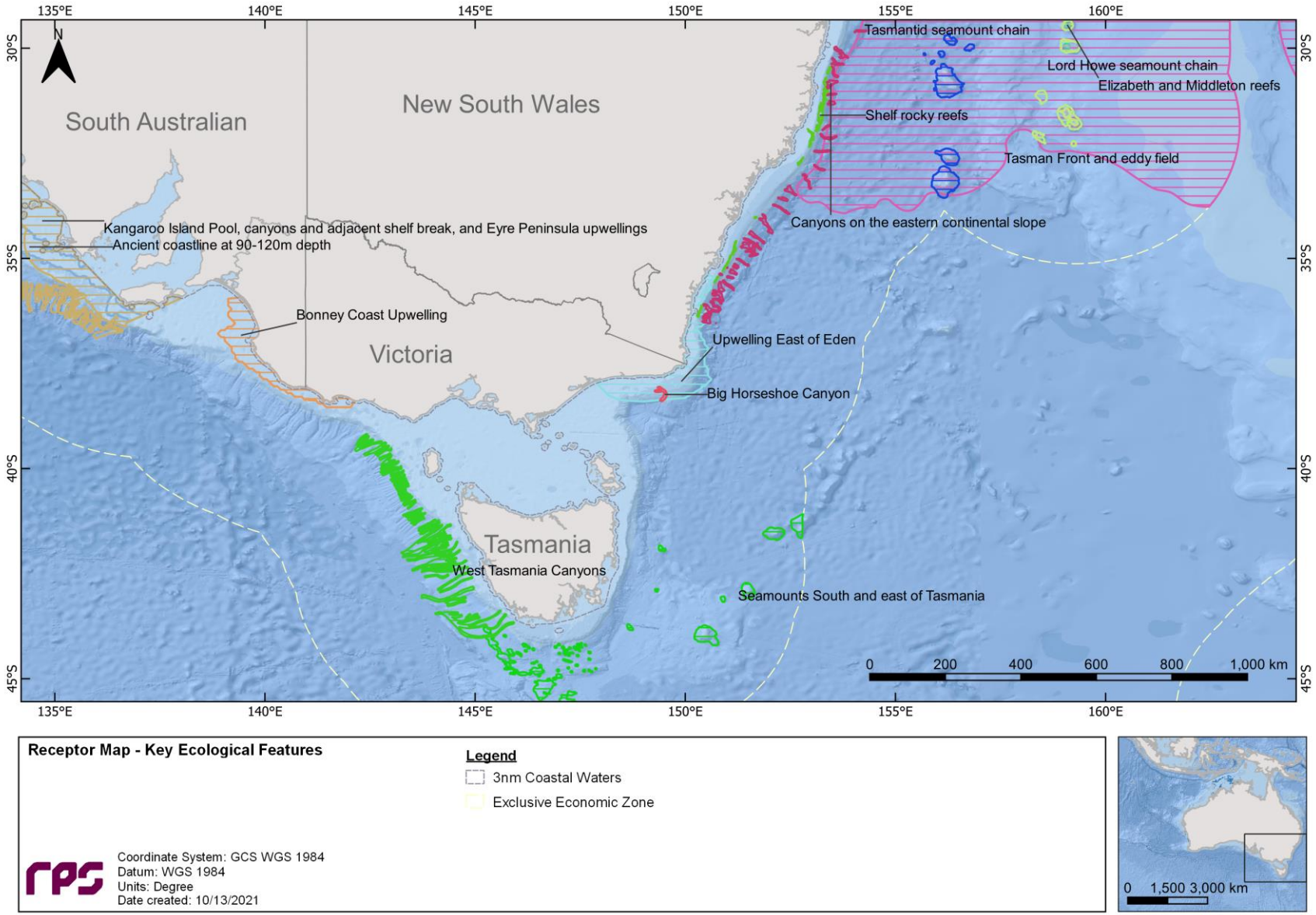


Figure 10.9 Receptor map for Key Ecological Features (KEF).

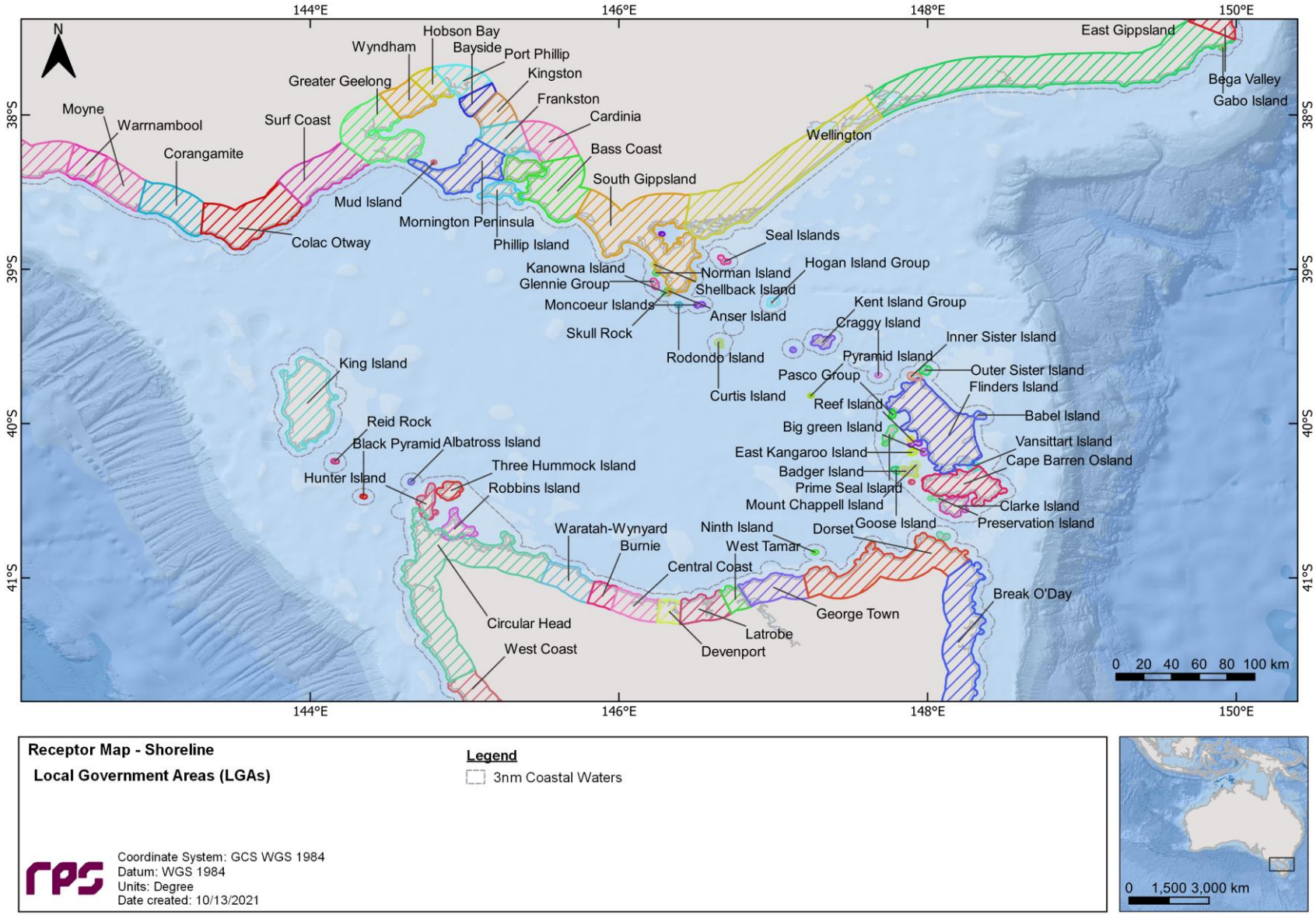


Figure 10.10 Receptor map for shorelines (1 of 3).

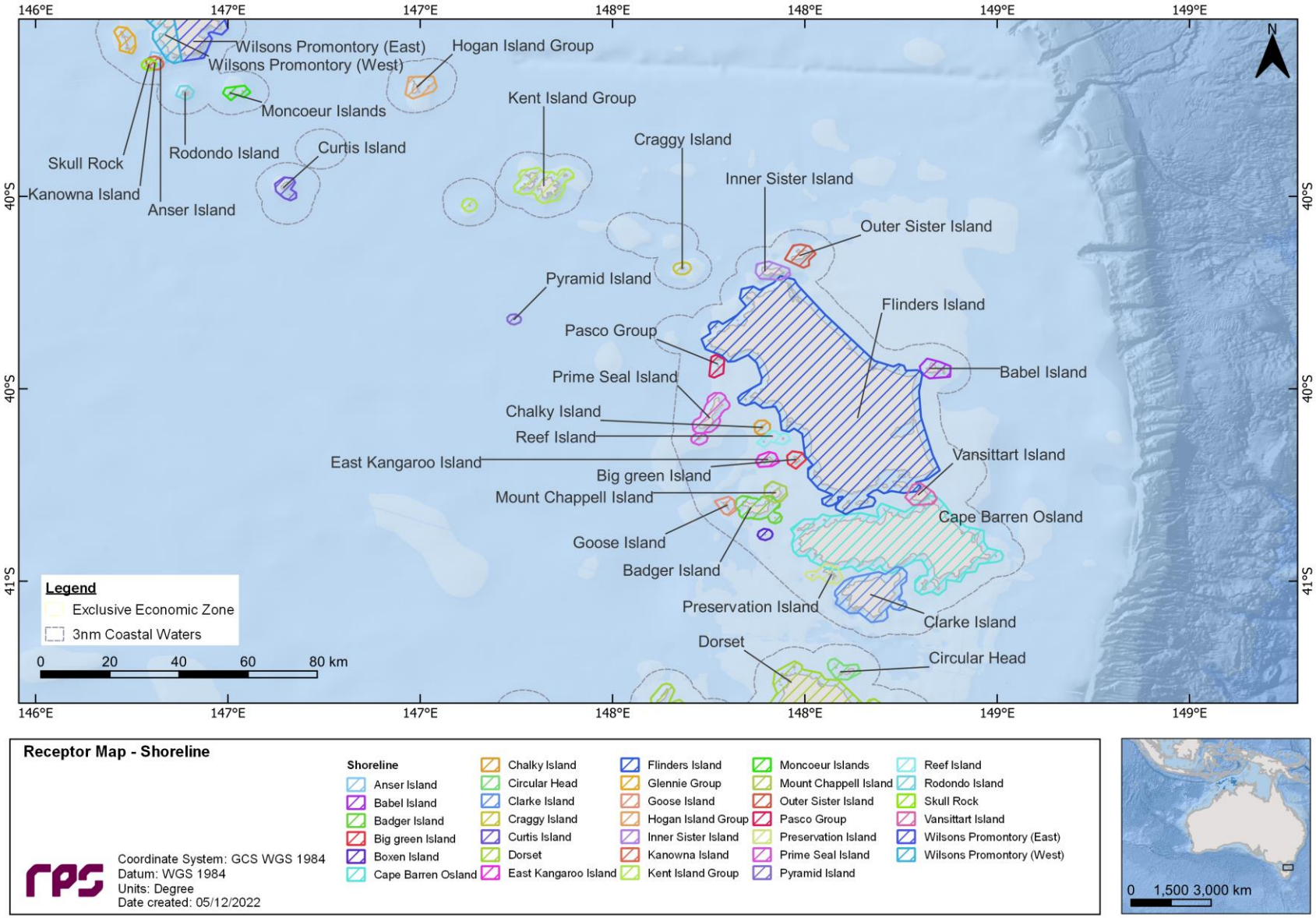


Figure 10.11 Receptor map for shorelines (2 of 3).

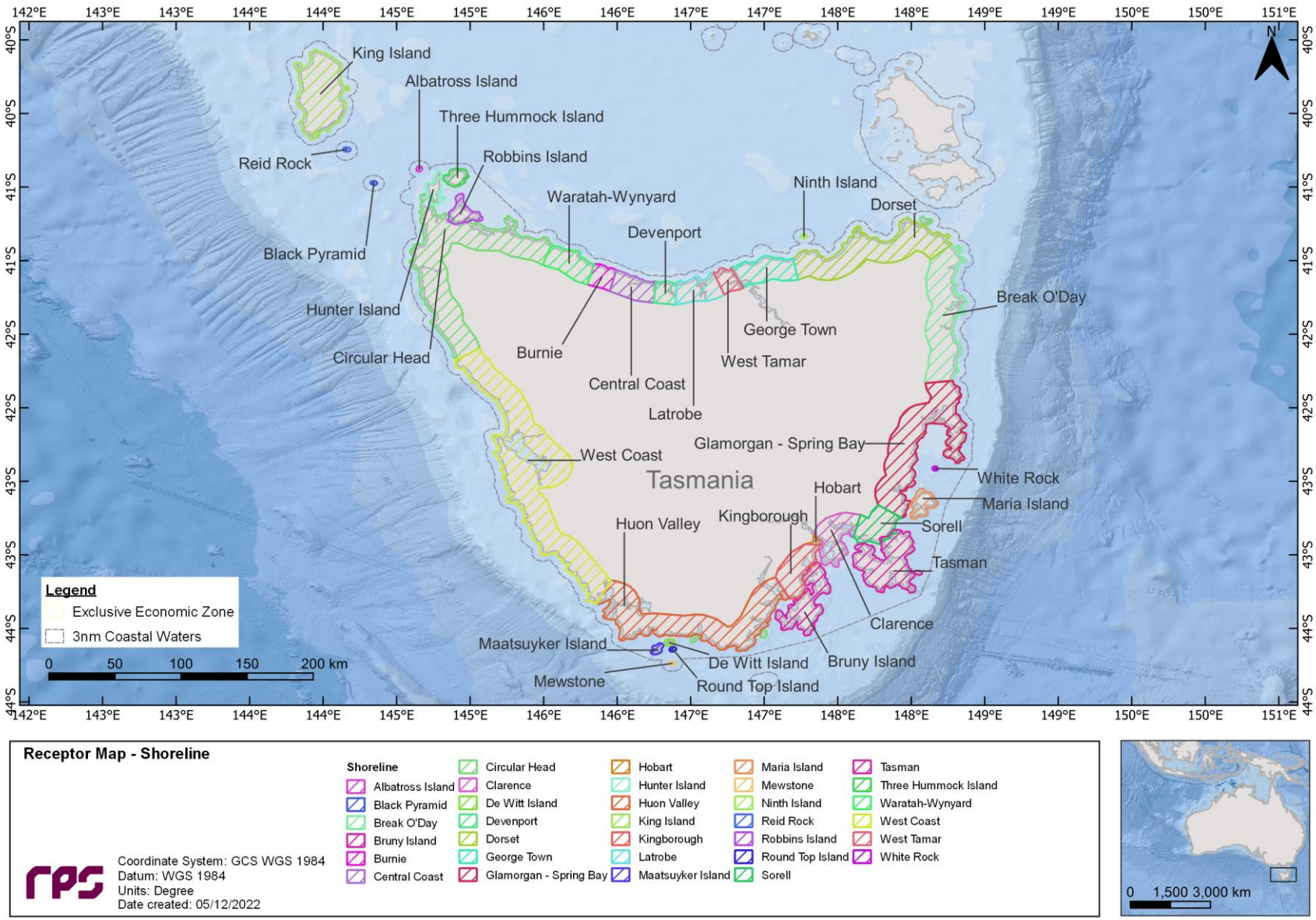


Figure 10.12 Receptor map for shorelines (3 of 3).

11 MODEL SETTINGS

Table 11-1 provides a summary of the spill modelling inputs and thresholds.

The potential risk of exposure to the surrounding waters and contact to shorelines was assessed for summer (October to March) and winter conditions (April to September).

The simulation length was carefully selected based on extensive sensitivity testing. During the sensitivity testing process, sample spill simulations were run for longer than intended durations. Upon completion of the spill simulations, the results were carefully assessed to examine the persistence of the hydrocarbon (i.e. whether the maximum evaporative loss has been achieved for the period of time modelled; and whether a substantial volume of hydrocarbons remain in the water column (if any)) in conjunction with the extent of floating oil exposure based on reporting thresholds. Once there was agreement between the two factors (i.e. the final fate of hydrocarbon is accounted for, and the full exposure area is identified) the simulation length was deemed appropriate.

Table 11-1 Summary of the of the oil spill modelling inputs and thresholds.

Parameter	Locations 1 - 3
Number of randomly selected spill start times per season	100
Model period	Summer (October to March) and winter conditions (April to September)
Oil type	Thylacine condensate
Spill release rate (m^3/day)	1,549
Spill volume (m^3)	139,400
Release type	Subsea
Release duration (days)	90
Simulation length (days)	120
Floating oil exposure thresholds (g/m^2)	1 (low exposure) 10 (moderate exposure) 50 (high exposure)
Shoreline accumulation thresholds (g/m^2)	10 (low potential exposure) 100 (moderate potential exposure) 1,000 (high potential exposure)
Dissolved hydrocarbon exposure thresholds (ppb)	10 (10 ppb x 1 hr, potential low exposure) 50 (50 ppb x 1 hr, potential moderate exposure) 400 (400 ppb x 1 hr, potential high exposure)
Entrained hydrocarbon exposure thresholds (ppb)	10 (10 ppb x 1 hr, potential low exposure) 100 (100 ppb x 1 hr, potential high exposure)

12 CALCULATION OF EXPOSURE RISK

The stochastic sampling approach provides an objective measure of the possible outcomes of a spill because randomly selected environmental conditions with more simulations will tend to use the most commonly occurring conditions, while more unusual conditions will be represented less frequently.

During each simulation, the SIMAP model records the location (by latitude, longitude and depth) of each of the particles (representing a given mass of oil) on or in the water column, at regular time steps. For any particles that contact a shoreline, the model records the accumulation of oil mass that arrives on each section of shoreline over time, less any mass that is lost to evaporation and/or subsequent removal by current and wind forces.

The collective records from all simulations are then analysed by dividing the study region into a three-dimensional grid. For oil particles that are classified as being at the water surface (floating oil), the sum of the mass in all oil particles (including accounting for spreading and dispersion effects) located within a grid cell, divided by the area of the cell provides estimates of the concentration of oil in that grid cell, at each time step. For entrained and dissolved hydrocarbons particles, concentrations are calculated at each time step by summing the mass of particles within a grid cell and dividing by the volume of the grid cell.

The concentrations of oil calculated for each grid cell, at each time step, are then analysed to determine whether concentration estimates exceed defined threshold concentrations over time.

Risks are then summarised as follows:

- The probability of exposure to a location is calculated by dividing the number of spill simulations where any contact occurred above a specified threshold at that location by the total number of replicate spill simulations. For example, if contact occurred at a location (above a specified threshold) during 21 out of 100 simulations, a probability of exposure of 21% is indicated;

- The minimum potential time to a shoreline location is calculated by the shortest time over which oil at a concentration above a threshold was calculated to travel from the source to the location in any of the replicate simulations;

- The maximum potential concentration of oil predicted for each shoreline section is the greatest mass per m^2 of shoreline calculated to strand at any location within that section during any of the replicate simulations; and

- Similar treatments were undertaken for entrained and dissolved hydrocarbon exposures.

Thus, the minimum time to shoreline and the maximum potential concentration estimates indicate the worst potential outcome of the modelled spill scenario for each section of shoreline. However, the average over the replicates presents an average of the potential outcomes, in terms of hydrocarbons that could strand.

Note also that results quoted for sections of shoreline are derived for any individual location within that section, as a conservative estimate. Locations will represent shoreline lengths of the order of ~1 km, while sections or regions will represent shorelines spanning tens to hundreds of kilometres. The maximum potential concentrations quoted will not necessarily occur over the full extent of each section, therefore multiplying the maximum concentration estimates by the full area of the section is not recommended as this will greatly overestimate the total volume expected on that section.

13 LOCATION 1 LOWC RESULTS

This scenario examined the potential exposure following a subsea LOWC at Location 1. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 13.1 presents the low threshold EMBA, Section 13.2 shows the seasonal (or stochastic) analysis results, while Section 13.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

13.1 EMBA

Figure 13.1 shows the EMBA for Location 1. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

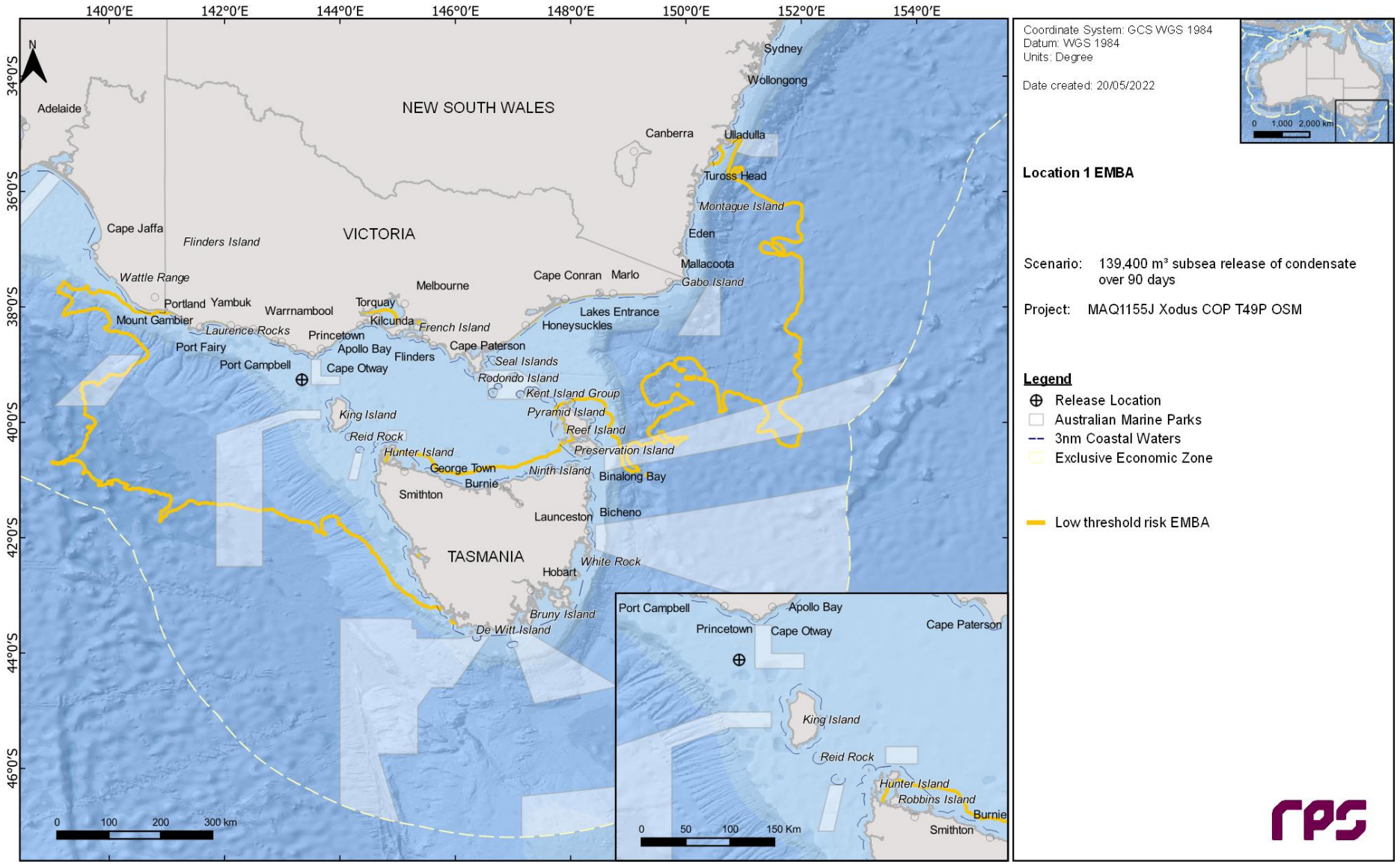


Figure 13.1 Predicted low threshold EMBA from a subsea LOWC at Location 1. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

13.2 Stochastic Analysis

13.2.1 Floating Oil Exposure

Table 13-1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 13-2 summarises the potential floating oil exposure to individual receptors for each season. The exposure by floating oil to BIAs can be found in Appendix A.

Figure 13.2 to Figure 13.3 illustrate the extent of floating oil exposure for each season.

The largest swept area of floating oil exposure at or above the low threshold during winter and summer conditions for a single simulation was 1,357 km^2 and 1,112 km^2, respectively.

Table 13-1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	275.0	13.6	-
	Maximum distance (km) from release location (99th percentile)	101.4	12.4	-
	Direction	E	ENE	-
Winter	Maximum distance (km) from release location	256.8	13.6	-
	Maximum distance (km) from release location (99th percentile)	152.1	12.9	-
	Direction	E	ENE	-

Table 13-2 Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 1 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	100	-	-	0.33	-	-	100	-	-	0.42	-	-
	Zeehan	6	-	-	12.42	-	-	2	-	-	21.29	-	-
IBRA	Gippsland Plain	-	-	-	-	-	-	3	-	-	20.46	-	-
	King Island	1	-	-	99.92	-	-	13	-	-	12.88	-	-
	Otway Plain	9	-	-	63	-	-	17	-	-	7.04	-	-
	Otway Ranges	6	-	-	47.96	-	-	16	-	-	9.25	-	-
	Warrnambool Plain	-	-	-	-	-	-	4	-	-	27.38	-	-
	Wilsons Promontory	1	-	-	94.21	-	-	6	-	-	16.63	-	-
IMCRA	Central Bass Strait	98	-	-	1	-	-	100	-	-	0.79	-	-
	Central Victoria	57	-	-	3.54	-	-	72	-	-	3.08	-	-
	Flinders	1	-	-	94.21	-	-	13	-	-	10.08	-	-
	Otway	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
KEF	West Tasmania Canyons	49	-	-	2.25	-	-	13	-	-	16.75	-	-
MNP	Twelve Apostles	-	-	-	-	-	-	7	-	-	28.58	-	-
	Wilsons Promontory	-	-	-	-	-	-	4	-	-	16.63	-	-
NPS4	Wilsons Promontory Marine Park	-	-	-	-	-	-	2	-	-	64.96	-	-
Near Shore Waters	Colac Otway	10	-	-	47.96	-	-	20	-	-	7.04	-	-
	Corangamite	-	-	-	-	-	-	7	-	-	19.08	-	-
	Kanowna Island	-	-	-	-	-	-	2	-	-	16.63	-	-
	King Island	1	-	-	99.92	-	-	13	-	-	12.88	-	-
	Moncoeur Islands	1	-	-	94.21	-	-	-	-	-	-	-	-
	Norman Island	-	-	-	-	-	-	3	-	-	36.54	-	-
	South Gippsland	-	-	-	-	-	-	3	-	-	20.46	-	-
State Waters	Tasmania	1	-	-	99.92	-	-	31	-	-	4.67	-	-
	Victoria	19	-	-	9.63	-	-	41	-	-	4.75	-	-

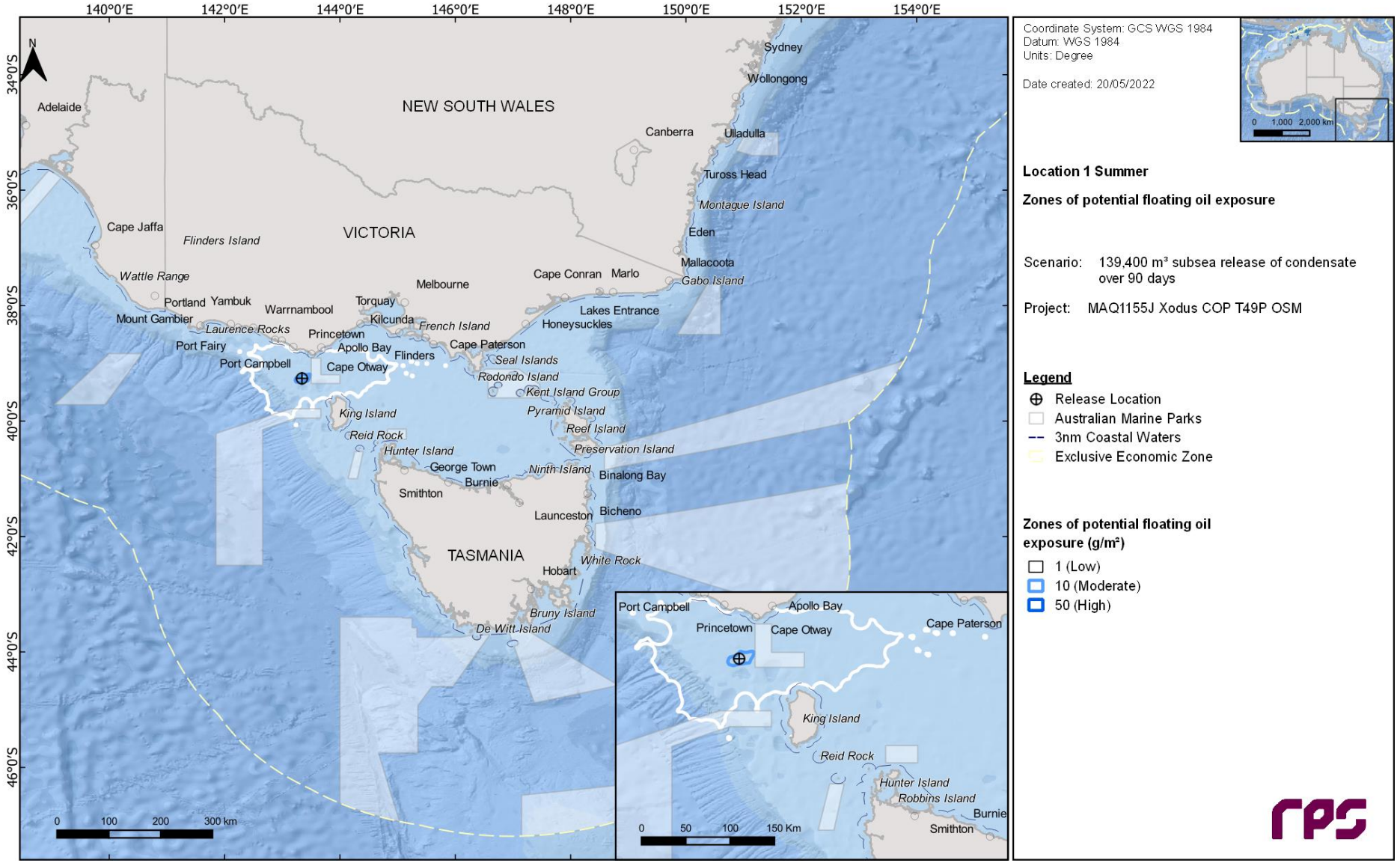


Figure 13.2 Zones of potential floating oil exposure from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

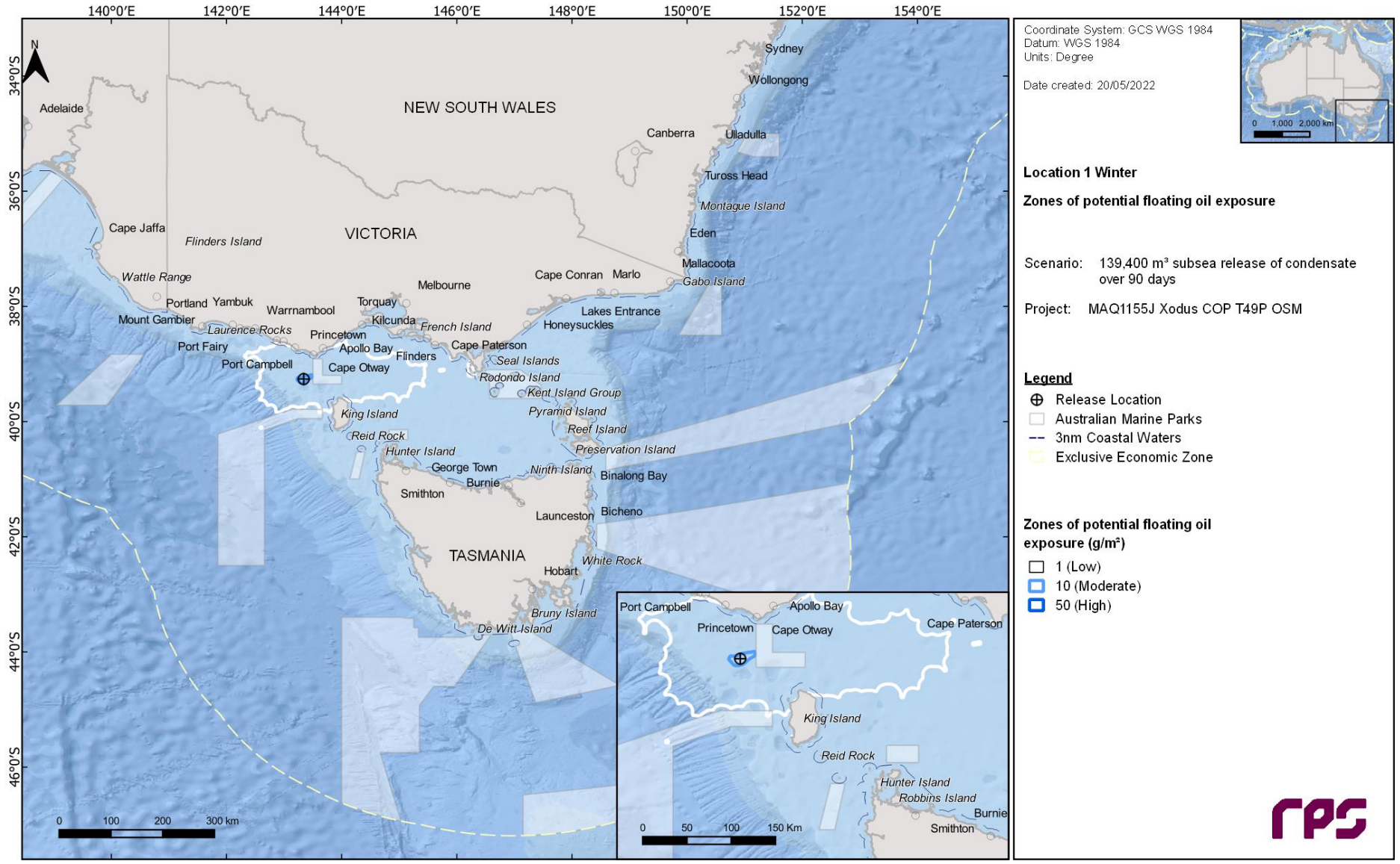


Figure 13.3 Zones of potential floating oil exposure from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.2.2 Shoreline Accumulation

Table 13-3 summarises the predicted oil accumulation on any shoreline during each season.

Table 13-4 to Table 13-5 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 13.4 and Figure 13.5.

Table 13-3 Summary of accumulation on any shoreline from a subsea LOWC at Location 1 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	98	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	10	8.29
Maximum volume of hydrocarbons ashore (m^3)	6.1	20.0
Average volume of hydrocarbons ashore (m^3)	0.6	1.6
Maximum length of the shoreline at **10 g/m^2** (km)	83	121
Average shoreline length (km) at **10 g/m^2** (km)	19.3	41.6
Maximum length of the shoreline at **100 g/m^2** (km)	7	8
Average shoreline length (km) at **100 g/m^2** (km)	2.9	2.9
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 13-4 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 1 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	12	-	-	27.29	-	-	4	40	< 0.1	< 0.1	1	-	-	1	-	-
Bass Coast	3	-	-	47.42	-	-	2	15	< 0.1	< 0.1	1	-	-	1	-	-
Bega Valley	4	-	-	51.71	-	-	2	20	< 0.1	< 0.1	1.4	-	-	2.9	-	-
Circular Head	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colac Otway	57	6	-	10.21	64.92	-	5	242	0.3	5.7	10.3	3.7	-	47.8	6.7	-
Corangamite	29	-	-	10	-	-	3	66	< 0.1	0.2	5.5	-	-	14.3	-	-
Curtis Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Gippsland	5	-	-	81.5	-	-	1	19	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Eurobodalla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gabo Island	1	-	-	68.83	-	-	3	16	< 0.1	< 0.1	1.9	-	-	1.9	-	-
Glenelg	2	-	-	46.88	-	-	1	53	< 0.1	0.1	11	-	-	11.5	-	-
Glennie Group	9	-	-	18.96	-	-	3	25	< 0.1	0.1	1.7	-	-	2.9	-	-
Greater Geelong	2	-	-	36.75	-	-	1	16	< 0.1	0.1	4.3	-	-	4.8	-	-
Hogan Island Group	6	-	-	75.21	-	-	2	26	< 0.1	< 0.1	1	-	-	1	-	-
Hunter Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kanowna Island	12	-	-	25.88	-	-	3	21	< 0.1	0.1	1	-	-	1.9	-	-
Kent Island Group	1	-	-	96.33	-	-	1	30	< 0.1	0.1	2.9	-	-	2.9	-	-
King Island	58	3	-	13.54	64.83	-	4	293	0.2	3.1	9.9	1	-	22	1	-
Lady Julia Percy Island	2	-	-	41.17	-	-	3	14	< 0.1	< 0.1	1	-	-	1	-	-
Laurence Rocks	1	-	-	49.5	-	-	3	25	< 0.1	< 0.1	1	-	-	1	-	-
Moncoeur Islands	4	-	-	59.83	-	-	2	19	< 0.1	< 0.1	1.2	-	-	1.9	-	-
Montague Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mornington Peninsula	8	-	-	22.83	-	-	2	35	< 0.1	0.1	2.9	-	-	12.4	-	-

Moyne	7	-	-	32.5	-	-	2	32	< 0.1	< 0.1	3	-	-	7.6	-	-
Norman Island	19	-	-	19.71	-	-	4	43	< 0.1	0.3	1.3	-	-	1.9	-	-
Phillip Island	8	-	-	22.92	-	-	2	50	< 0.1	< 0.1	2.4	-	-	5.7	-	-
Reid Rock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rodondo Island	1	-	-	80.21	-	-	4	10	< 0.1	< 0.1	1	-	-	1	-	-
Seal Islands	6	-	-	49.88	-	-	3	38	< 0.1	0.2	3.5	-	-	6.7	-	-
Shellback Island	4	-	-	46.83	-	-	4	15	< 0.1	< 0.1	1	-	-	1	-	-
Skull Rock	7	-	-	25.88	-	-	3	21	< 0.1	< 0.1	1	-	-	1	-	-
South Gippsland	28	-	-	23.38	-	-	3	66	< 0.1	0.5	8.5	-	-	22	-	-
Surf Coast	12	-	-	20.96	-	-	2	31	< 0.1	< 0.1	2.4	-	-	7.6	-	-
Warrnambool	2	-	-	37.67	-	-	1	18	< 0.1	< 0.1	2.9	-	-	2.9	-	-
West Coast	1	-	-	100.75	-	-	< 1	12	< 0.1	< 0.1	1	-	-	1	-	-
Anglesea	5	-	-	21.08	-	-	2	16	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Apollo Bay	36	3	-	14.83	64.92	-	6	174	0.1	5.2	6.3	3.8	-	23.9	6.7	-
Bay of Islands	7	-	-	32.5	-	-	2	32	< 0.1	< 0.1	2.2	-	-	5.7	-	-
Bega Valley	4	-	-	51.71	-	-	2	20	< 0.1	< 0.1	1.4	-	-	2.9	-	-
Cape Conran	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cape Howe / Mallacoota	1	-	-	81.5	-	-	1	12	< 0.1	< 0.1	1	-	-	1	-	-
Cape Liptrap (NW)	19	-	-	33.38	-	-	3	57	< 0.1	0.2	4.2	-	-	10.5	-	-
Cape Nelson	2	-	-	46.88	-	-	2	53	< 0.1	< 0.1	5.3	-	-	5.7	-	-
Cape Otway West	48	4	-	10.21	65.13	-	6	242	0.1	2.9	6.2	2.6	-	24.9	2.9	-
Cape Patton	19	-	-	14.5	-	-	3	77	< 0.1	0.3	3.3	-	-	13.4	-	-
Childers Cove	2	-	-	45.96	-	-	1	14	< 0.1	< 0.1	2.4	-	-	2.9	-	-
Croajingolong (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croajingolong (West)	3	-	-	81.71	-	-	1	19	< 0.1	< 0.1	1	-	-	1	-	-
Eurobodalla	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French Island / San Remo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kilcunda	1	-	-	47.42	-	-	1	12	< 0.1	< 0.1	1	-	-	1	-	-
Lorne	10	-	-	20.96	-	-	2	31	< 0.1	< 0.1	2.3	-	-	6.7	-	-

Moonlight Head	27	-	-	10	-	-	4	66	< 0.1	0.2	4.2	-	-	8.6	-	-
Mornington Peninsula (S)	5	-	-	22.83	-	-	2	23	< 0.1	< 0.1	2.7	-	-	7.6	-	-
Mornington Peninsula (SW)	5	-	-	39.63	-	-	2	35	< 0.1	< 0.1	1.7	-	-	3.8	-	-
Point Hicks	2	-	-	100.17	-	-	2	12	< 0.1	< 0.1	1	-	-	1	-	-
Port Campbell	7	-	-	33.88	-	-	2	45	< 0.1	0.1	4.9	-	-	9.6	-	-
Port Fairy	2	-	-	47	-	-	1	11	< 0.1	< 0.1	1.4	-	-	1.9	-	-
Port Phillip (Queenscliff)	2	-	-	38.29	-	-	1	16	< 0.1	0.1	3.8	-	-	4.8	-	-
Port Phillip (Sorrento Shore)	1	-	-	56.08	-	-	2	11	< 0.1	< 0.1	1	-	-	1	-	-
Portland Bay (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portland Bay (West)	2	-	-	48.42	-	-	2	31	< 0.1	< 0.1	5.7	-	-	6.7	-	-
Torquay	3	-	-	36.75	-	-	2	16	< 0.1	< 0.1	1.3	-	-	1.9	-	-
Venus Bay	4	-	-	50.17	-	-	2	19	< 0.1	< 0.1	1.2	-	-	1.9	-	-
Waratah Bay	13	-	-	41.92	-	-	2	60	< 0.1	0.2	3.8	-	-	8.6	-	-
Warrnambool	2	-	-	37.67	-	-	1	18	< 0.1	< 0.1	1.9	-	-	2.9	-	-
Westernport	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilsons Promontory (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilsons Promontory (West)	26	-	-	23.38	-	-	3	66	< 0.1	0.4	4.1	-	-	12.4	-	-

Table 13-5 Summary of oil accumulation on individual shoreline sectors from a subsea LOWC at Location 1 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	45	3	-	10.21	16.75	-	13	122	< 0.1	1.5	1.3	1.3	-	1.9	1.9	-
Bass Coast	17	-	-	18.21	-	-	3	98	< 0.1	2.1	8	-	-	16.3	-	-
Bega Valley	12	-	-	21.17	-	-	2	18	< 0.1	0.2	1.1	-	-	1.9	-	-
Circular Head	3	-	-	33.38	-	-	1	24	< 0.1	< 0.1	1.6	-	-	1.9	-	-
Colac Otway	52	8	-	8.63	9.33	-	7	274	0.2	2.4	11.2	3.9	-	46.8	5.7	-
Corangamite	24	-	-	8.88	-	-	4	48	< 0.1	0.8	7.7	-	-	18.2	-	-
Curtis Island	22	-	-	10.96	-	-	5	40	< 0.1	< 0.1	1.8	-	-	2.9	-	-
East Gippsland	21	-	-	30.29	-	-	2	19	< 0.1	< 0.1	1.2	-	-	3.8	-	-
Eurobodalla	2	-	-	75.88	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
French Island	1	-	-	30.21	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
Gabo Island	2	-	-	39.38	-	-	2	16	< 0.1	0.1	1	-	-	1	-	-
Glenelg	5	-	-	60.17	-	-	5	38	< 0.1	0.3	8.4	-	-	10.5	-	-
Glennie Group	55	4	-	10.67	17.13	-	11	338	< 0.1	1.5	3.4	2.2	-	7.6	2.9	-
Greater Geelong	6	-	-	52.5	-	-	2	22	< 0.1	0.1	3.8	-	-	6.7	-	-
Hogan Island Group	32	7	-	10	11.96	-	6	178	< 0.1	1.2	2.7	1.2	-	8.6	1.9	-
Hunter Island	1	-	-	67.83	-	-	1	12	< 0.1	< 0.1	1	-	-	1	-	-
Kanowna Island	51	4	-	10.25	17.08	-	11	190	< 0.1	2	1.9	1.2	-	3.8	1.9	-
Kent Island Group	29	-	-	20.38	-	-	3	69	< 0.1	1	2.4	-	-	5.7	-	-
King Island	77	13	-	8.29	15.96	-	6	252	0.4	4	13.9	1.5	-	32.5	2.9	-
Lady Julia Percy Island	1	-	-	68.79	-	-	7	11	< 0.1	< 0.1	1	-	-	1	-	-
Laurence Rocks	4	-	-	62.29	-	-	5	25	< 0.1	< 0.1	1	-	-	1	-	-
Moncoeur Islands	40	-	-	11.25	-	-	9	93	< 0.1	0.2	2	-	-	3.8	-	-
Montague Island	8	-	-	60.33	-	-	4	19	< 0.1	< 0.1	1.2	-	-	1.9	-	-
Mornington Peninsula	17	-	-	15.25	-	-	2	46	< 0.1	< 0.1	4.5	-	-	19.1	-	-

Moyne	9	-	-	11.63	-	-	3	32	< 0.1	0.4	4.2	-	-	8.6	-	-
Norman Island	51	1	-	16.58	36.75	-	11	460	< 0.1	3.5	2.1	2.9	-	4.8	2.9	-
Phillip Island	22	6	-	16.42	33.21	-	4	173	0.1	2.9	6.2	1.6	-	17.2	2.9	-
Reid Rock	1	-	-	22.88	-	-	1	10	< 0.1	< 0.1	1	-	-	1	-	-
Rodondo Island	33	-	-	13.04	-	-	12	93	< 0.1	< 0.1	1	-	-	1	-	-
Seal Islands	23	-	-	21.08	-	-	4	52	< 0.1	0.3	2.7	-	-	7.6	-	-
Shellback Island	27	-	-	20.13	-	-	10	38	< 0.1	0.2	1	-	-	1	-	-
Skull Rock	46	4	-	10.25	17.08	-	12	190	< 0.1	1.6	1.6	1	-	2.9	1	-
South Gippsland	66	10	-	18.25	19.17	-	5	268	0.4	4.2	11.8	1.5	-	32.5	3.8	-
Surf Coast	7	-	-	43.5	-	-	2	17	< 0.1	< 0.1	1.2	-	-	1.9	-	-
Warrnambool	6	-	-	51.29	-	-	3	28	< 0.1	< 0.1	3.2	-	-	5.7	-	-
West Coast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anglesea	1	-	-	79.75	-	-	2	11	< 0.1	< 0.1	1	-	-	1	-	-
Apollo Bay	39	4	-	8.71	21.33	-	6	181	< 0.1	0.8	5.4	3.3	-	22	5.7	-
Bay of Islands	9	-	-	11.63	-	-	3	32	< 0.1	0.3	2.5	-	-	4.8	-	-
Bega Valley	12	-	-	21.17	-	-	2	18	< 0.1	0.2	1.1	-	-	1.9	-	-
Cape Conran	1	-	-	45.67	-	-	2	10	< 0.1	< 0.1	1	-	-	1	-	-
Cape Howe / Mallacoota	2	-	-	30.29	-	-	2	18	< 0.1	< 0.1	1	-	-	1	-	-
Cape Liptrap (NW)	38	1	-	18.29	85.58	-	5	125	< 0.1	1.3	5.5	1	-	15.3	1	-
Cape Nelson	5	-	-	60.17	-	-	5	38	< 0.1	0.1	4.4	-	-	5.7	-	-
Cape Otway West	39	6	-	8.63	9.33	-	10	274	0.1	2.4	7.9	3	-	25.8	3.8	-
Cape Patton	19	-	-	29.63	-	-	3	90	< 0.1	0.2	2.9	-	-	13.4	-	-
Childers Cove	6	-	-	50.46	-	-	3	24	< 0.1	< 0.1	2.7	-	-	3.8	-	-
Croajingolong (East)	2	-	-	52.21	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
Croajingolong (West)	10	-	-	38.83	-	-	2	18	< 0.1	< 0.1	1.2	-	-	1.9	-	-
Eurobodalla	2	-	-	75.88	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
French Island / San Remo	4	-	-	68.79	-	-	2	22	< 0.1	< 0.1	1	-	-	1	-	-
Kilcunda	8	-	-	22.54	-	-	3	79	< 0.1	1.2	8.8	-	-	11.5	-	-
Lorne	8	-	-	34.33	-	-	2	25	< 0.1	< 0.1	1.9	-	-	3.8	-	-

Moonlight Head	23	-	-	8.92	-	-	4	43	< 0.1	0.4	4	-	-	8.6	-	-
Mornington Peninsula (S)	14	-	-	15.38	-	-	3	46	< 0.1	< 0.1	3.5	-	-	7.6	-	-
Mornington Peninsula (SW)	8	-	-	15.25	-	-	2	41	< 0.1	< 0.1	2.9	-	-	9.6	-	-
Point Hicks	7	-	-	33.21	-	-	2	19	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Port Campbell	10	-	-	9.83	-	-	4	48	< 0.1	0.5	7.1	-	-	11.5	-	-
Port Fairy	4	-	-	61.75	-	-	3	17	< 0.1	< 0.1	1.4	-	-	1.9	-	-
Port Phillip (Queenscliff)	6	-	-	52.5	-	-	2	22	< 0.1	0.1	3	-	-	5.7	-	-
Port Phillip (Sorrento Shore)	3	-	-	15.63	-	-	2	21	< 0.1	< 0.1	1.3	-	-	1.9	-	-
Portland Bay (East)	1	-	-	108.5	-	-	2	11	< 0.1	< 0.1	1	-	-	1	-	-
Portland Bay (West)	5	-	-	60.21	-	-	5	34	< 0.1	0.2	4	-	-	5.7	-	-
Torquay	5	-	-	57.33	-	-	2	12	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Venus Bay	19	-	-	18.21	-	-	3	98	< 0.1	1.3	3.5	-	-	10.5	-	-
Waratah Bay	24	-	-	19.25	-	-	3	34	< 0.1	0.2	1.4	-	-	2.9	-	-
Warrnambool	5	-	-	51.29	-	-	2	28	< 0.1	< 0.1	2.3	-	-	3.8	-	-
Westernport	1	-	-	27.63	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
Wilsons Promontory (East)	4	-	-	41.38	-	-	2	21	< 0.1	< 0.1	1	-	-	1	-	-
Wilsons Promontory (West)	64	9	-	18.25	19.17	-	7	268	0.3	3.4	8.2	1.6	-	22.9	3.8	-

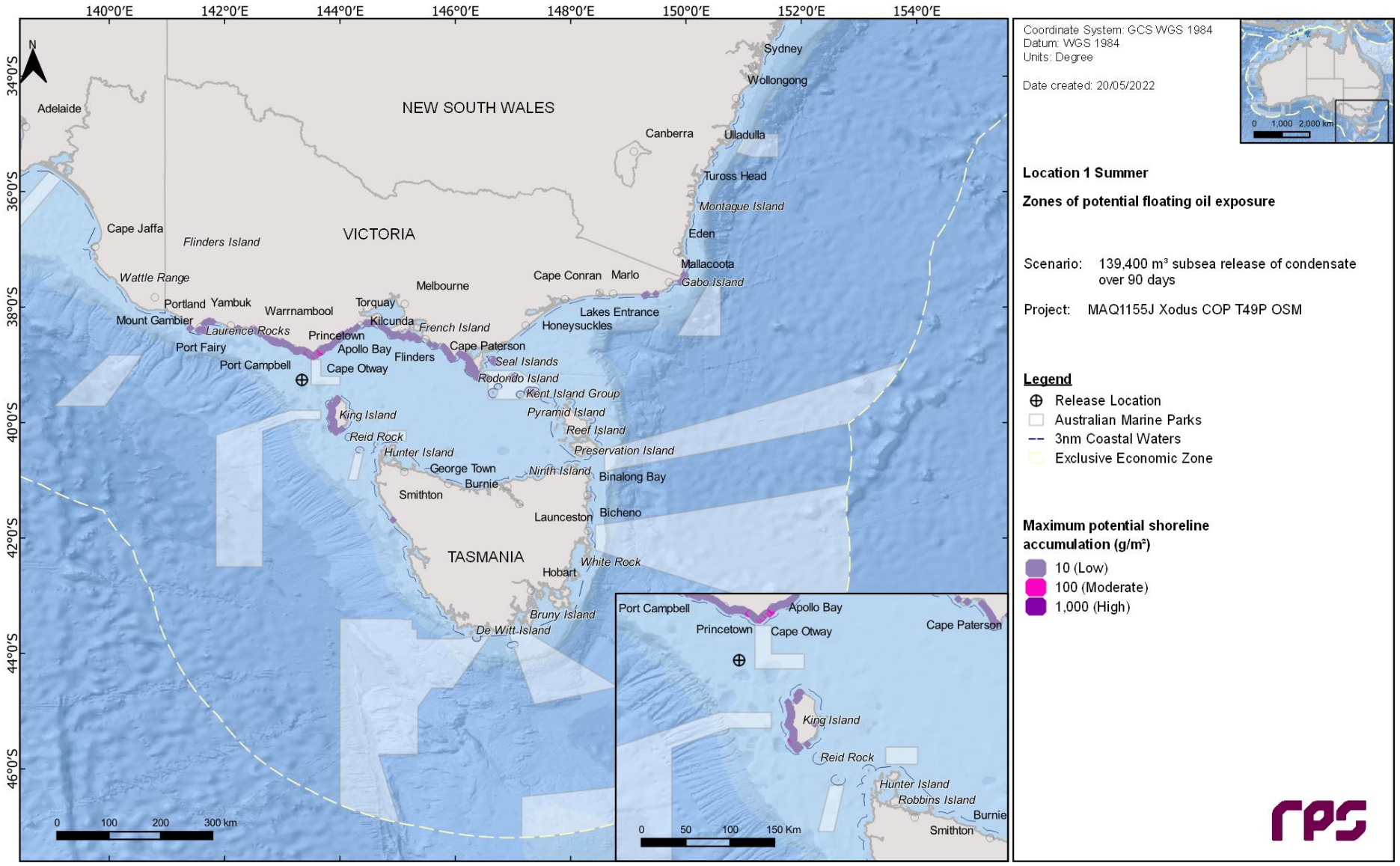


Figure 13.4 Maximum potential shoreline loading from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

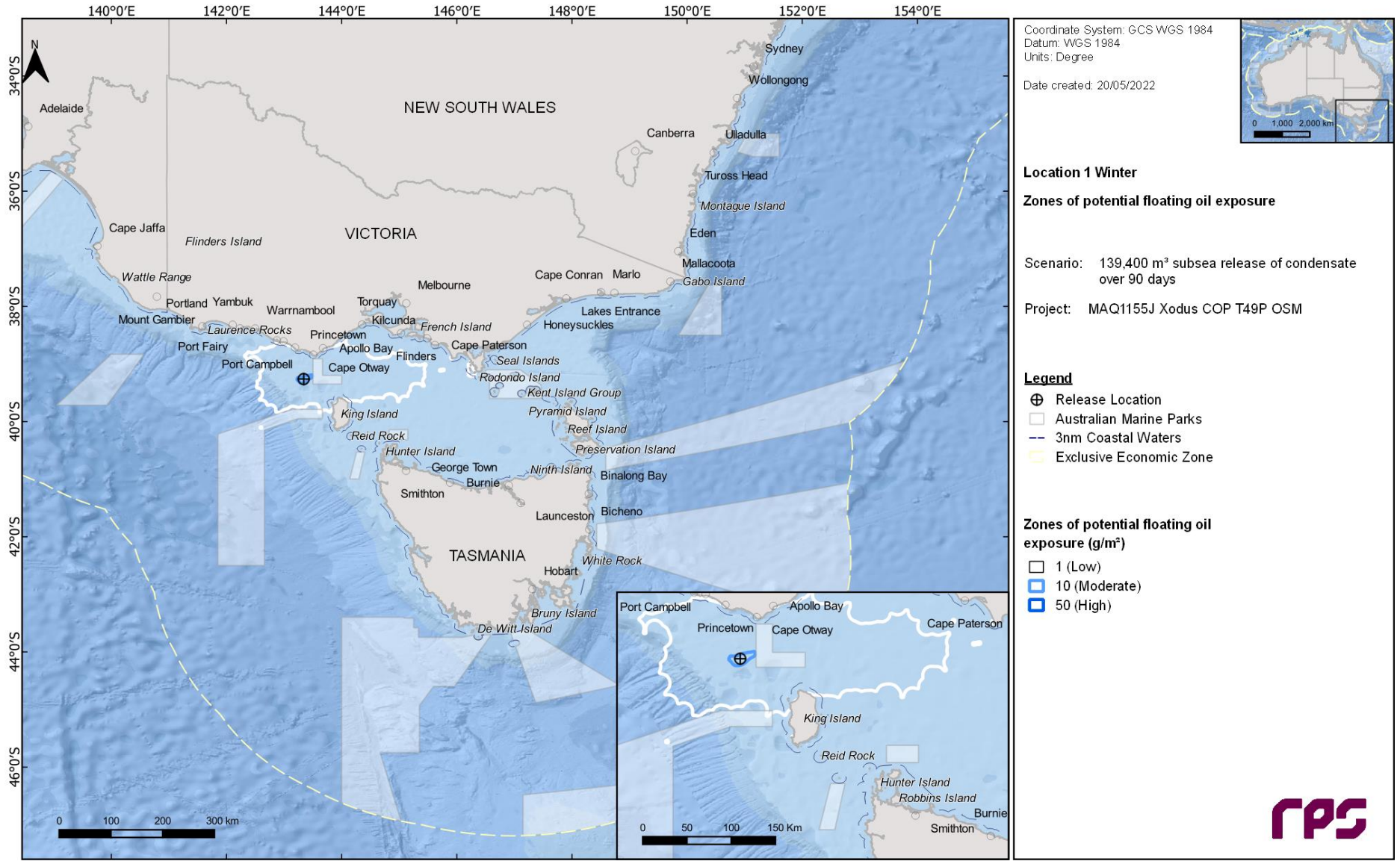


Figure 13.5 Maximum potential shoreline loading from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.2.3 In-water exposure

13.2.3.1 Dissolved Hydrocarbons

Table 13-6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – -10 m depth layer.

Table 13-7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m depth layer for each threshold and season.

Figure 13.6 and Figure 13.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers. Figures showing the extent of dissolved hydrocarbon exposure in the 10-20 m, 20 – 30 m and 30 – 50 m depth layers for each season are presented in Appendix A.

Table 13-6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10m) from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	661	656	359
	Maximum distance (km) from release location (99^{th} percentile)	631	560	179
	Direction	ENE	ENE	E
Winter	Maximum distance (km) from release location	769	722	452
	Maximum distance (km) from release location (99^{th} percentile)	681	463	327
	Direction	ENE	ENE	ENE

Table 13-7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	6,501	100	100	100	6,003	100	100	100
	Beagle	683	21	9	1	1,386	75	27	3
	Boags	84	2	1	-	15	1	-	-
	East Gippsland	17	1	-	-	25	2	-	-
	Franklin	105	10	1	-	44	4	-	-
	Zeehan	1,577	88	73	9	2,013	63	39	6
IBRA	Bateman	-	-	-	-	34	4	-	-
	Bridgewater	-	-	-	-	16	1	-	-
	East Gippsland Lowlands	162	6	2	-	117	11	1	-
	Flinders	152	13	3	-	352	49	15	-
	Gippsland Plain	122	13	2	-	764	49	4	1
	Glenelg Plain	-	-	-	-	12	1	-	-
	King Island	727	66	37	2	1,887	83	62	8
	Otway Plain	749	67	31	2	746	69	34	2
	Otway Ranges	1,102	60	25	2	659	58	27	2
	South East Coastal Ranges	-	-	-	-	26	3	-	-
	Strzelecki Ranges	82	15	1	-	185	48	6	-
	Warrnambool Plain	487	34	15	1	422	27	12	1
	Wilsons Promontory	423	22	9	1	733	78	31	1
IMCRA	Batemans Shelf	43	2	-	-	70	5	1	-
	Boags	38	2	-	-	-	-	-	-
	Central Bass Strait	4,405	100	99	92	4,718	100	100	100
	Central Victoria	2,627	99	92	35	2,898	100	96	43
	Flinders	764	29	11	1	1,386	82	41	3
	Franklin	112	11	1	-	20	1	-	-
	Otway	7,731	100	100	100	6,003	100	100	100
	Twofold Shelf	831	15	7	1	1,423	64	17	1
	Victorian Embayments	83	3	1	-	119	7	2	-
KEF	Big Horseshoe Canyon	-	-	-	-	24	1	-	-
	Bonney Coast Upwelling	49	2	-	-	89	6	1	-
	Canyons on the eastern continental slope	-	-	-	-	15	1	-	-
	Shelf rocky reefs	-	-	-	-	20	2	-	-

	Upwelling East of Eden	384	7	4	-	592	20	5	1
	West Tasmania Canyons	3,715	81	71	24	1,144	37	27	5
MNP	Bunurong	46	5	-	-	58	16	1	-
	Cape Howe	83	4	2	-	100	11	1	-
	Churchill Island	-	-	-	-	22	3	-	-
	Corner Inlet	-	-	-	-	80	2	1	-
	Ninety Mile Beach	-	-	-	-	45	2	-	-
	Point Addis	43	8	-	-	259	18	3	-
	Point Hicks	109	7	2	-	70	12	1	-
	Port Phillip Heads	84	2	1	-	36	5	-	-
	Twelve Apostles	201	27	12	-	249	25	15	-
	Wilsons Promontory	249	19	6	-	314	71	23	-
MS	Beware Reef	179	3	1	-	44	7	-	-
	Marengo Reefs	277	37	13	-	353	48	18	-
	Mushroom Reef	21	4	-	-	79	6	1	-
	The Arches	120	7	2	-	101	8	2	-
NPS4	Bunurong Marine Park	17	2	-	-	28	7	-	-
	Corner Inlet Marine and Coastal Park	-	-	-	-	764	4	2	1
	Nooramunga Marine and Coastal Park	18	1	-	-	245	6	2	-
	Shallow Inlet Marine and Coastal Park	11	1	-	-	466	5	2	1
	Wilsons Promontory Marine Park	59	9	1	-	656	28	3	1
	Wilsons Promontory Marine Reserve	178	16	5	-	139	60	10	-
NP	Kent Group	-	-	-	-	93	10	2	-
Ramsar	Corner Inlet	18	1	-	-	764	6	2	1
	Gippsland Lakes	-	-	-	-	12	1	-	-
	Lavinia	115	6	2	-	207	16	4	-
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	14	1	-	-	-	-	-	-
	Western Port	12	1	-	-	119	5	1	-
RSB	Bell Reef	58	19	1	-	62	4	1	-
	Beware Reef	179	3	1	-	44	7	-	-
	Bravenes Rock	338	52	30	-	440	43	28	5
	Brown Rocks	20	1	-	-	-	-	-	-
	Cody Bank	101	19	7	-	224	55	12	-
	Cutter Rock	125	16	5	-	317	66	24	-
	New Zealand Star Bank	92	6	2	-	98	11	1	-

Near Shore Waters	Albatross Island	18	1	-	-	-	-	-	-
	Anser Island	122	17	3	-	217	64	16	-
	Bass Coast	24	4	-	-	32	11	-	-
	Bega Valley	104	4	2	-	94	11	1	-
	Black Pyramid	36	3	-	-	17	2	-	-
	Circular Head	31	1	-	-	-	-	-	-
	Colac Otway	1,102	67	31	2	746	69	34	2
	Corangamite	487	40	17	1	481	29	16	1
	Curtis Island	129	8	3	-	337	46	13	-
	East Gippsland	162	6	1	-	117	8	1	-
	Eurobodalla	-	-	-	-	34	4	-	-
	French Island	-	-	-	-	36	2	-	-
	Gabo Island	58	3	1	-	39	10	-	-
	Glenelg	10	-	-	-	16	1	-	-
	Glennie Group	192	20	5	-	233	67	13	-
	Greater Geelong	83	1	1	-	23	2	-	-
	Hogan Island Group	152	13	3	-	352	49	15	-
	Hunter Island	25	1	-	-	-	-	-	-
	Kanowna Island	169	16	5	-	217	66	23	-
	Kent Island Group	-	-	-	-	81	14	2	-
	King Island	727	66	39	2	1,887	83	62	8
	Lady Julia Percy Island	17	2	-	-	28	2	-	-
	Laurence Rocks	10	1	-	-	10	1	-	-
	Martins Island	-	-	-	-	478	2	1	1
	Moncoeur Islands	381	21	8	-	700	75	30	1
	Montague Island	-	-	-	-	31	3	0	-
	Mornington Peninsula	88	6	1	-	117	14	2	-
	Moyne	80	8	2	-	115	7	1	-
	Mud Island	23	1	-	-	17	1	-	-
	Norman Island	104	13	2	-	265	43	6	-
	Phillip Island	24	5	-	-	123	11	3	-
	Reid Rock	140	20	3	-	66	5	1	-
	Rodondo Island	423	22	9	1	733	78	31	1
	Seal Islands	122	9	2	-	303	35	4	-
	Shellback Island	50	10	-	-	656	32	4	1
	Skull Rock	227	20	7	-	217	71	22	-
	South Gippsland	122	16	4	-	764	64	9	1
	Surf Coast	144	8	3	-	140	16	3	-
	Three Hummock Island	18	1	-	-	-	-	-	-
	Warrnambool	16	1	-	-	22	1	-	-
	Wellington	22	1	-	-	245	7	2	-
State Waters	New South Wales	142	4	2	-	117	10	1	-
	Tasmania	1,217	80	55	5	2,106	96	86	23
	Victoria	1,383	77	54	5	1,332	80	66	6

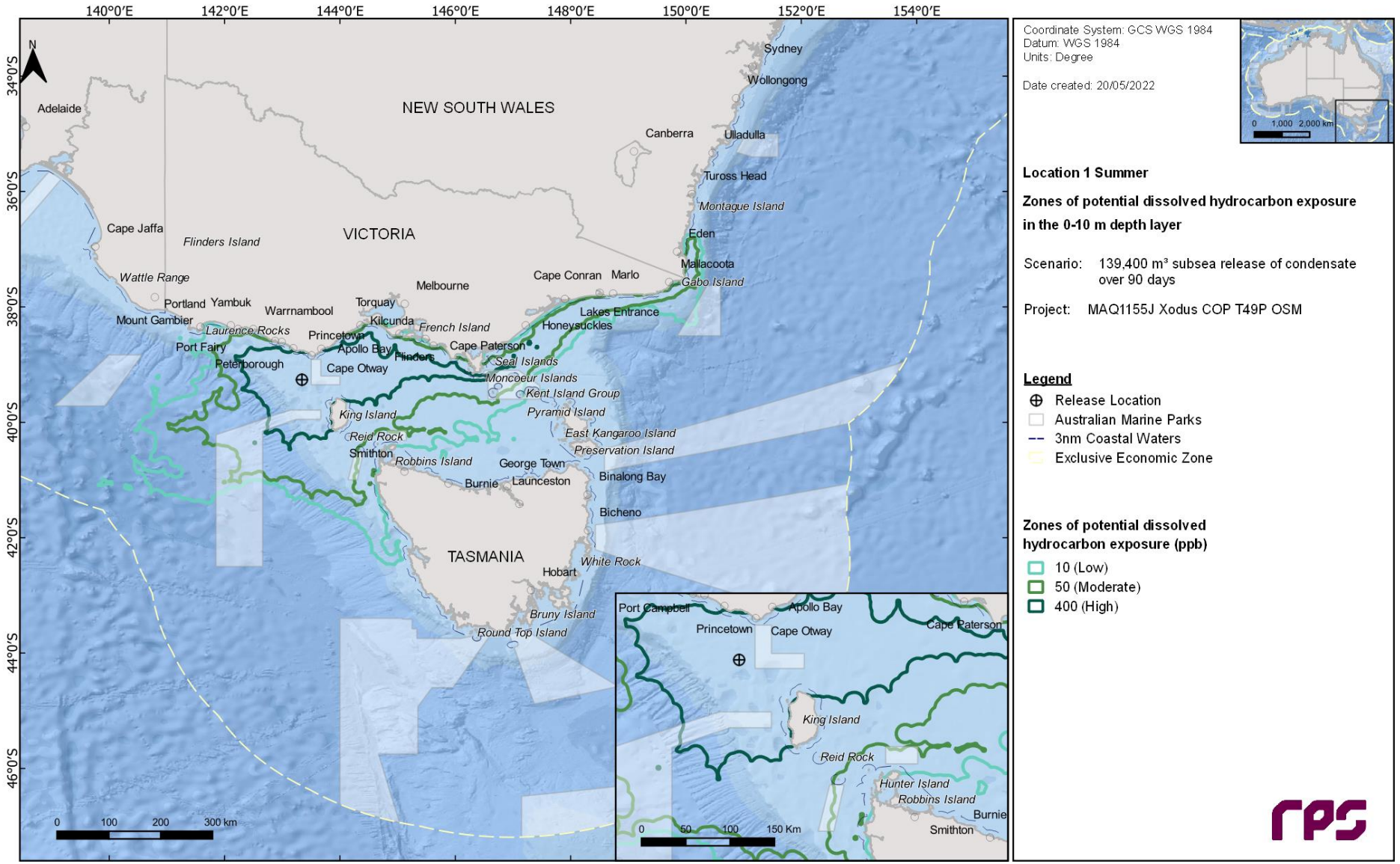


Figure 13.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

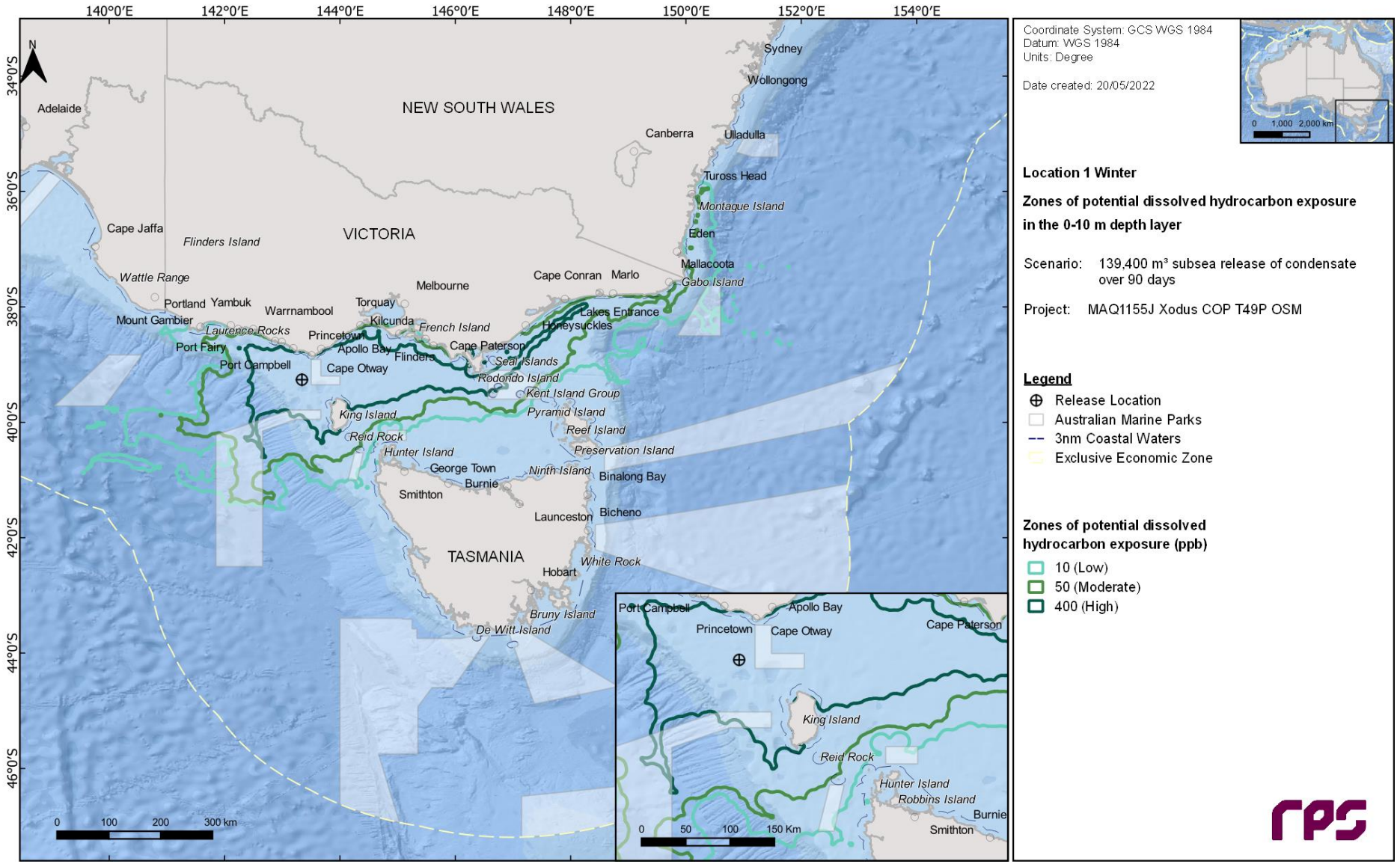


Figure 13.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.2.3.2 Entrained Hydrocarbons

Table 13-8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 13-9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layer, for each season.

Figure 13.8 to Figure 13.7 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer. Extent of the entrained hydrocarbon exposure for each season in the 10 -20 m and 20 – 30 m depth layers is presented in Appendix A.

Table 13-8 Maximum distance and direction by entrained hydrocarbon exposure (0-10m) from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	822	666
	Maximum distance (km) from release location (99^{th} percentile)	735	650
	Direction	ENE	ENE
Winter	Maximum distance (km) from release location	833	665
	Maximum distance (km) from release location (99^{th} percentile)	783	649
	Direction	ENE	ENE

Table 13-9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	3,478	100	100	2,964	100	100
	Beagle	286	59	17	297	93	32
	Boags	117	36	3	93	18	-
	East Gippsland	71	12	-	65	42	-
	Flinders	16	1	-	16	6	-
	Franklin	138	54	3	112	26	1
	Nelson	16	3	-	20	6	-
	Zeehan	891	95	74	966	72	44
IBRA	Bateman	28	4	-	32	27	-
	Bridgewater	117	16	2	125	6	5
	East Gippsland Lowlands	55	27	-	84	80	-
	Flinders	306	47	9	320	86	28
	Gippsland Plain	207	65	9	367	98	27
	Glenelg Plain	123	19	2	126	6	5
	Jervis	-	-	-	13	5	-
	King Island	894	92	54	960	98	78
	Otway Plain	582	87	51	572	88	52
	Otway Ranges	576	84	49	408	83	51
	South East Coastal Ranges	35	7	-	34	28	-
	Strzelecki Ranges	107	65	4	172	97	13
	Tasmanian West	42	37	-	12	2	-
	Victorian Volcanic Plain	12	3	-	-	-	-

	Warrnambool Plain	420	72	24	437	50	24
	Wilsons Promontory	355	65	20	453	94	50
IMCRA	Batemans Shelf	191	25	5	189	55	3
	Boags	99	43	-	70	15	-
	Central Bass Strait	1,952	100	100	1,823	100	100
	Central Victoria	1,431	100	93	1,533	100	96
	Davey	11	1	-	-	-	-
	Flinders	356	67	21	489	94	51
	Franklin	71	50	-	61	17	-
	Otway	11,005	100	100	11,153	100	100
	Twofold Shelf	306	50	9	320	92	24
	Victorian Embayments	160	47	4	155	62	8
KEF	Big Horseshoe Canyon	28	19	-	38	56	-
	Bonney Coast Upwelling	169	29	2	174	13	5
	Canyons on the eastern continental slope	34	5	-	49	18	-
	Shelf rocky reefs	29	8	-	38	32	-
	Upwelling East of Eden	267	34	6	269	83	5
	West Tasmania Canyons	924	94	86	805	47	35
MNP	Bunurong	83	62	-	129	75	2
	Cape Howe	62	26	-	78	80	-
	Churchill Island	95	30	-	109	45	1
	Corner Inlet	12	1	-	12	4	-
	Discovery Bay	34	16	-	38	6	-
	French Island	14	3	-	18	10	-
	Ninety Mile Beach	-	-	-	19	3	-
	Point Addis	124	43	3	170	49	10
	Point Hicks	44	29	-	71	80	-
	Port Phillip Heads	126	36	3	131	43	7
	Twelve Apostles	659	70	24	693	46	25
	Wilsons Promontory	224	65	19	349	94	50
MS	Beware Reef	19	9	-	21	31	-
	Marengo Reefs	557	80	33	409	71	41
	Merri	92	8	-	85	12	-
	Mushroom Reef	163	41	1	148	56	1
	The Arches	154	45	4	159	25	4
MP	Batemans	32	6	-	38	30	-
	Jervis Bay	-	-	-	12	2	-
	Lower South East	11	1	-	-	-	-
NPS4	Bunurong Marine Park	65	56	-	124	68	7

	Corner Inlet Marine and Coastal Park	64	39	-	53	50	-
	Nooramunga Marine and Coastal Park	12	5	-	16	5	-
	Shallow Inlet Marine and Coastal Park	74	33	-	68	49	-
	Wilsons Promontory Marine Park	168	58	10	380	87	27
	Wilsons Promontory Marine Reserve	210	64	10	352	93	45
NP	Kent Group	94	30	-	99	66	-
	Booderee	-	-	-	10	1	-
NR	Chappell Islands	10	1	-	-	-	-
Ramsar	Corner Inlet	64	39	-	53	50	-
	Gippsland Lakes	-	-	-	13	1	-
	Glenelg Estuary and Discovery Bay Wetlands	13	3	-	13	5	-
	Lavinia	64	37	-	161	66	5
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	96	24	-	89	33	-
	Western Port	93	28	-	90	44	-
RSB	Bell Reef	138	61	2	137	40	2
	Beware Reef	19	9	-	21	31	-
	Bravenes Rock	478	84	55	507	74	38
	Brown Rocks	31	26	-	25	5	-
	Cody Bank	137	78	3	149	99	4
	Cutter Rock	122	52	8	204	90	18
	Endeavour Reef	13	5	-	32	23	-
	New Zealand Star Bank	114	27	3	126	83	3
	Wakitipu Rock	16	5	-	33	27	-
	Warrego Rock	19	5	-	15	6	-
	Wright Rock	15	5	-	45	26	-
Near Shore Waters	Albatross Island	43	40	-	23	6	-
	Anser Island	199	65	14	265	94	49
	Badger Island	11	2	-	5	-	-
	Bass Coast	108	60	1	149	73	8
	Bega Valley	46	23	-	55	76	-
	Big green Island	10	1	-	5	-	-
	Black Pyramid	119	50	3	98	19	-
	Circular Head	34	32	-	34	5	-
	Colac Otway	582	87	51	572	88	52
	Corangamite	372	72	26	432	50	28
	Craggy Island	17	5	-	14	13	-

Curtis Island	120	47	4	290	86	28
East Gippsland	55	27	-	84	77	-
East Kangaroo Island	10	1	-	5	-	-
Eurobodalla	17	2	-	26	24	-
Flinders Island	11	1	-	7	-	-
Frankston	11	1	-	13	6	-
French Island	70	24	-	73	32	-
Gabo Island	53	23	-	53	80	-
Glenelg	123	19	2	126	6	5
Glennie Group	224	65	15	352	94	46
Goose Island	12	2	-	5	-	-
Greater Geelong	107	34	3	122	44	6
Hogan Island Group	306	43	9	320	84	24
Hunter Island	34	33	-	38	5	-
Huon Valley	11	1	-	3	-	-
Kanowna Island	204	65	20	286	94	50
Kent Island Group	94	30	-	99	63	-
King Island	894	92	56	960	98	78
Lady Julia Percy Island	96	21	-	112	7	3
Laurence Rocks	118	13	2	125	6	5
Martins Island	12	1	-	8	-	-
Moncoeur Islands	355	58	18	307	93	41
Montague Island	28	4	-	32	27	-
Mornington Peninsula	207	56	5	210	64	8
Mount Chappell Island	12	3	-	6	-	-
Moyne	222	39	9	216	23	8
Mud Island	78	22	-	81	29	-
Norman Island	196	63	15	453	93	40
Outer Sister Island	10	1	-	7	-	-
Pasco Group	11	1	-	7	-	-
Phillip Island	148	63	3	168	64	10
Prime Seal Island	12	3	-	7	-	-
Pyramid Island	19	6	-	60	29	-
Reid Rock	214	65	6	194	53	8
Rodondo Island	275	59	18	301	93	44
Seal Islands	121	39	2	119	84	6
Shellback Island	163	58	7	388	90	23
Shoal Haven	-	-	-	12	5	-
Skull Rock	204	65	20	286	94	50
South Gippsland	188	65	13	435	98	41
Surf Coast	207	54	6	183	52	8
Three Hummock Island	23	17	-	20	4	-

	Warrnambool	128	17	2	118	12	4
	Wellington	16	8	-	18	7	-
	West Coast	42	37	-	12	2	-
State Waters	New South Wales state waters	78	27	-	79	80	-
	South Australia	11	1	-	-	-	-
	Tasmania	1,037	97	68	1,156	100	93
	Victoria	801	92	74	833	100	72

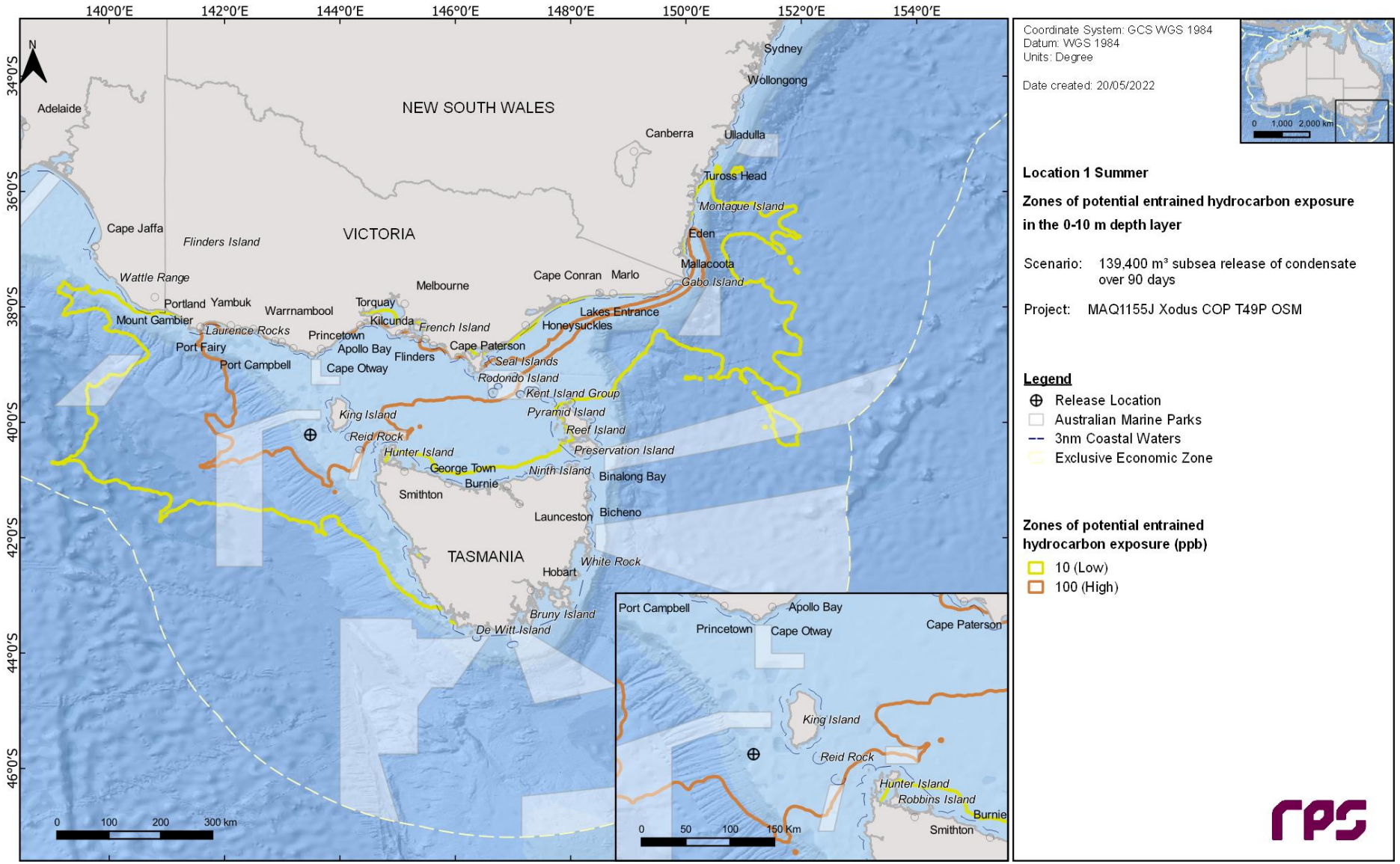


Figure 13.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

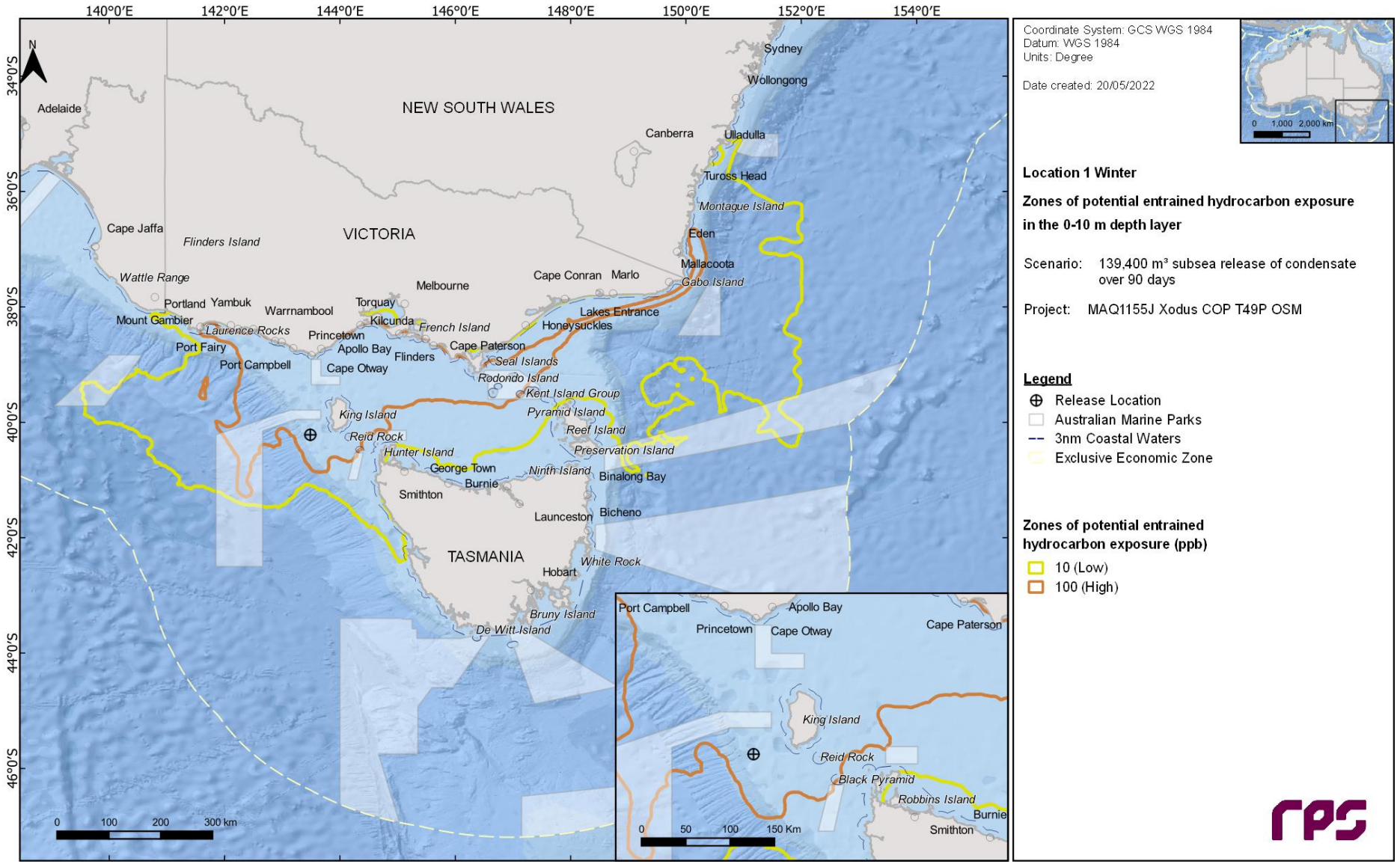


Figure 13.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.3 Deterministic Analysis

13.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore of 20 m^3 was identified as run number 43 which commenced during winter conditions, 1 am 23rd June 2010.

Figure 13.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 19.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 120 days are presented in Figure 13.11 and Figure 13.12, respectively.

Figure 13.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 76,470 m^3 (~55%) was lost to the atmosphere through evaporation. Approximately, 61,145 m^3 (~44%) of the released volume decayed, while approximately 1,740 m^3 (~1%) was predicted to remain within the water column and approximately 10 m^3 (<0.01%) was present on the shorelines.

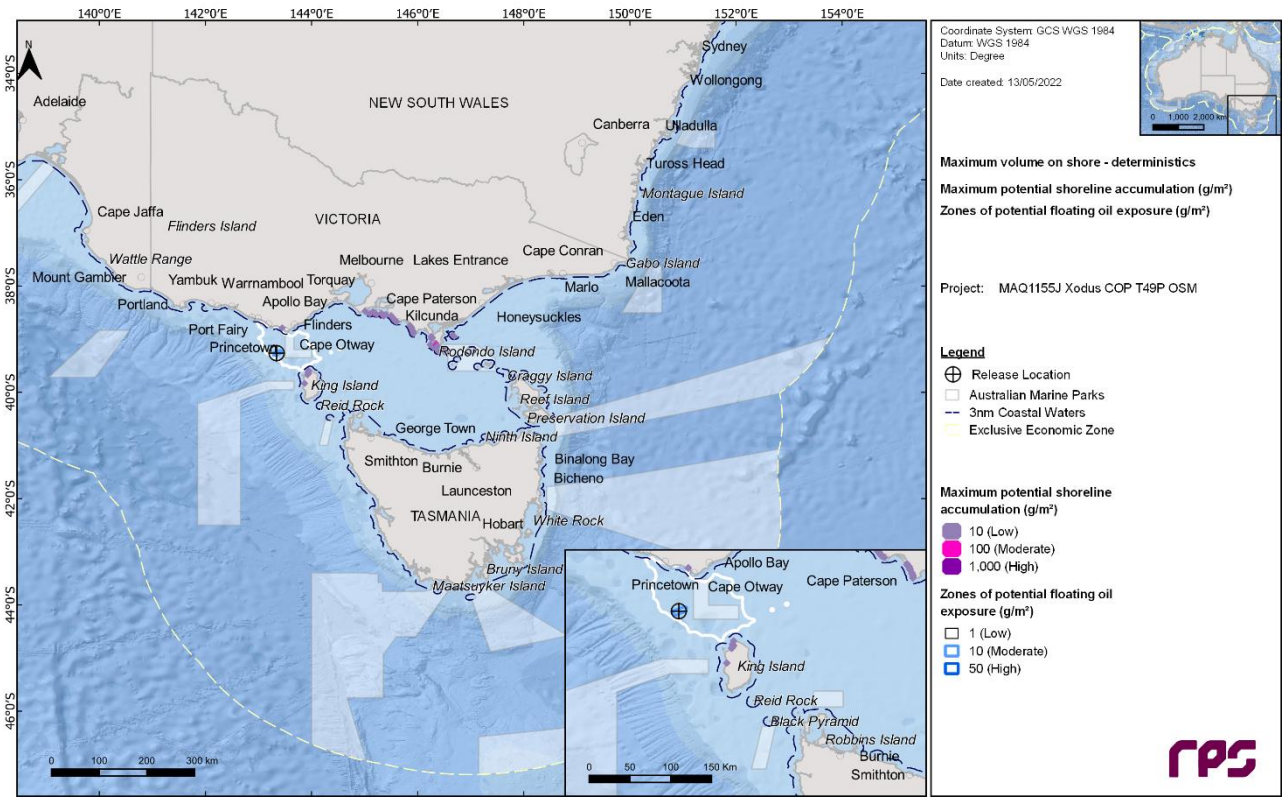


Figure 13.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

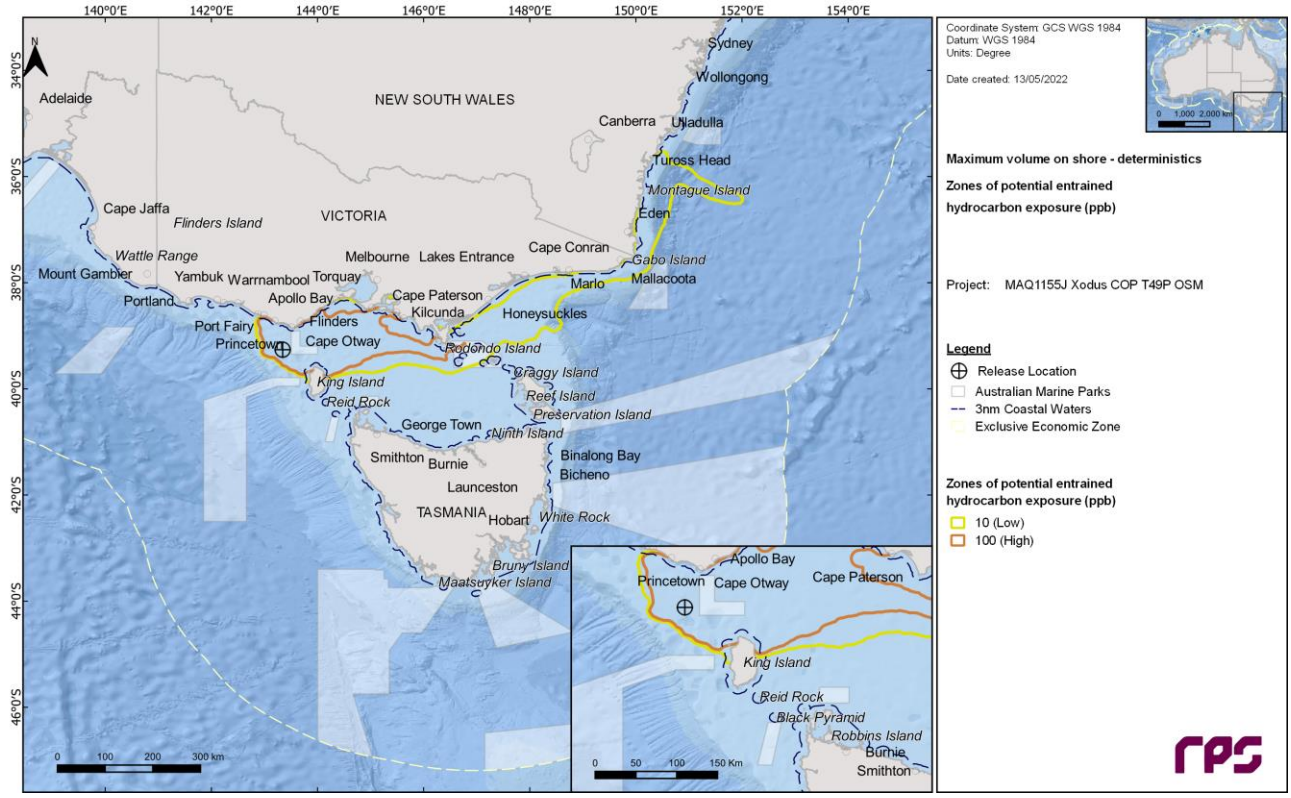


Figure 13.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

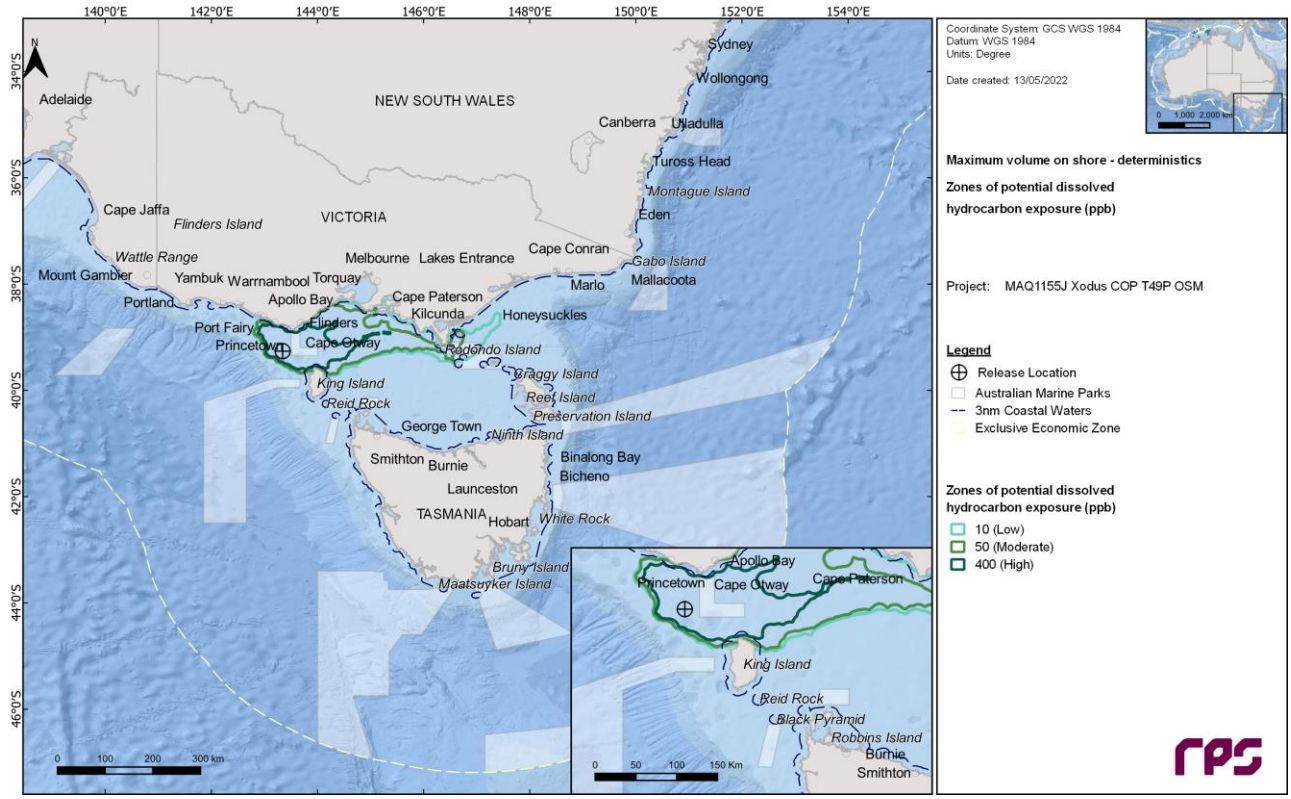


Figure 13.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

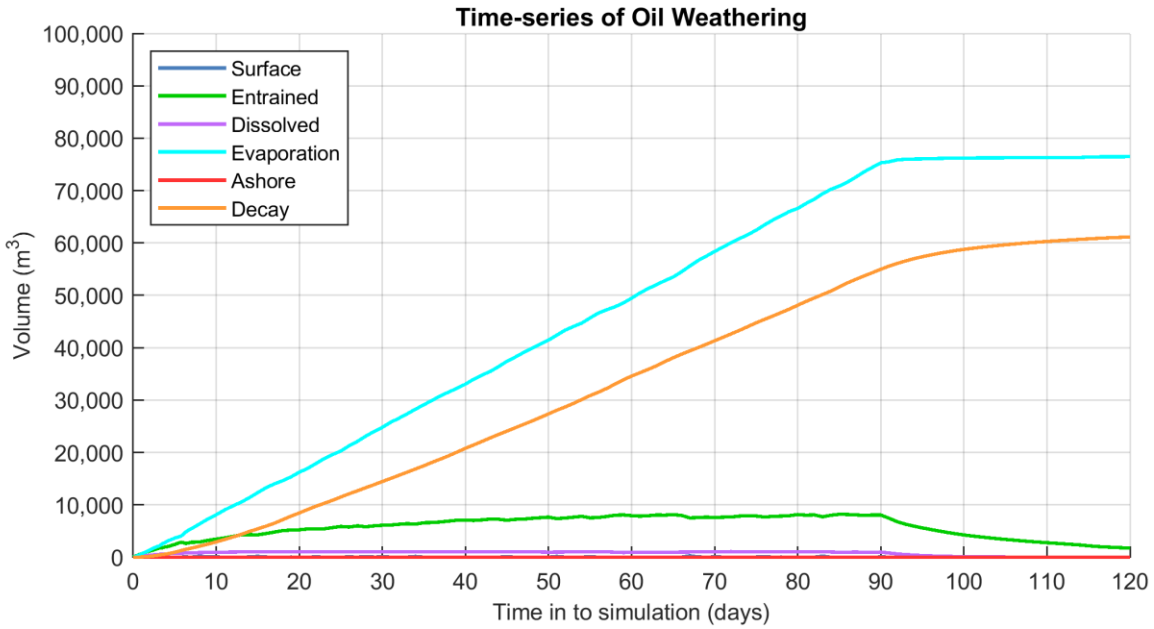


Figure 13.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

14 LOCATION 2 LOWC RESULTS

This scenario examined the potential exposure following a subsea LOWC at Location 2. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 14.1 presents the low threshold EMBA, Section 14.2 shows the seasonal (or stochastic) analysis results, while Section 14.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

14.1 EMBA

Figure 14.1 shows the EMBA for Location 2. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

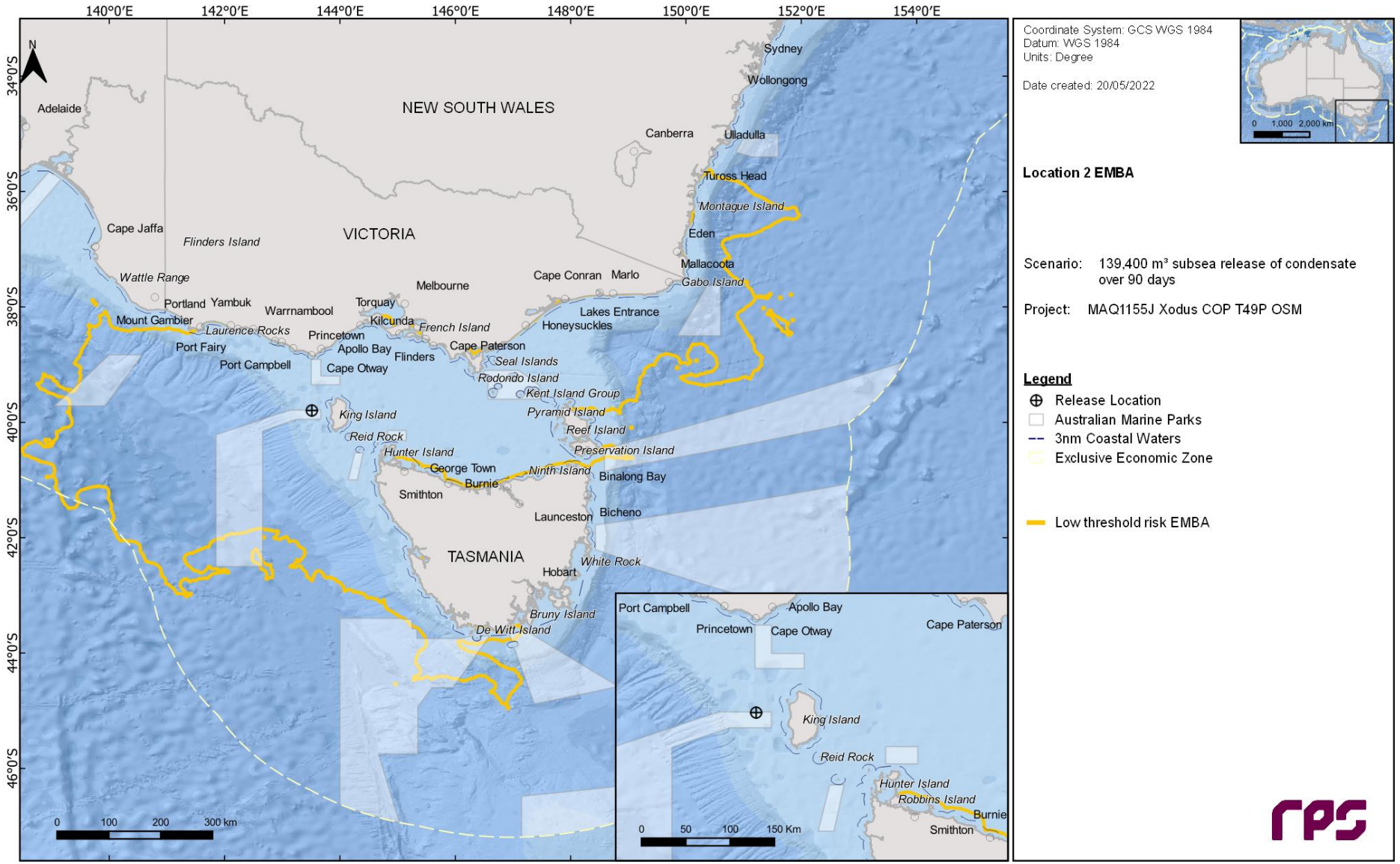


Figure 14.1 Predicted low threshold EMBA from a subsea LOWC at Location 2. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

14.2 Stochastic Analysis

14.2.1 Floating Oil Exposure

Table 14-1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 14-2 summarises the potential floating oil exposure to individual receptors for each season. The exposure by floating oil to BIAs can be found in Appendix A.

Figure 14.2 to Figure 14.3 illustrate the extent of floating oil exposure for each season.

The largest swept area of floating oil exposure at or above the low threshold during winter and summer conditions for a single simulation was 1,278 km^2 and 1,035 km^2, respectively.

Table 14-1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	125.7	42.7	0.3
	Maximum distance (km) from release location (99th percentile)	79.8	9.2	0.3
	Direction	ENE	SE	W
Winter	Maximum distance (km) from release location	147.4	42.7	0.3
	Maximum distance (km) from release location (99th percentile)	93.2	12.7	0.3
	Direction	NE	SE	W

Table 14-2 Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 2 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	7	-	-	20.96	-	-	29	-	-	13.04	-	-
	Zeehan	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
IBRA	King Island	95	5	-	2.29	15.79	-	100	11	-	1.17	21.42	-
IMCRA	Central Bass Strait	44	-	-	8.96	-	-	75	-	-	2.08	-	-
	Otway	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
KEF	West Tasmania Canyons	63	-	-	2.33	-	-	29	-	-	3.92	-	-
Near Shore Waters	King Island	95	5	-	2.29	15.79	-	100	11	-	1.17	21.42	-
	Reid Rock	-	-	-	-	-	-	7	-	-	13.71	-	-
State Waters	Tasmania	99	5	-	1.17	15.79	-	100	11	-	0.92	21.42	-

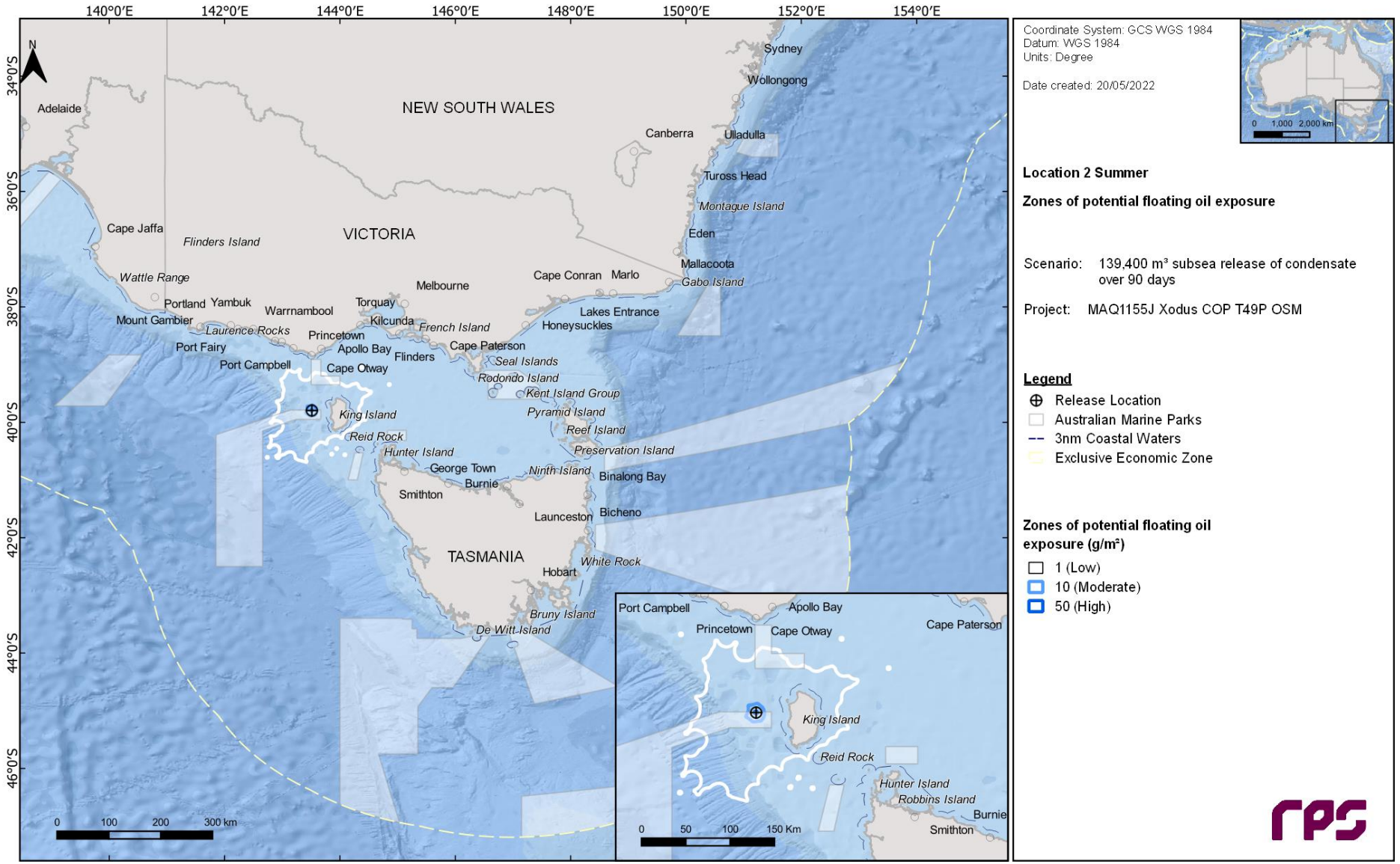


Figure 14.2 Zones of potential floating oil exposure from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

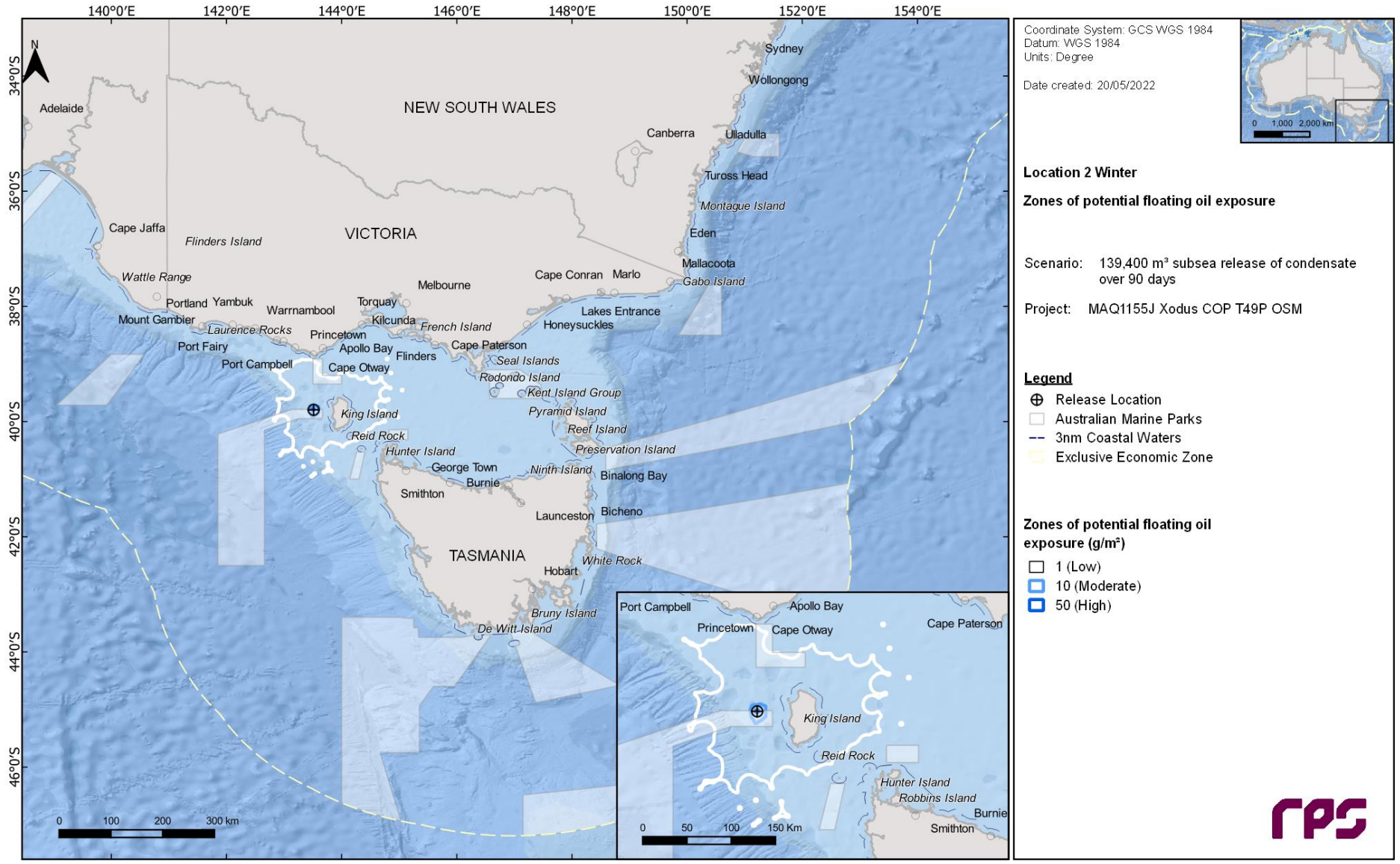


Figure 14.3 Zones of potential floating oil exposure from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.2.2 Shoreline Accumulation

Table 14-3 summarises the predicted accumulation on any shoreline during each season.

Table 14-4 to Table 14-6 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 14.4 and Figure 14.5.

Table 14-3 Summary of accumulation on any shoreline from a subsea LOWC at Location 2 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	100	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	3.88	3.21
Maximum volume of hydrocarbons ashore (m^3)	71.7	196.6
Average volume of hydrocarbons ashore (m^3)	17.8	73.9
Maximum length of the shoreline at **10 g/m^2** (km)	112	131
Average shoreline length (km) at **10 g/m^2** (km)	64.9	90
Maximum length of the shoreline at **100 g/m^2** (km)	35	50
Average shoreline length (km) at **100 g/m^2** (km)	12.3	28.9
Maximum length of the shoreline at **1,000 g/m^2** (km)	1	4
Average shoreline length (km) at **1,000 g/m^2** (km)	1	1.5

Table 14-4 Summary of oil accumulation on individual shoreline sectors from a subsea LOWC at Location 2 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Albatross Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anser Island	1	-	-	82.25	-	-	3	14	< 0.1	< 0.1	1	-	-	1	-	-
Bega Valley	5	-	-	72.17	-	-	3	42	< 0.1	< 0.1	2.7	-	-	3.8	-	-
Circular Head	17	-	-	35.75	-	-	1	81	< 0.1	0.5	2.8	-	-	9.6	-	-
Colac Otway	2	-	-	30.21	-	-	1	27	< 0.1	< 0.1	2.9	-	-	4.8	-	-
Corangamite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Curtis Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Gippsland	3	-	-	75.54	-	-	2	14	< 0.1	< 0.1	1	-	-	1	-	-
Gabo Island	2	-	-	94.71	-	-	3	14	< 0.1	< 0.1	1	-	-	1	-	-
Glennie Group	6	-	-	75.79	-	-	2	24	< 0.1	< 0.1	1.4	-	-	3.8	-	-
Greater Geelong	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hogan Island Group	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hunter Island	3	-	-	69.04	-	-	1	31	< 0.1	< 0.1	1.9	-	-	2.9	-	-
Huon Valley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kanowna Island	2	-	-	89.92	-	-	2	18	< 0.1	< 0.1	1	-	-	1	-	-
Kent Island Group	4	-	-	95.75	-	-	1	49	< 0.1	0.5	3.3	-	-	3.8	-	-
King Island	100	96	22	3.88	5.04	16.08	37	3,581	17.7	71.6	58.9	11.7	1	88.9	33.5	1
Moncoeur Islands	1	-	-	103.79	-	-	1	22	< 0.1	< 0.1	1	-	-	1	-	-
Mornington Peninsula	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norman Island	6	-	-	57.63	-	-	4	55	< 0.1	0.2	1.6	-	-	2.9	-	-
Phillip Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reid Rock	25	-	-	12.38	-	-	5	53	< 0.1	< 0.1	1.6	-	-	2.9	-	-
Seal Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Shellback Island	3	-	-	55.08	-	-	6	22	< 0.1	< 0.1	1	-	-	1	-	-
Skull Rock	2	-	-	89.92	-	-	2	18	< 0.1	< 0.1	1	-	-	1	-	-
South Gippsland	6	-	-	53.67	-	-	2	73	< 0.1	1.6	19	-	-	34.4	-	-
Surf Coast	2	-	-	33.58	-	-	1	16	< 0.1	< 0.1	1.4	-	-	1.9	-	-
Three Hummock Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wellington	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Coast	9	-	-	42.21	-	-	1	43	< 0.1	1.5	4.8	-	-	18.2	-	-
Anglesea	1	-	-	38.04	-	-	1	10	< 0.1	< 0.1	1	-	-	1	-	-
Apollo Bay	1	-	-	30.21	-	-	1	16	< 0.1	< 0.1	1	-	-	1	-	-
Bega Valley	5	-	-	72.17	-	-	3	42	< 0.1	< 0.1	2.7	-	-	3.8	-	-
Cape Howe / Mallacoota	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cape Liptrap (NW)	5	-	-	53.67	-	-	3	73	< 0.1	0.8	9.6	-	-	13.4	-	-
Cape Otway West	1	-	-	76.92	-	-	1	27	< 0.1	< 0.1	4.8	-	-	4.8	-	-
Cape Patton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croajingolong (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croajingolong (West)	2	-	-	104.83	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
Golden Beach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lorne	2	-	-	33.58	-	-	1	16	< 0.1	< 0.1	1	-	-	1	-	-
McLoughlins Beach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moonlight Head	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mornington Peninsula (SW)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Point Hicks	1	-	-	75.54	-	-	2	11	< 0.1	< 0.1	1	-	-	1	-	-
Port Phillip (Queenscliff)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Port Phillip (Sorrento Shore)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seaspray	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sydenham Inlet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waratah Bay	4	-	-	53.92	-	-	1	37	< 0.1	< 0.1	2.6	-	-	4.8	-	-
Wilsons Promontory (East)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Wilsons Promontory (West)	6	-	-	53.83	-	-	2	65	< 0.1	0.8	9.2	-	-	17.2	-	-

Table 14-5 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 2 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Albatross Island	1	-	-	84.21	-	-	2	12	< 0.1	< 0.1	1	-	-	1	-	-
Anser Island	16	-	-	18.88	-	-	8	74	< 0.1	< 0.1	1.3	-	-	1.9	-	-
Bega Valley	2	-	-	46.04	-	-	1	51	< 0.1	< 0.1	2.4	-	-	2.9	-	-
Circular Head	24	2	-	18.63	64.92	-	2	103	< 0.1	1.4	7.3	1	-	13.4	1	-
Colac Otway	4	-	-	22.96	-	-	2	21	< 0.1	< 0.1	2.2	-	-	4.8	-	-
Corangamite	1	-	-	65.92	-	-	3	12	< 0.1	< 0.1	1	-	-	1	-	-
Curtis Island	8	-	-	17.71	-	-	3	27	< 0.1	< 0.1	1.6	-	-	1.9	-	-
East Gippsland	7	-	-	26.92	-	-	2	41	< 0.1	0.3	8.1	-	-	9.6	-	-
Gabo Island	3	-	-	48.71	-	-	3	23	< 0.1	< 0.1	1	-	-	1	-	-
Glennie Group	16	-	-	19.38	-	-	4	50	< 0.1	0.2	3.1	-	-	6.7	-	-
Greater Geelong	1	-	-	111.33	-	-	< 1	11	< 0.1	< 0.1	1	-	-	1	-	-
Hogan Island Group	9	-	-	26.83	-	-	2	24	< 0.1	< 0.1	1.4	-	-	2.9	-	-
Hunter Island	17	-	-	23.92	-	-	2	75	< 0.1	0.3	3.5	-	-	10.5	-	-
Huon Valley	2	-	-	72.25	-	-	< 1	13	< 0.1	< 0.1	1.4	-	-	1.9	-	-
Kanowna Island	13	-	-	19	-	-	5	88	< 0.1	0.2	1.7	-	-	2.9	-	-
Kent Island Group	35	5	-	18.38	41.79	-	4	111	< 0.1	1.7	3.6	1	-	8.6	1	-
King Island	100	100	80	3.21	4.04	9.75	81	4,630	73.7	196.3	75.8	27.6	1.4	97.5	47.8	3.8
Moncoeur Islands	9	-	-	16.17	-	-	3	19	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Mornington Peninsula	3	-	-	66.54	-	-	1	22	< 0.1	< 0.1	1	-	-	1	-	-
Norman Island	15	1	-	29.33	115.88	-	6	104	< 0.1	1.3	2.2	1	-	3.8	1	-
Phillip Island	3	-	-	45.88	-	-	1	13	< 0.1	< 0.1	1	-	-	1	-	-
Reid Rock	21	-	-	11.17	-	-	5	32	< 0.1	< 0.1	2	-	-	2.9	-	-
Seal Islands	6	-	-	48.54	-	-	3	38	< 0.1	< 0.1	2.7	-	-	3.8	-	-

Shellback Island	6	-	-	29.79	-	-	6	21	< 0.1	< 0.1	1	-	-	1	-	-
Skull Rock	12	-	-	19	-	-	5	88	< 0.1	0.2	1.3	-	-	1.9	-	-
South Gippsland	26	1	-	19.25	53.17	-	3	108	< 0.1	3.5	6.3	1	-	29.6	1	-
Surf Coast	3	-	-	65.46	-	-	2	15	< 0.1	< 0.1	2.2	-	-	4.8	-	-
Three Hummock Island	2	-	-	54.96	-	-	2	15	< 0.1	< 0.1	1	-	-	1	-	-
Wellington	3	-	-	57.42	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
West Coast	22	-	-	22.79	-	-	2	59	< 0.1	0.5	8.8	-	-	23.9	-	-
Anglesea	1	-	-	91.54	-	-	2	11	< 0.1	< 0.1	1	-	-	1	-	-
Apollo Bay	2	-	-	90.88	-	-	2	13	< 0.1	< 0.1	1.4	-	-	1.9	-	-
Bega Valley	2	-	-	46.04	-	-	1	51	< 0.1	< 0.1	2.4	-	-	2.9	-	-
Cape Howe / Mallacoota	6	-	-	27.46	-	-	3	41	< 0.1	0.3	4.5	-	-	5.7	-	-
Cape Liptrap (NW)	7	-	-	26.96	-	-	3	55	< 0.1	0.4	4.9	-	-	12.4	-	-
Cape Otway West	1	-	-	22.96	-	-	2	21	< 0.1	< 0.1	4.8	-	-	4.8	-	-
Cape Patton	1	-	-	63.83	-	-	2	13	< 0.1	< 0.1	1	-	-	1	-	-
Croajingolong (East)	5	-	-	27.79	-	-	2	22	< 0.1	< 0.1	2.7	-	-	4.8	-	-
Croajingolong (West)	6	-	-	26.92	-	-	2	23	< 0.1	0.3	1.8	-	-	3.8	-	-
Golden Beach	1	-	-	70.79	-	-	2	14	< 0.1	< 0.1	1	-	-	1	-	-
Lorne	3	-	-	65.46	-	-	3	15	< 0.1	< 0.1	1.9	-	-	3.8	-	-
McLoughlins Beach	1	-	-	102.46	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
Moonlight Head	1	-	-	65.92	-	-	3	12	< 0.1	< 0.1	1	-	-	1	-	-
Mornington Peninsula (SW)	2	-	-	91.08	-	-	1	22	< 0.1	< 0.1	1	-	-	1	-	-
Point Hicks	3	-	-	26.96	-	-	2	23	< 0.1	< 0.1	1.3	-	-	1.9	-	-
Port Phillip (Queenscliff)	1	-	-	111.33	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
Port Phillip (Sorrento Shore)	1	-	-	66.54	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
Seaspray	1	-	-	57.42	-	-	2	10	< 0.1	< 0.1	1	-	-	1	-	-
Sydenham Inlet	2	-	-	44.63	-	-	< 1	13	< 0.1	< 0.1	1	-	-	1	-	-
Waratah Bay	6	-	-	28.54	-	-	2	43	< 0.1	< 0.1	1.3	-	-	2.9	-	-
Wilsons Promontory (East)	5	-	-	61.54	-	-	2	18	< 0.1	< 0.1	1	-	-	1	-	-

Wilsons Promontory (West)	25	1	-	19.25	53.17	-	4	108	< 0.1	3	4.6	1	-	14.3	1	-

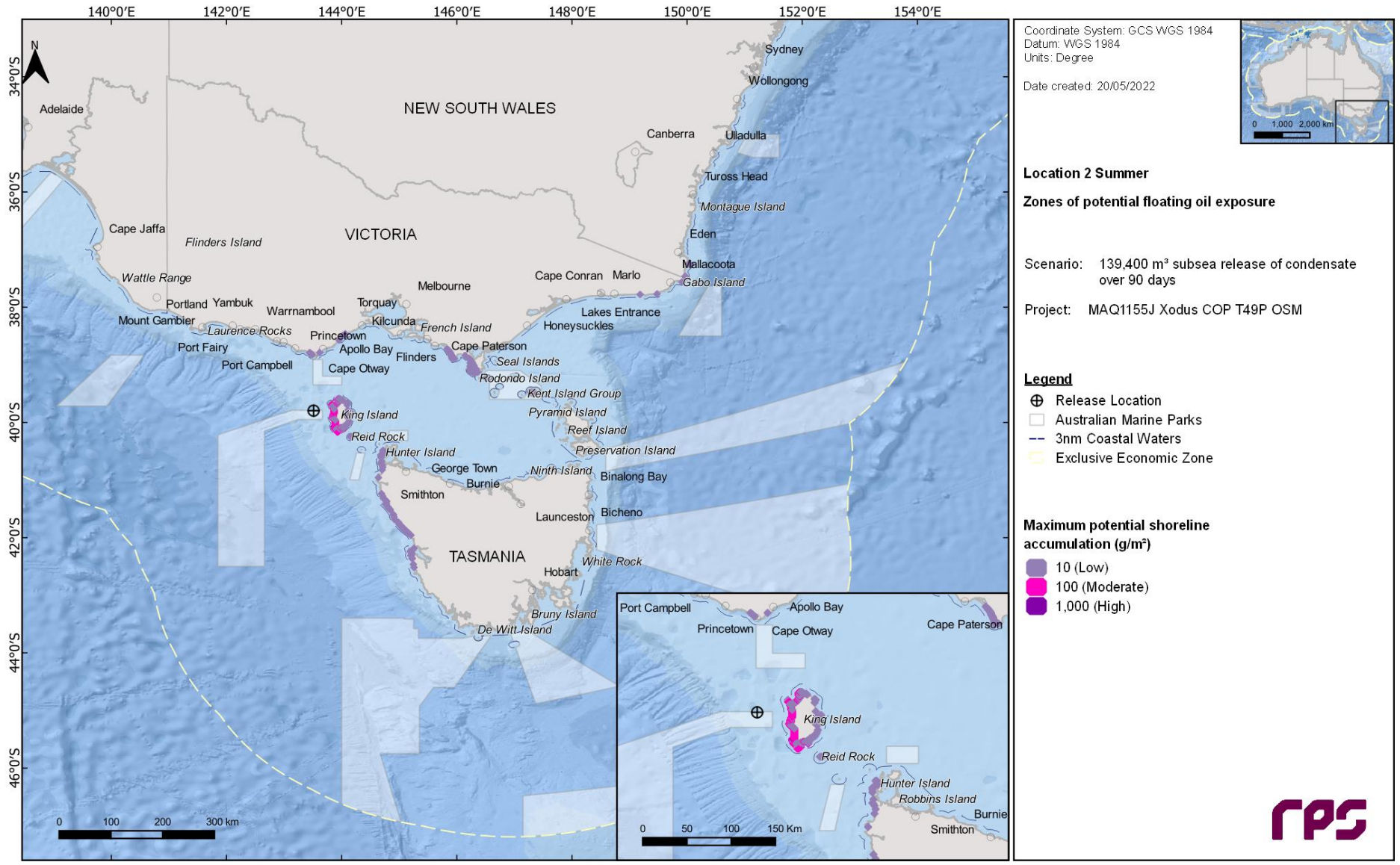


Figure 14.4 Maximum potential shoreline loading from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

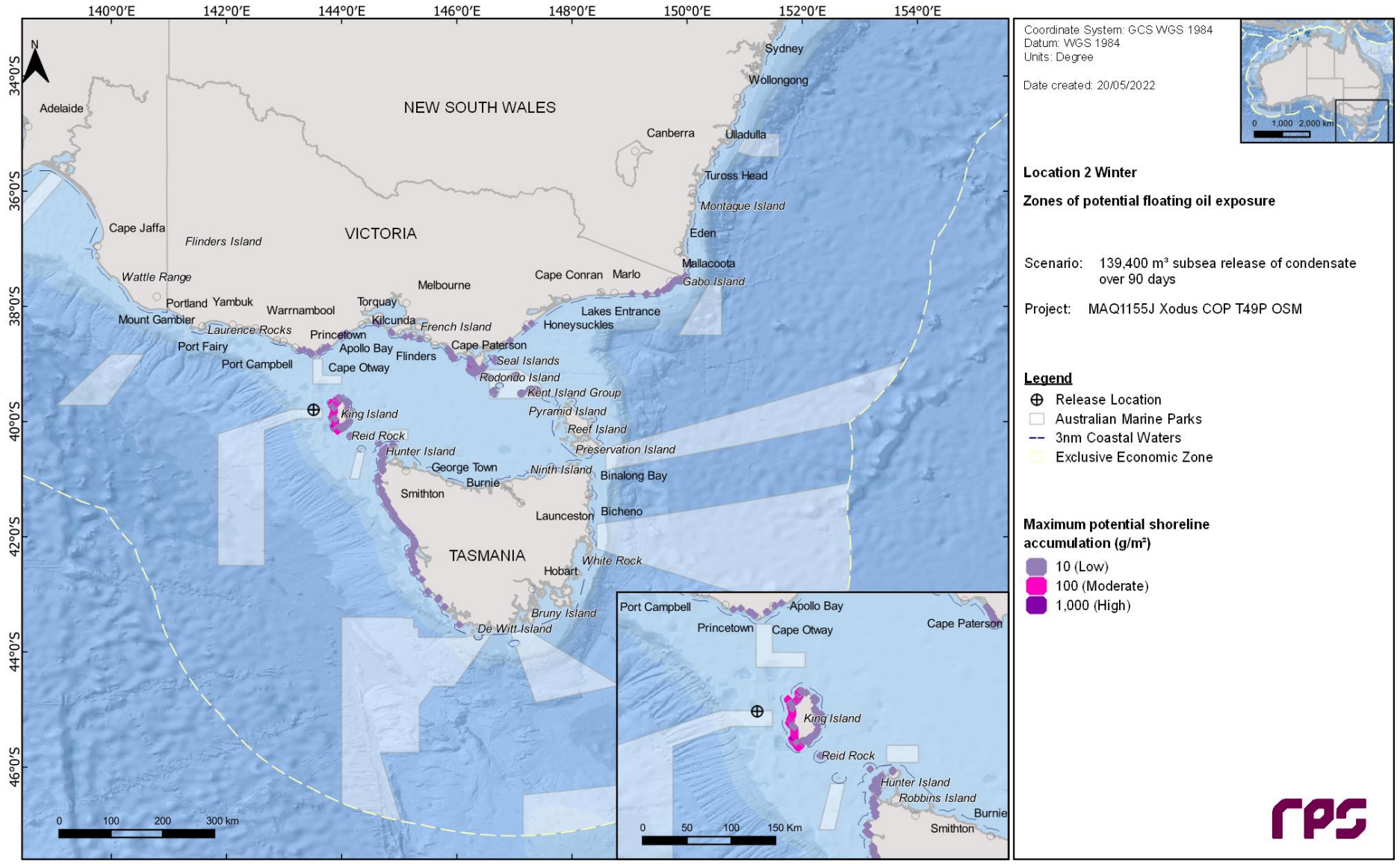


Figure 14.5 Maximum potential shoreline loading from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.2.3 In-water exposure

14.2.3.1 Dissolved Hydrocarbons

Table 14-6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – -10 m depth layer.

Table 14-7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m depth layer for each threshold and season.

Figure 14.6 and Figure 14.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers. Figures showing the extent of dissolved hydrocarbon exposure in the 10-20 m, 20 – 30 m and 30 – 50 m depth layers for each season are presented in Appendix A.

Table 14-6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	590	461	229
	Maximum distance (km) from release location (99^{th} percentile)	435	304	146
	Direction	ENE	ENE	ENE
Winter	Maximum distance (km) from release location	703	483	313
	Maximum distance (km) from release location (99^{th} percentile)	530	337	163
	Direction	ENE	ENE	ENE

Table 14-7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Mod	High		Low	Mod	High
AMP	Apollo	2,096	50	31	8	1,800	82	54	9
	Beagle	188	10	5	-	352	33	7	-
	Boags	181	23	4	-	176	17	4	-
	Franklin	622	63	22	2	573	42	12	1
	Nelson	19	1	-	-	14	1	-	-
	Tasman Fracture	-	-	-	-	11	1	-	-
	Zeehan	7,248	100	100	100	9,003	100	100	100
IBRA	East Gippsland Lowlands	17	1	-	-	42	2	-	-
	Flinders	200	7	2	-	178	29	4	-
	Gippsland Plain	58	3	1	-	45	8	-	-
	King Island	3,459	100	100	85	4,540	100	100	100
	Otway Plain	30	3	-	-	40	4	-	-
	Otway Ranges	63	2	1	-	50	2	-	-
	Strzelecki Ranges	76	2	1	-	44	8	-	-
	Tasmanian West	60	6	1	-	89	7	1	-
	Warrnambool Plain	13	1	-	-	-	-	-	-
	Wilsons Promontory	130	5	2	-	173	28	4	-
IMCRA	Batemans Shelf	-	-	-	-	18	1	-	-
	Boags	123	22	3	-	99	17	3	-
	Central Bass Strait	3,540	93	80	12	2,656	100	96	37
	Central Victoria	661	15	6	1	769	28	15	2
	Davey	20	1	-	-	14	1	-	-
	Flinders	396	11	6	-	527	45	12	1
	Franklin	623	66	24	1	701	33	13	1
	Otway	7,872	100	100	100	9,003	100	100	100
	Twofold Shelf	200	9	3	-	475	20	4	1
	Victorian Embayments	15	1	-	-	14	1	-	-
KEF	Upwelling East of Eden	-	-	-	-	77	1	1	-
	West Tasmania Canyons	115	4	1	-	91	6	1	-
MNP	Bunurong	5,000	96	87	51	1,980	61	49	12
	Cape Howe	42	2	-	-	28	2	-	-
	Corner Inlet	-	-	-	-	23	2	-	-
	Ninety Mile Beach	-	-	-	-	149	1	1	-
	Point Addis	-	-	-	-	30	1	-	-
	Point Hicks	-	-	-	-	16	1	-	-

	Wilsons Promontory	15	1	-	-	18	2	-	-
MS	Mushroom Reef	21	4	-	-	193	19	2	-
NPS4	Bunurong Marine Park	16	1	-	-	92	6	1	-
	Corner Inlet Marine and Coastal Park	46	2	-	-	11	1	-	-
	Nooramunga Marine and Coastal Park	-	-	-	-	77	1	1	-
	Shallow Inlet Marine and Coastal Park	-	-	-	-	26	2	-	-
	Wilsons Promontory Marine Park	-	-	-	-	16	1	-	-
	Wilsons Promontory Marine Reserve	14	1	-	-	121	6	1	-
NP	Kent Group	10	1	-	-	74	12	1	-
Ramsar	Corner Inlet	-	-	-	-	65	2	1	-
	Lavinia	468	48	15	1	716	80	38	1
RSB	Bell Reef	492	83	49	1	824	78	40	2
	Brown Rocks	20	4	-	-	26	9	-	-
	Cody Bank	74	4	1	-	74	16	1	-
	Cutter Rock	56	6	2	-	66	24	2	-
	Endeavour Reef	16	1	-	-	14	1	-	-
	New Zealand Star Bank	11	1	-	-	14	1	-	-
	Wakitipu Rock	-	-	-	-	22	2	-	-
	Warrego Rock	11	1	-	-	-	-	-	-
	Wright Rock	-	-	-	-	13	1	-	-
Near Shore Waters	Albatross Island	64	13	1	-	55	6	1	-
	Anser Island	16	2	-	-	87	13	1	-
	Bass Coast	46	2	-	-	28	1	-	-
	Bega Valley	-	-	-	-	42	2	-	-
	Black Pyramid	372	57	15	-	292	30	9	-
	Circular Head	73	9	1	-	122	9	2	-
	Colac Otway	63	3	1	-	50	4	-	-
	Curtis Island	119	7	1	-	116	29	3	-
	East Gippsland	17	1	-	-	31	1	-	-
	Glennie Group	16	4	-	-	74	14	1	-
	Hogan Island Group	200	7	2	-	178	20	4	-
	Hunter Island	36	4	-	-	113	7	1	-
	Kanowna Island	17	2	-	-	110	16	2	-
	Kent Island Group	39	1	-	-	47	8	-	-
	King Island	3,459	100	100	85	4,540	100	100	99
	Maatsuyker Island	-	-	-	-	12	1	-	-
	Moncoeur Islands	65	4	1	-	138	28	4	-
	Mornington Peninsula	10	1	-	-	30	1	-	-
	Moyne	13	1	-	-	-	-	-	-
	Norman Island	13	1	-	-	40	7	-	-
	Phillip Island	58	2	1	-	21	1	-	-

	Pyramid Island	-	-	-	-	21	1	-	-
	Reid Rock	1,196	88	64	4	2,655	91	70	14
	Robbins Island	20	1	-	-	-	-	-	-
	Rodondo Island	58	5	1	-	173	28	4	-
	Round Top Island	-	-	-	-	11	1	-	-
	Seal Islands	11	1	-	-	40	4	-	-
	Shellback Island	11	1	-	-	23	4	-	-
	Skull Rock	13	3	-	-	91	17	2	-
	South Gippsland	76	3	1	-	167	17	2	-
	Surf Coast	38	1	-	-	26	2	-	-
	Three Hummock Island	18	2	-	-	35	4	-	-
	Wellington	-	-	-	-	35	2	-	-
	West Coast	60	6	1	-	89	7	1	-
State Waters	New South Wales	-	-	-	-	42	2	-	-
	Tasmania	6,498	100	100	97	5,688	100	100	100
	Victoria	209	8	3	-	280	32	6	-

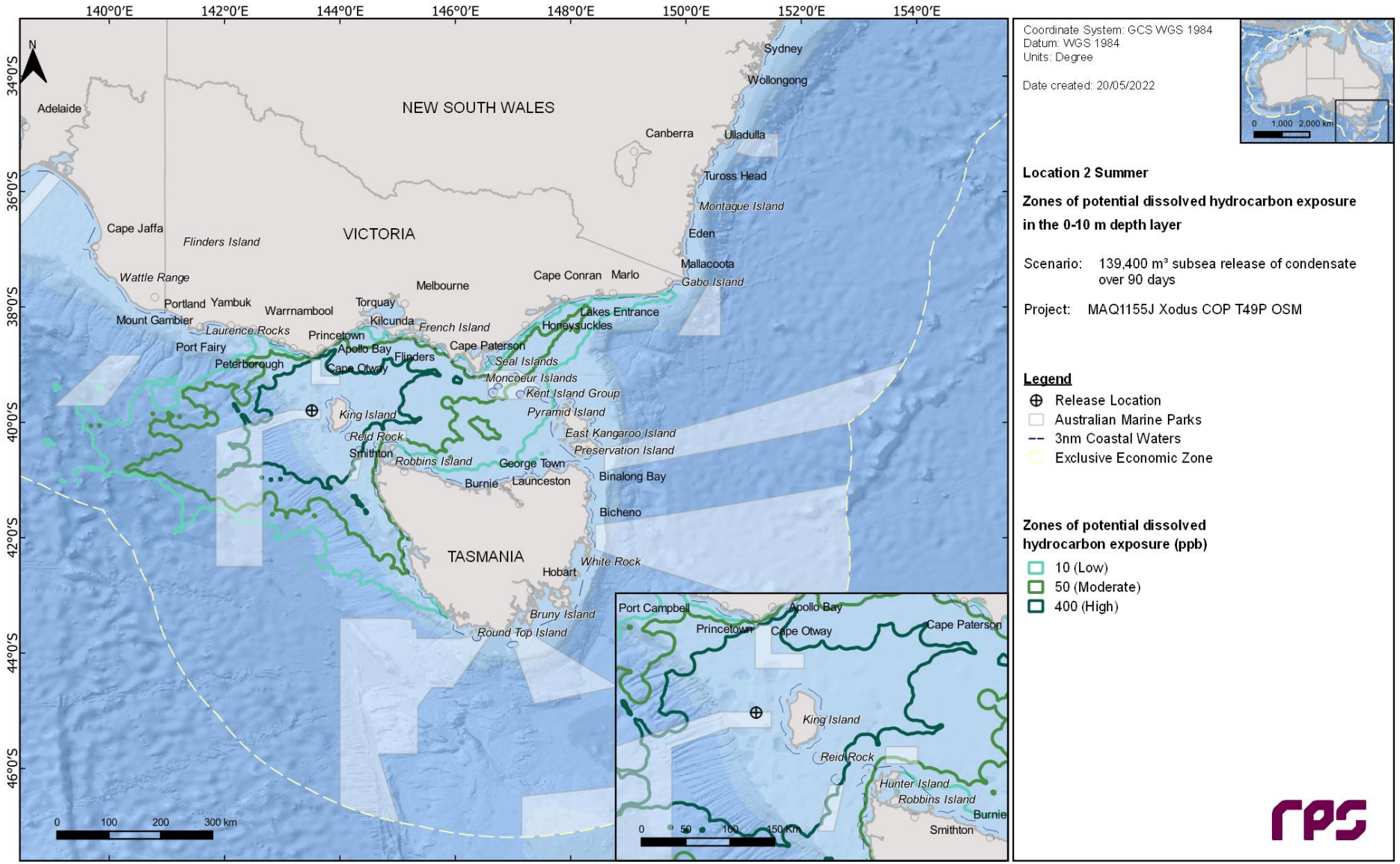


Figure 14.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

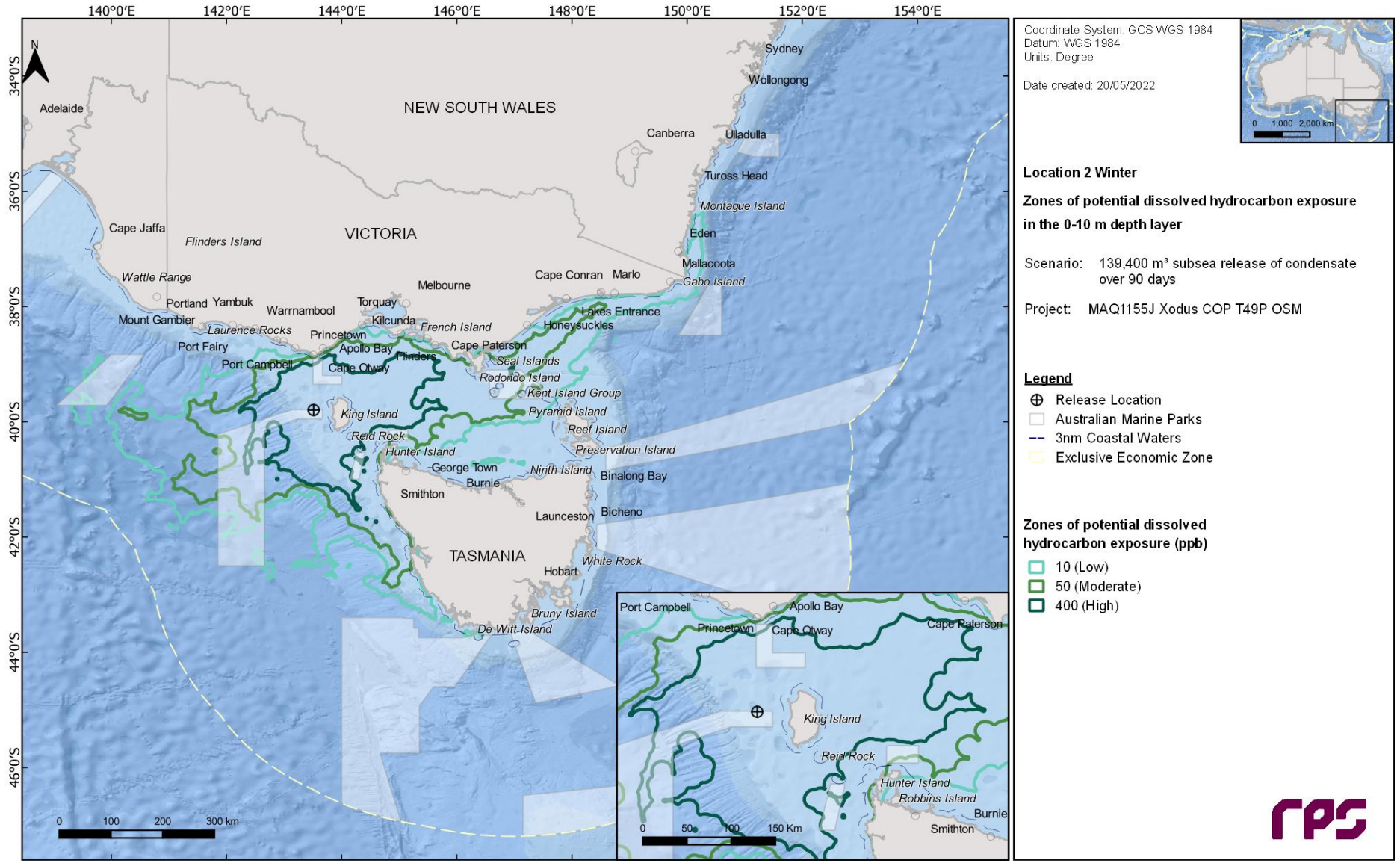


Figure 14.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.2.3.2 Entrained Hydrocarbons

Table 14-8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 14-9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layer, for each season.

Figure 14.8 and Figure 14.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer. Extent of the entrained hydrocarbon exposure for each season in the 10 -20 m and 20 – 30 m depth layers is presented in Appendix A.

Table 14-8 Maximum distance and direction by entrained hydrocarbon exposure (0-10m) from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	831	583
	Maximum distance (km) from release location (99^{th} percentile)	698	334
	Direction	ENE	ENE
Winter	Maximum distance (km) from release location	831	579
	Maximum distance (km) from release location (99^{th} percentile)	755	325
	Direction	ENE	ENE

Table 14-9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	905	94	48	972	99	72
	Beagle	206	43	5	188	86	8
	Boags	269	84	12	257	91	16
	East Gippsland	30	7	-	28	9	-
	Flinders	14	4	-	11	1	-
	Franklin	348	99	41	315	84	18
	Huon	12	2	-	-	-	-
	Nelson	50	5	-	63	2	-
	Tasman Fracture	18	2	-	35	6	-
	Zeehan	12,031	100	100	12,738	100	100
CA	Arthur Bay	12	2	-	11	1	-
IBRA	Bateman	12	3	-	18	13	-
	Bridgewater	24	3	-	22	3	-
	East Gippsland Lowlands	58	17	-	53	35	-
	Flinders	211	37	5	169	86	2
	Gippsland Plain	159	22	3	143	40	5
	Glenelg Plain	28	3	-	30	3	-
	King Island	2,694	100	100	2,939	100	100
	Otway Plain	158	21	1	157	22	1
	Otway Ranges	79	14	-	76	20	-
	South East Coastal Ranges	-	-	-	14	3	-
	Strzelecki Ranges	133	21	3	109	41	1
	Tasmanian South East	15	5	-	14	1	-
	Tasmanian Southern Ranges	11	2	-	-	-	-
	Tasmanian West	133	61	7	118	37	4

	Warrnambool Plain	51	8	-	60	4	-
	Wilsons Promontory	189	38	4	154	82	13
IMCRA	Batemans Shelf	75.3	6	-	32.5	2	-
	Boags	4392.6	42	18	3439.9	63	32
	Bruny	563.0	13	6	740.8	76	23
	Central Bass Strait	23.2	1	-	11.8	2	-
	Central Victoria	30	12	-	31	22	-
	Davey	214	84	7	200	83	13
	Flinders	11	1	-	-	-	-
	Franklin	1,054	100	85	1,309	100	100
	Freycinet	422	40	6	419	71	24
	Otway	28	20	-	86	9	-
	Twofold Shelf	211	49	6	188	89	13
	Victorian Embayments	52	8	-	42	13	-
KEF	Big Horseshoe Canyon	17	5	-	26	19	-
	Bonney Coast Upwelling	62	3	-	71	4	-
	Canyons on the eastern continental slope	19	3	-	28	11	-
	Seamounts South and east of Tasmania	-	-	-	27	6	-
	Shelf rocky reefs	18	3	-	25	14	-
	Upwelling East of Eden	120	23	4	110	55	1
	West Tasmania Canyons	1,631	99	94	1,400	80	57
MNP	Bunurong	104	14	2	90	28	-
	Cape Howe	47	17	-	41	27	-
	Churchill Island	18	7	-	17	10	-
	Ninety Mile Beach	11	2	-	14	4	-
	Point Addis	44	9	-	49	8	-
	Point Hicks	43	19	-	49	45	-
	Port Phillip Heads	39	8	-	47	8	-
	Twelve Apostles	27	10	-	31	4	-

	Wilsons Promontory	152	38	3	154	72	13
	Batemans	14	3	-	21	17	-
MS	Beware Reef	17	9	-	22	9	-
	Marengo Reefs	38	13	-	43	18	-
	Merri	20	3	-	27	3	-
	Mushroom Reef	20	4	-	31	8	-
	The Arches	13	3	-	15	3	-
NP	Kent Group	61	30	-	100	74	1
NPS4	Bunurong Marine Park	72	11	-	63	20	-
	Corner Inlet Marine and Coastal Park	60	8	-	52	10	-
	Nooramunga Marine and Coastal Park	-	-	-	13	4	-
	Shallow Inlet Marine and Coastal Park	55	4	-	46	9	-
	Wilsons Promontory Marine Park	167	20	3	143	39	5
	Wilsons Promontory Marine Reserve	151	32	3	149	49	8
NR	Chappell Islands	30	5	-	23	2	-
Ramsar	Corner Inlet	60	8	-	52	10	-
	Gippsland Lakes	11	2	-	19	6	-
	Lavinia	436	92	19	136	100	10
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	26	8	-	30	8	-
	Western Port	20	7	-	21	9	-
RSB	Bell Reef	401	99	78	440	99	72
	Beware Reef	17	9	-	22	9	-
	Bravenes Rock	102	13	1	108	13	1
	Brown Rocks	73	56	-	81	36	-
	Cody Bank	90	29	-	80	37	-
	Cutter Rock	102	35	1	108	84	1
	Endeavour Reef	26	10	-	25	28	-

	New Zealand Star Bank	94	23	-	87	40	-
	Wakitipu Rock	27	7	-	41	34	-
	Warrego Rock	33	6	-	25	11	-
	Wright Rock	25	11	-	31	37	-
Near Shore Waters	Albatross Island	91	72	-	119	60	2
	Anser Island	110	35	2	142	59	12
	Badger Island	33	5	-	29	2	-
	Bass Coast	80	12	-	65	23	-
	Bega Valley	27	16	-	30	21	-
	Big green Island	21	5	-	18	2	-
	Black Pyramid	285	99	34	274	86	9
	Boxen Island	25	5	-	20	2	-
	Cape Barren Osland	21	5	-	17	2	-
	Chalky Island	19	5	-	16	2	-
	Circular Head	83	62	-	104	43	1
	Clarke Island	21	5	-	16	2	-
	Colac Otway	158	21	1	157	22	1
	Corangamite	47	8	-	57	4	-
	Craggy Island	30	6	-	23	10	-
	Curtis Island	211	37	5	169	86	2
	De Witt Island	14	5	-	-	-	-
	East Gippsland	56	17	-	51	35	-
	East Kangaroo Island	24	5	-	23	2	-
	Eurobodalla	-	-	-	15	5	-
	Flinders Island	20	5	-	18	2	-
	French Island	13	3	-	12	6	-
	Gabo Island	58	17	-	56	22	-
	Glenelg	28	3	-	30	3	-
	Glennie Group	152	37	3	154	60	8
	Goose Island	36	5	-	32	2	-
	Greater Geelong	36	8	-	44	8	-
	Hogan Island Group	146	32	4	142	79	2
	Hunter Island	97	63	-	103	47	1

Huon Valley	29	19	-	47	9	-
Inner Sister Island	23	5	-	15	3	-
Kanowna Island	106	38	2	150	65	13
Kent Island Group	61	29	-	100	75	1
King Island	2,540	100	100	2,939	100	100
Lady Julia Percy Island	62	3	-	66	3	-
Laurence Rocks	30	3	-	36	3	-
Maatsuyker Island	17	9	-	-	-	-
Martins Island	13	3	-	-	-	-
Mewstone	16	2	-	-	-	-
Moncoeur Islands	70	32	-	125	82	2
Montague Island	12	3	-	18	13	-
Mornington Peninsula	39	10	-	47	10	-
Mount Chappell Island	25	5	-	25	2	-
Moyne	51	6	-	60	3	-
Mud Island	23	2	-	27	8	-
Ninth Island	18	5	-	14	1	-
Norman Island	189	29	3	153	43	9
Outer Sister Island	22	5	-	13	3	-
Pasco Group	18	5	-	14	2	-
Phillip Island	47	13	-	42	14	-
Preservation Island	21	5	-	16	2	-
Prime Seal Island	26	5	-	22	2	-
Pyramid Island	27	19	-	44	54	-
Reef Island	20	5	-	22	2	-
Reid Rock	574	100	77	967	100	89
Robbins Island	10	-	-	15	5	-
Rodondo Island	66	36	-	132	74	3
Round Top Island	15	2	-	-	-	-
Seal Islands	31	11	-	78	36	-
Shellback Island	160	20	3	138	37	5
Skull Rock	98	38	-	156	66	13
South Gippsland	176	33	4	153	65	5

	Surf Coast	40	9	-	38	8	-
	Three Hummock Island	59	53	-	65	40	-
	Warrnambool	24	3	-	28	3	-
	Wellington	14	6	-	16	6	-
	West Coast	133	61	7	118	35	4
State Waters	New South Wales	27	15	-	30	25	-
	Tasmania	2,975	100	100	2,939	100	100
	Victoria	189	39	4	181	82	13

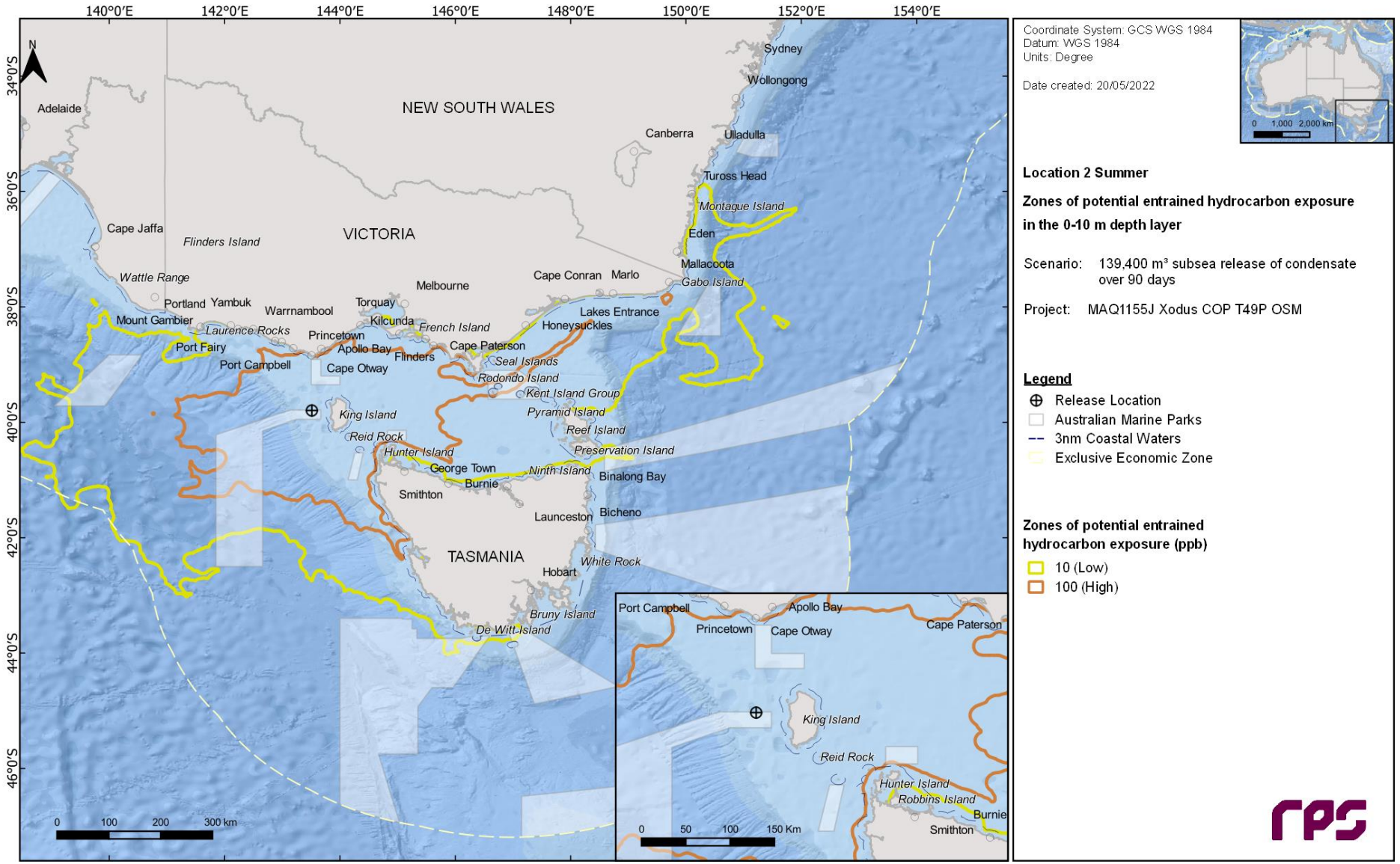


Figure 14.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

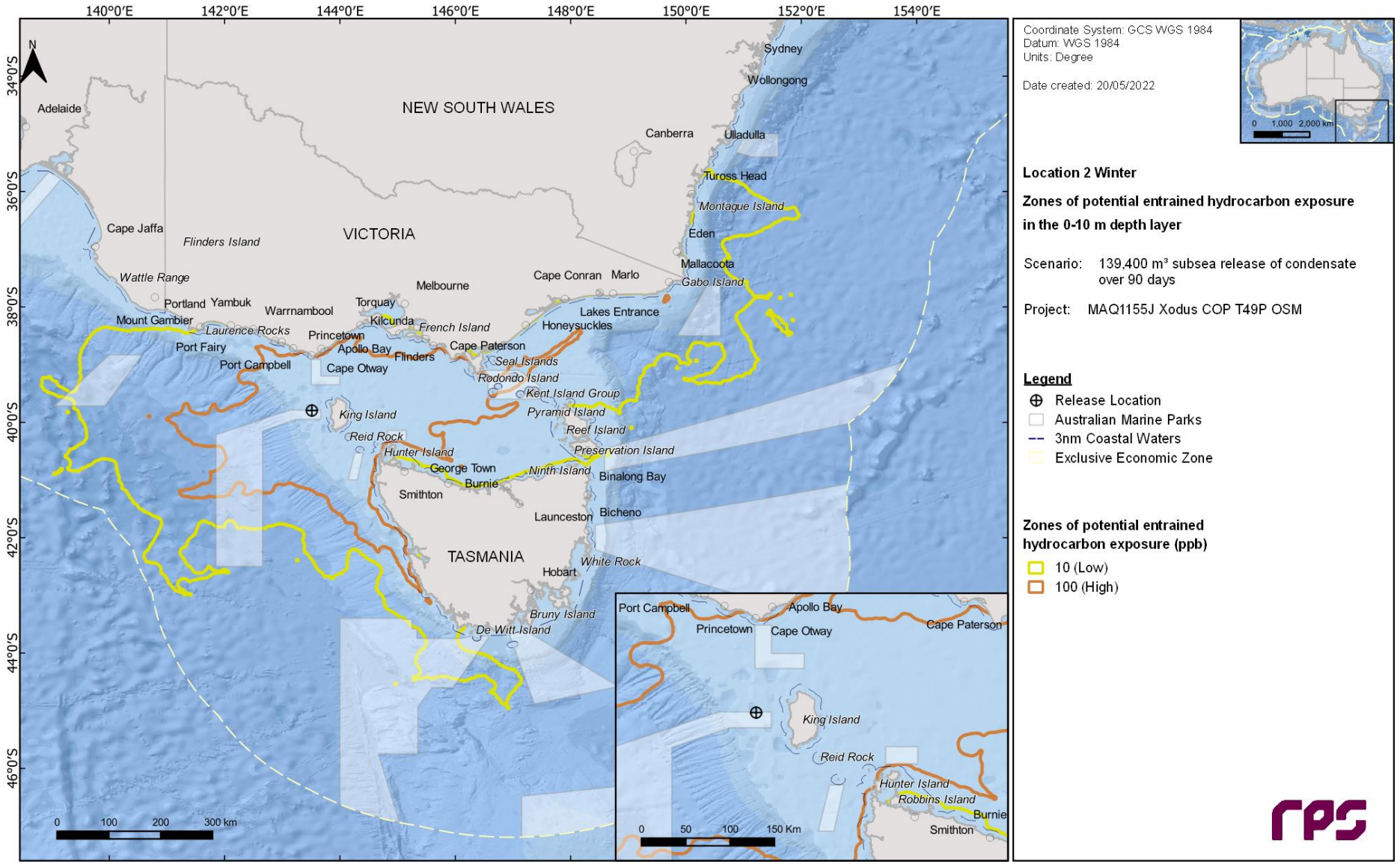


Figure 14.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.3 Deterministic Analysis

14.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore of 196.6 m^3 was identified as run number 79 which commenced during winter conditions, 4 pm 23rd June 2012.

Figure 14.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). The initial shoreline accumulation occurred on day 6 of the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 14.11 and Figure 14.12, respectively.

Figure 14.13 presents the fates and weathering graph for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 78,400 m^3 (~56%) was lost to the atmosphere through evaporation. Approximately, 59,000 m^3 (~42%) of the released volume decayed, while approximately 1,800 m^3 (~1%) was predicted to remain within the water column and approximately 194 m^3 (<1%) remained on shorelines.

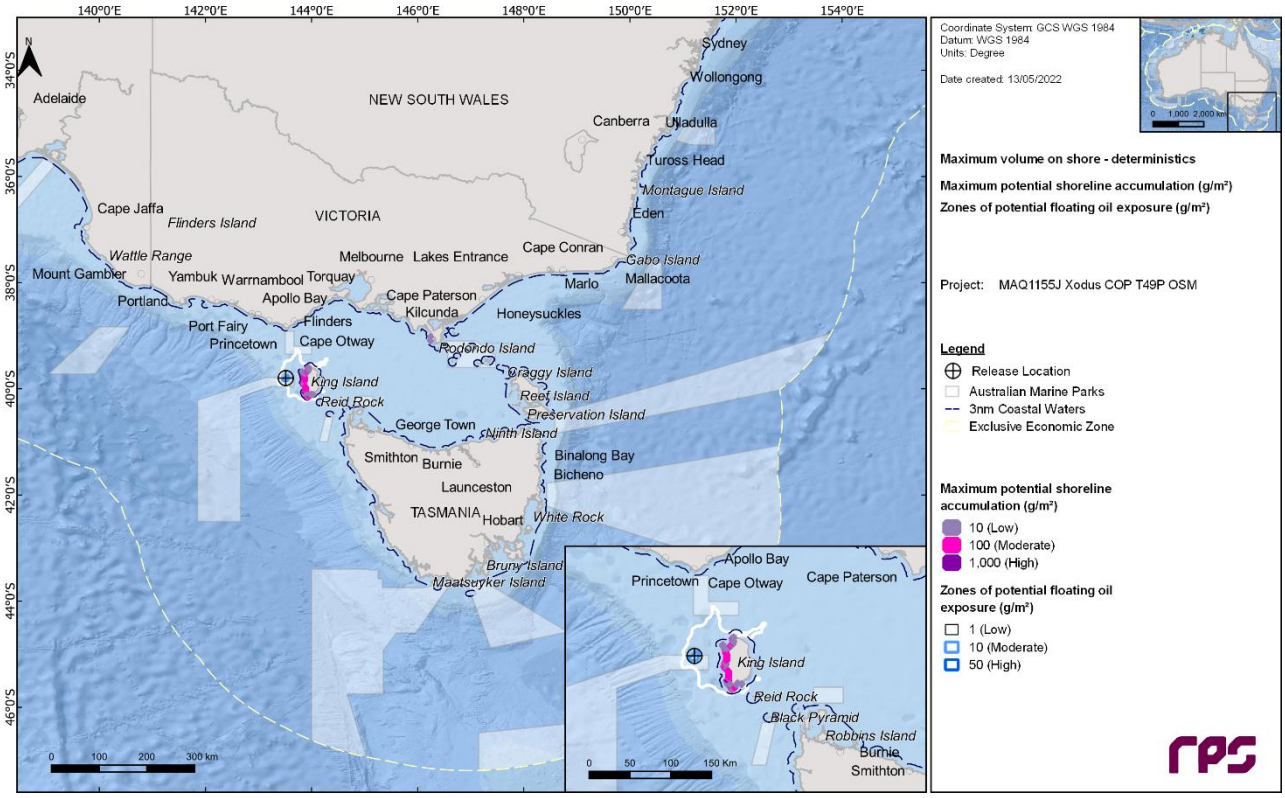


Figure 14.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

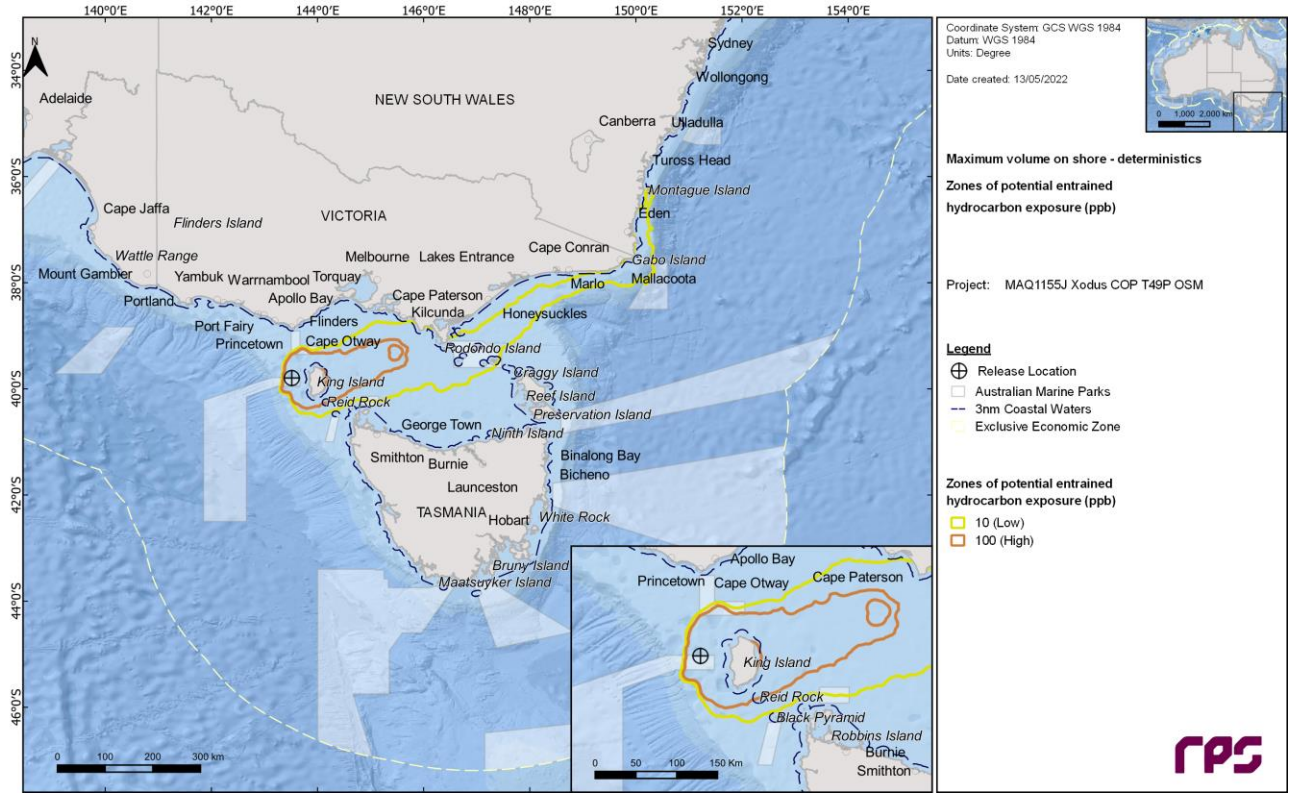


Figure 14.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

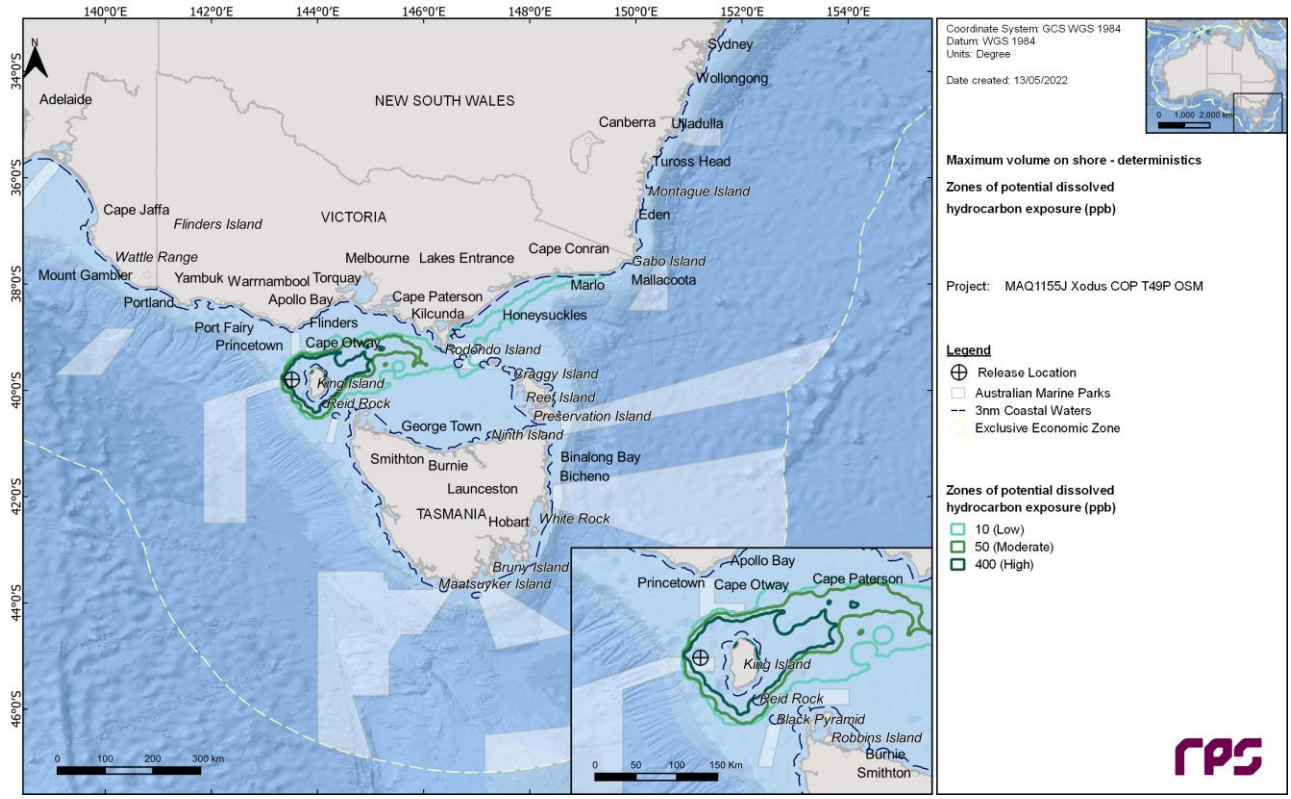


Figure 14.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

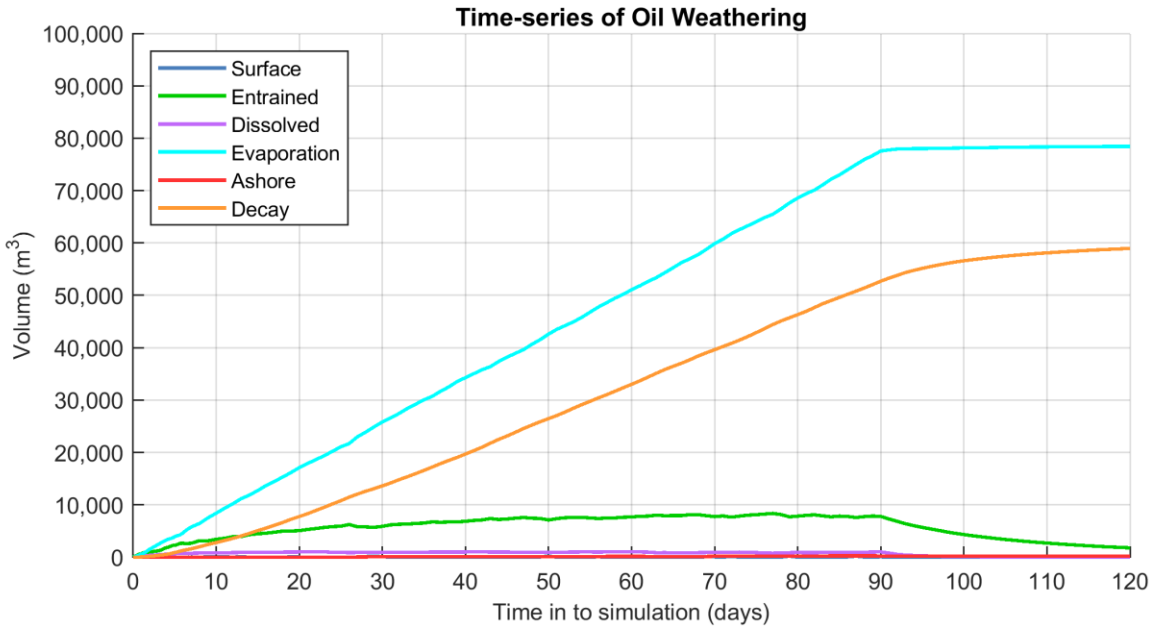


Figure 14.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

14.3.2 Minimum time to Shoreline Accumulation

The simulation that resulted in the minimum time to hydrocarbons ashore of 3.21 days was identified as run number 42 which commenced during winter conditions, 1 pm 8th September 2014.

Figure 14.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days).

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 14.15 and Figure 14.16, respectively.

Figure 14.17 presents the fates and weathering graph for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 77,200 m^3 (~55%) was lost to the atmosphere through evaporation. Approximately, 60,150 m^3 (~43%) of the released volume decayed, while approximately 2,180 m^3 (~2%) was predicted to remain within the water column and approximately 24 m^3 (<1%) remained on shorelines.

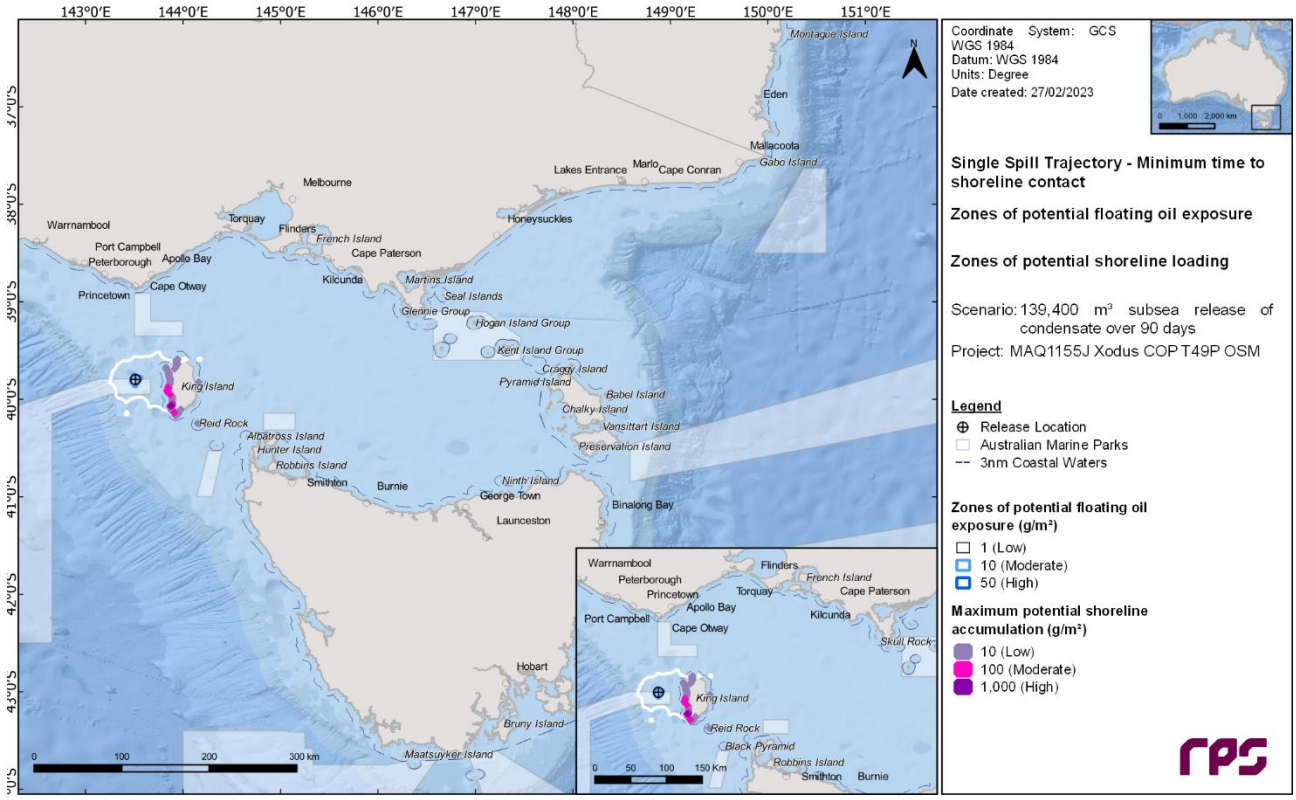


Figure 14.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 2.

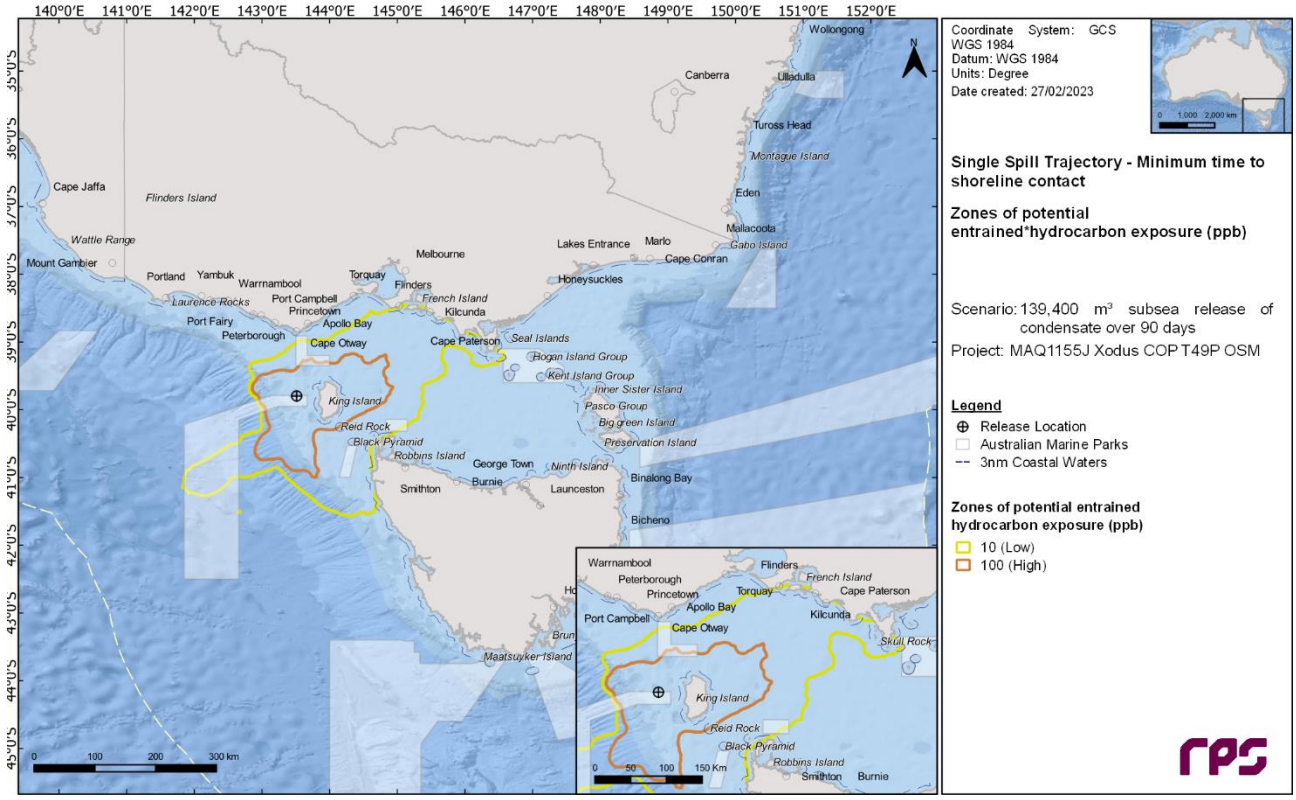


Figure 14.15 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 2.

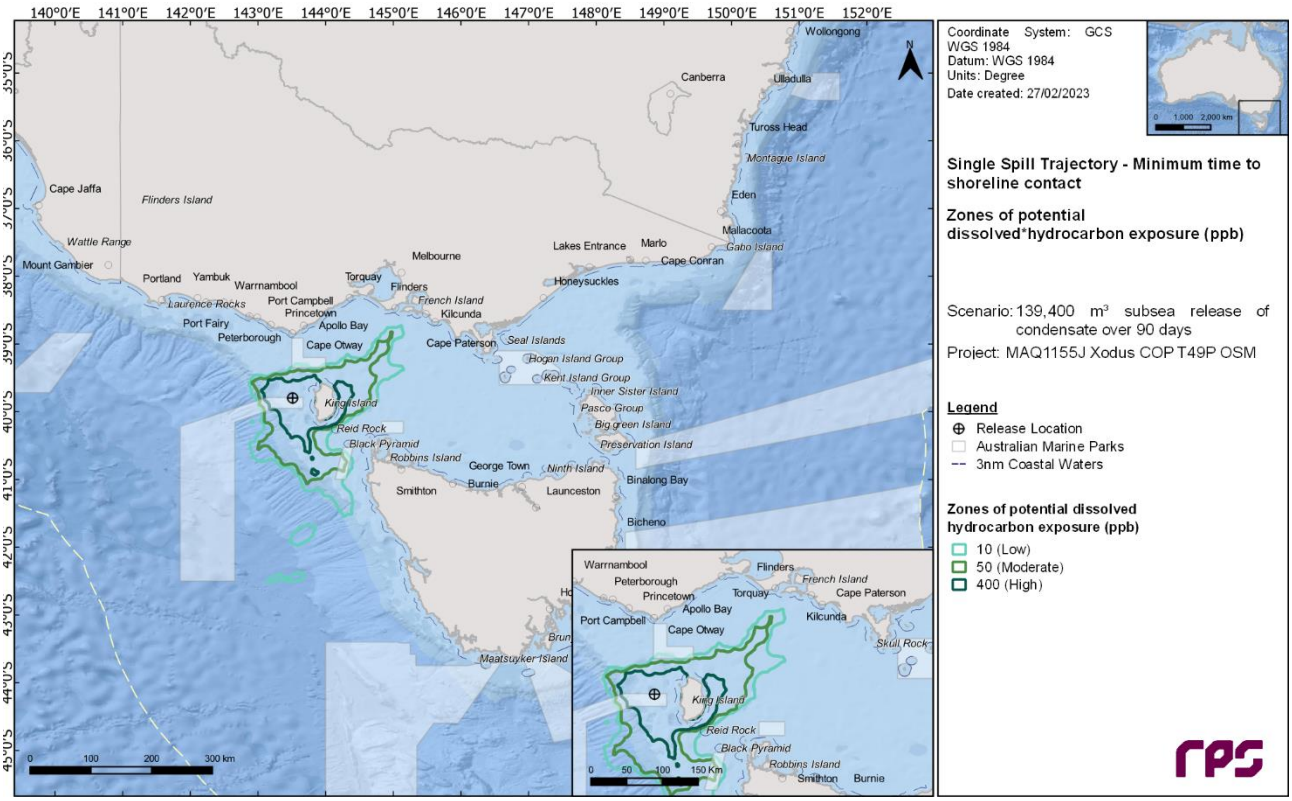


Figure 14.16 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 2.

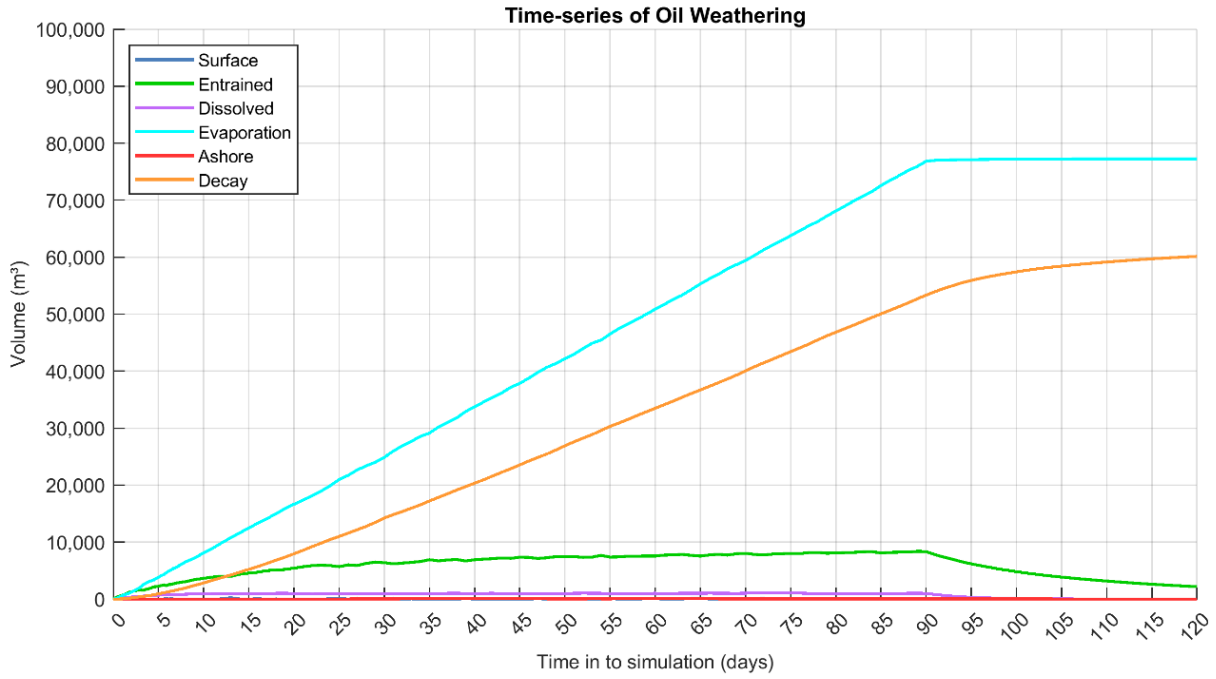


Figure 14.17 Predicted weathering and fates for the simulation that led to the minimum time to shoreline accumulation a subsea LOWC at Location 2.

15 LOCATION 3 LOWC RESULTS

This scenario examined the potential exposure following a LOWC at Location 3. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 15.1 presents the low threshold EMBA, Section 15.2 shows the seasonal (or stochastic) analysis results, while Section 15.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

15.1 EMBA

Figure 15.1 shows the EMBA for Location 3. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

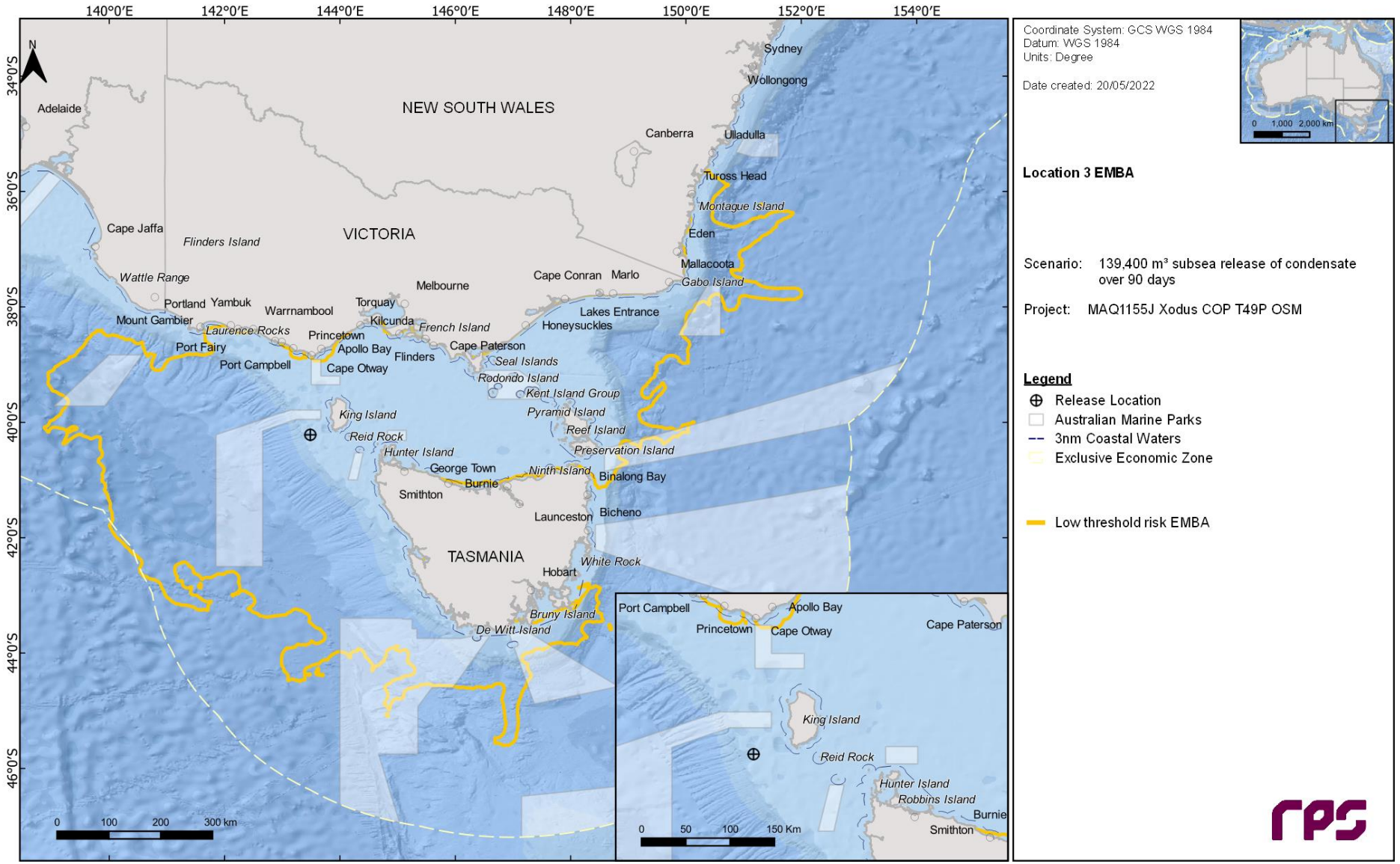


Figure 15.1 Predicted low threshold EMBA from a subsea LOWC at Location 3. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

15.2 Stochastic Analysis

15.2.1 Floating Oil Exposure

Table 15-1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 15-2 summarises the potential floating oil exposure to individual receptors for each season. The exposure by floating oil to BIAs can be found in Appendix A.

Figure 15.2 to Figure 15.3 illustrate the extent of floating oil exposure for each season.

The largest swept area of floating oil exposure at or above the low threshold during winter and summer conditions for a single simulation was 1,405 km^2 and 1,270 km^2, respectively.

Table 15-1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	143.1	15.4	0.3
	Maximum distance (km) from release location (99th percentile)	99.8	15.1	0.3
	Direction	ENE	S	SE
Winter	Maximum distance (km) from release location	196.2	14.3	1.3
	Maximum distance (km) from release location (99th percentile)	126.8	13.5	1.3
	Direction	E	SW	ENE

Table 15-2 **Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 3 for each season. Results were calculated from 100 spill simulations per season.**

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	-	-	-	-	-	-	1	-	-	61.5	-	-
	Boags	-	-	-	-	-	-	2	-	-	42.08	-	-
	Franklin	8	-	-	8.42	-	-	45	-	-	2.25	-	-
	Zeehan	48	-	-	1.54	-	-	54	-	-	1.96	-	-
IBRA	King Island	76	-	-	2.13	-	-	97	-	-	2.25	-	-
IMCRA	Boags	-	-	-	-	-	-	5	-	-	14.75	-	-
	Central Bass Strait	36	-	-	4.17	-	-	81	-	-	2.54	-	-
	Franklin	2	-	-	8.42	-	-	7	-	-	39.92	-	-
	Otway	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
KEF	West Tasmania Canyons	99	-	-	1	-	-	81	-	-	0.83	-	-
RSB	Bell Reef	4	-	-	7.25	-	-	13	-	-	2.33	-	-
Near Shore Waters	Albatross Island	-	-	-	-	-	-						
	Black Pyramid	-	-	-	-	-	-	1	-	-	73.29	-	-
	Circular Head	-	-	-	-	-	-	10	-	-	2.38	-	-
	Hunter Island	-	-	-	-	-	-	5	-	-	43.42	-	-
	King Island	68	-	-	2.13	-	-	9	-	-	15.21	-	-
	Reid Rock	23	-	-	3.21	-	-	96	-	-	2.25	-	-
State Waters	Tasmania	97	-	-	2.13	-	-	99	-	-	1.42	-	-

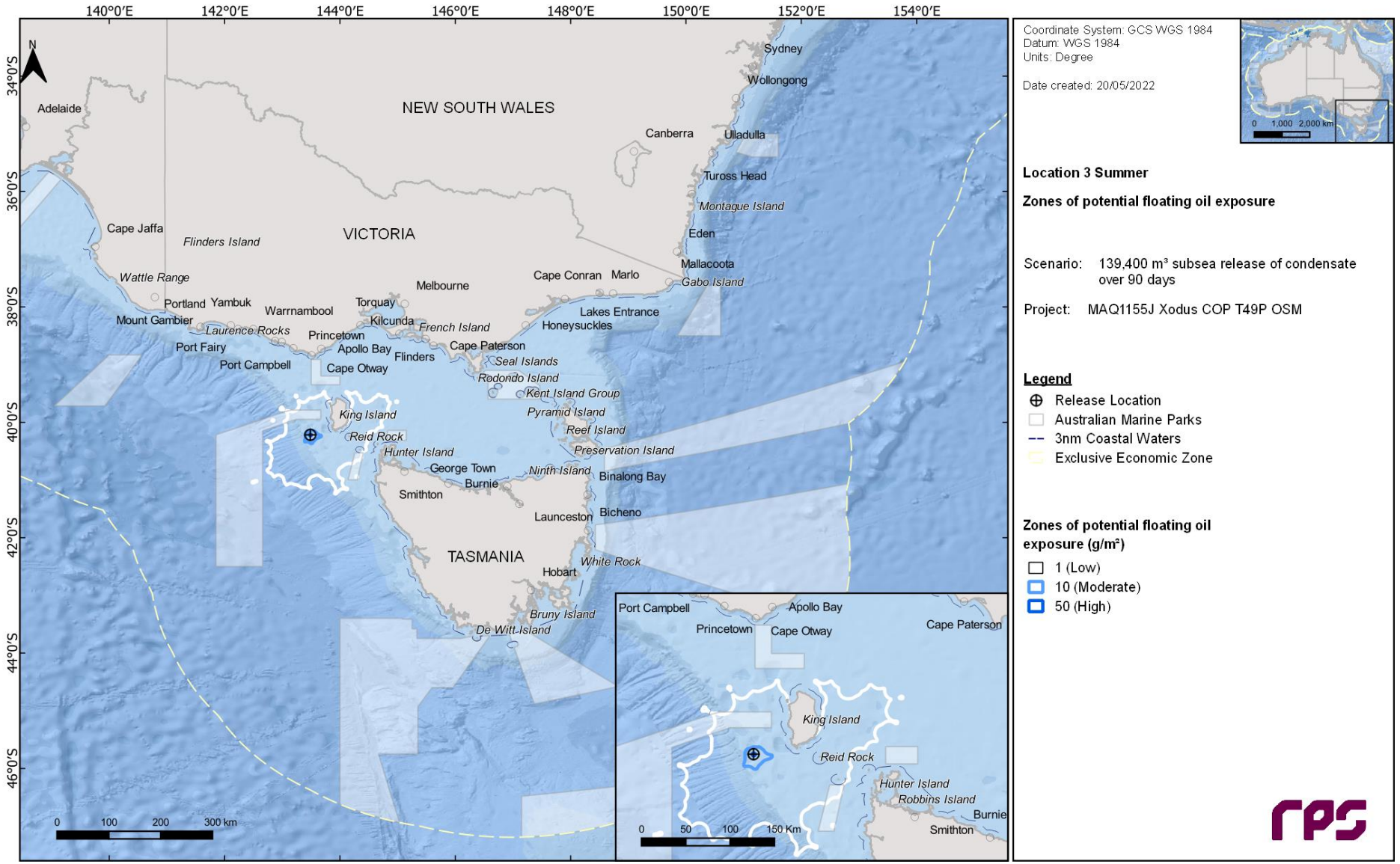


Figure 15.2 Zones of potential floating oil exposure from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

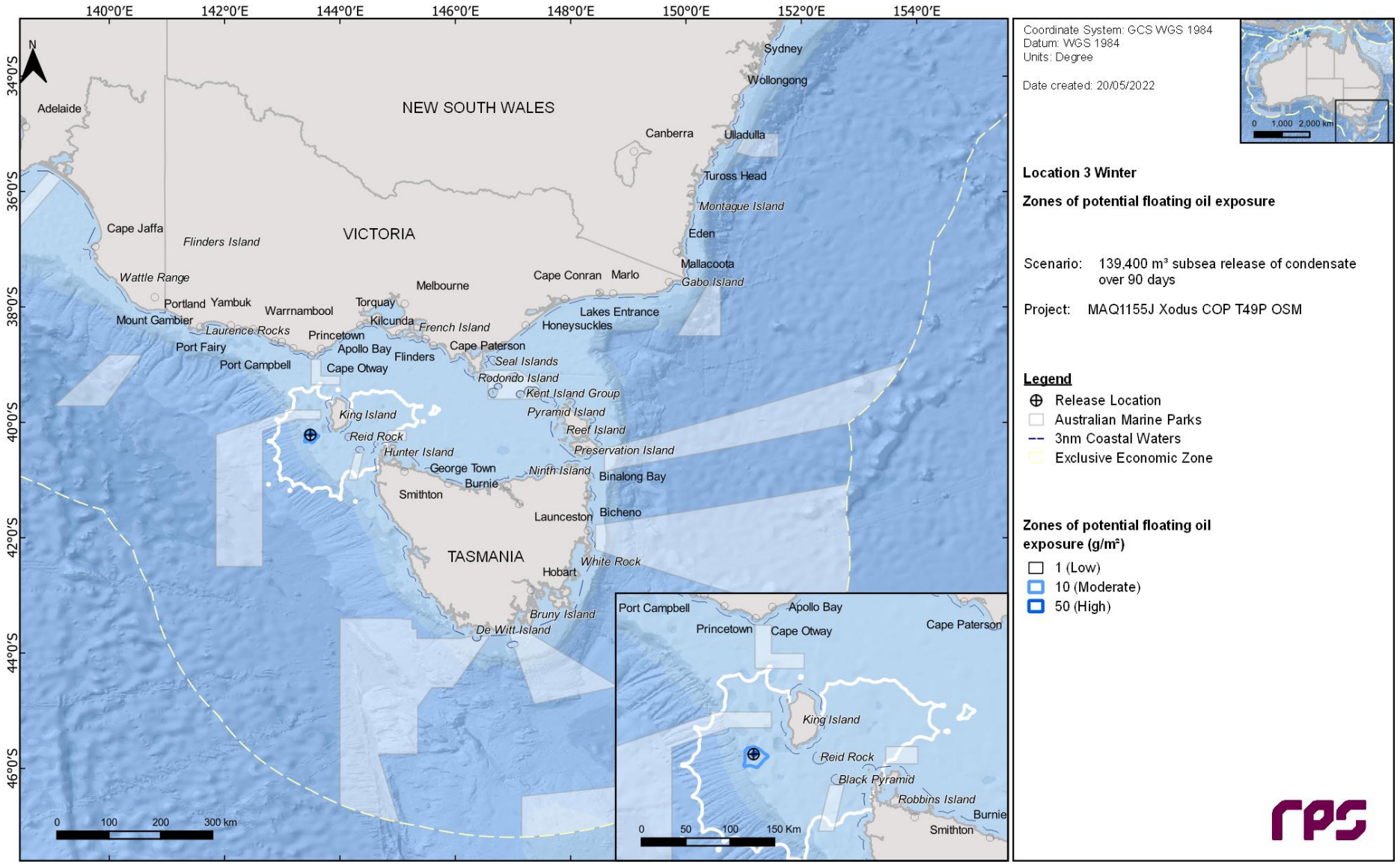


Figure 15.3 Zones of potential floating oil exposure from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.2.2 Shoreline Accumulation

Table 15-3 summarises the predicted accumulation on any shoreline during each season.

Table 15-4 to Table 15-5 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 15.4 and Figure 15.5.

Table 15-3 Summary of accumulation on any shoreline from a subsea LOWC at Location 3 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	100	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	4.58	4.00
Maximum volume of hydrocarbons ashore (m^3)	26.5	58.7
Average volume of hydrocarbons ashore (m^3)	2.7	11.1
Maximum length of the shoreline at **10 g/m^2** (km)	113	133
Average shoreline length (km) at **10 g/m^2** (km)	44.6	71.5
Maximum length of the shoreline at **100 g/m^2** (km)	16	23
Average shoreline length (km) at **100 g/m^2** (km)	4.1	7.2
Maximum length of the shoreline at **1,000 g/m^2** (km)	1	1
Average shoreline length (km) at **1,000 g/m^2** (km)	1	1

Table 15-4 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 3 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Albatross Island	1	-	-	63	-	-	2	15	< 0.1	< 0.1	1	-	-	1	-	-
Anser Island	5	-	-	61.88	-	-	3	22	< 0.1	< 0.1	1	-	-	1	-	-
Badger Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Black Pyramid	26	-	-	12.17	-	-	8	48	< 0.1	< 0.1	1	-	-	1	-	-
Cape Barren Osland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chalky Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Circular Head	64	6	-	12.17	47.17	-	3	286	0.2	2.2	10.2	1.1	-	26.8	1.9	-
Clarke Island	1	-	-	119.04	-	-	1	16	< 0.1	0.3	1.9	-	-	1.9	-	-
Craggy Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Curtis Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
De Witt Island	1	-	-	66.08	-	-	1	10	< 0.1	< 0.1	1	-	-	1	-	-
Dorset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Gippsland	2	-	-	88.63	-	-	1	18	< 0.1	< 0.1	1	-	-	1	-	-
East Kangaroo Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flinders Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glennie Group	7	-	-	47.46	-	-	2	31	< 0.1	< 0.1	1.5	-	-	2.9	-	-
Hogan Island Group	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hunter Island	51	2	-	13.38	58.71	-	4	110	< 0.1	1.4	3.4	1	-	11.5	1	-
Huon Valley	7	-	-	31.88	-	-	1	27	< 0.1	0.3	2.7	-	-	4.8	-	-
Inner Sister Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kanowna Island	1	-	-	89.25	-	-	2	10	< 0.1	< 0.1	1	-	-	1	-	-
Kent Island Group	5	-	-	63.67	-	-	1	19	< 0.1	< 0.1	1.3	-	-	1.9	-	-
King Island	98	56	2	4.58	8.17	75.54	13	1,643	2.1	25	27.3	4.2	1	80.3	15.3	1

Moncoeur Islands	1	-	-	70.63	-	-	2	13	< 0.1	< 0.1	1	-	-	1	-	-
Mount Chappell Island	1	-	-	119.25	-	-	2	10	< 0.1	0.1	1	-	-	1	-	-
Norman Island	7	-	-	47.67	-	-	4	33	< 0.1	0.3	2	-	-	2.9	-	-
Outer Sister Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prime Seal Island	1	-	-	119.46	-	-	< 1	14	< 0.1	0.2	1	-	-	1	-	-
Pyramid Island	1	-	-	65	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
Reef Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reid Rock	67	1	-	4.96	89.5	-	15	147	< 0.1	0.7	2.3	1	-	2.9	1	-
Robbins Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rodondo Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seal Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shellback Island	1	-	-	50.25	-	-	3	11	< 0.1	< 0.1	1	-	-	1	-	-
Skull Rock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Gippsland	7	-	-	47.5	-	-	2	53	< 0.1	0.8	3.7	-	-	4.8	-	-
Three Hummock Island	4	-	-	44.75	-	-	2	26	< 0.1	< 0.1	1.4	-	-	2.9	-	-
Wellington	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Coast	53	7	-	14.38	32.21	-	2	196	0.2	3	9.3	1	-	42.1	1	-
Cape Liptrap (NW)	2	-	-	77.96	-	-	2	22	< 0.1	< 0.1	1	-	-	1	-	-
Croajingolong (West)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ocean Grange	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Point Hicks	2	-	-	88.63	-	-	1	18	< 0.1	< 0.1	1	-	-	1	-	-
Wilsons Promontory (West)	7	-	-	47.5	-	-	2	53	< 0.1	0.8	3.4	-	-	4.8	-	-

Table 15-5 Summary of oil accumulation on individual shoreline sectors from a subsea LOWC at Location 3 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Albatross Island	12	-	-	13.92	-	-	3	41	< 0.1	0.1	2.1	-	-	3.8	-	-
Anser Island	5	-	-	35.42	-	-	4	24	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Badger Island	5	-	-	47.63	-	-	2	18	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Black Pyramid	36	-	-	5.54	-	-	10	46	< 0.1	< 0.1	1	-	-	1	-	-
Cape Barren Osland	3	-	-	44.96	-	-	1	24	< 0.1	< 0.1	3.8	-	-	5.7	-	-
Chalky Island	1	-	-	44.33	-	-	2	10	< 0.1	< 0.1	1	-	-	1	-	-
Circular Head	75	8	-	9.88	26.5	-	4	253	0.4	5.7	13.9	1.6	-	38.2	1.9	-
Clarke Island	9	-	-	44.13	-	-	2	18	< 0.1	0.3	1.3	-	-	2.9	-	-
Craggy Island	4	-	-	46.92	-	-	2	18	< 0.1	< 0.1	1.4	-	-	1.9	-	-
Curtis Island	8	-	-	23.46	-	-	2	14	< 0.1	< 0.1	1.1	-	-	1.9	-	-
De Witt Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dorset	2	-	-	76.92	-	-	< 1	25	< 0.1	0.2	1.4	-	-	1.9	-	-
East Gippsland	8	-	-	27.17	-	-	1	38	< 0.1	< 0.1	1.4	-	-	1.9	-	-
East Kangaroo Island	1	-	-	81.67	-	-	2	12	< 0.1	< 0.1	1	-	-	1	-	-
Flinders Island	11	-	-	33.29	-	-	1	24	< 0.1	< 0.1	3.3	-	-	12.4	-	-
Glennie Group	12	-	-	25.25	-	-	3	30	< 0.1	0.2	2.1	-	-	4.8	-	-
Hogan Island Group	1	-	-	65.92	-	-	2	10	< 0.1	< 0.1	1	-	-	1	-	-
Hunter Island	62	5	-	6.63	15.88	-	6	132	0.1	2.6	6.8	1.3	-	22.9	1.9	-
Huon Valley	15	-	-	21.67	-	-	2	52	< 0.1	0.9	3.8	-	-	7.6	-	-
Inner Sister Island	1	-	-	47.92	-	-	1	11	< 0.1	< 0.1	1	-	-	1	-	-
Kanowna Island	10	-	-	29.33	-	-	3	26	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Kent Island Group	32	-	-	19.88	-	-	3	44	< 0.1	0.2	2.4	-	-	5.7	-	-
King Island	100	83	11	4	6.13	35.54	24	1,600	10.1	58.4	36.9	7	1	89.9	21	1

Moncoeur Islands	1	-	-	68.08	-	-	2	18	< 0.1	< 0.1	1	-	-	1	-	-
Mount Chappell Island	6	-	-	44.13	-	-	3	22	< 0.1	< 0.1	1.1	-	-	1.9	-	-
Norman Island	10	6	-	25.5	42.46	-	11	136	< 0.1	2.2	2.7	1	-	3.8	1	-
Outer Sister Island	2	-	-	44.5	-	-	2	19	< 0.1	< 0.1	1	-	-	1	-	-
Prime Seal Island	12	-	-	36.25	-	-	2	28	< 0.1	< 0.1	1.3	-	-	3.8	-	-
Pyramid Island	17	-	-	18.17	-	-	5	55	< 0.1	0.2	1.4	-	-	1.9	-	-
Reef Island	2	-	-	45.38	-	-	2	14	< 0.1	< 0.1	1	-	-	1	-	-
Reid Rock	78	3	-	5.46	29.5	-	17	122	< 0.1	0.2	2.1	1	-	2.9	1	-
Robbins Island	3	-	-	25.67	-	-	2	12	< 0.1	< 0.1	1	-	-	1	-	-
Rodondo Island	6	-	-	22.67	-	-	4	20	< 0.1	< 0.1	1	-	-	1	-	-
Seal Islands	3	-	-	51.04	-	-	2	11	< 0.1	< 0.1	1	-	-	1	-	-
Shellback Island	7	-	-	25.58	-	-	9	40	< 0.1	0.2	1	-	-	1	-	-
Skull Rock	10	-	-	29.33	-	-	4	26	< 0.1	< 0.1	1.1	-	-	1.9	-	-
South Gippsland	10	-	-	25.71	-	-	3	81	< 0.1	2.2	8.6	-	-	14.3	-	-
Three Hummock Island	19	-	-	15.67	-	-	2	32	< 0.1	< 0.1	1.5	-	-	2.9	-	-
Wellington	1	-	-	34	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
West Coast	68	10	-	14.04	27.08	-	3	140	0.3	2.7	14.9	1.3	-	35.4	2.9	-
Cape Liptrap (NW)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croajingolong (West)	2	-	-	36.92	-	-	2	17	< 0.1	< 0.1	1	-	-	1	-	-
Ocean Grange	1	-	-	34	-	-	1	14	< 0.1	< 0.1	1	-	-	1	-	-
Point Hicks	8	-	-	27.17	-	-	2	38	< 0.1	< 0.1	1.2	-	-	1.9	-	-
Wilsons Promontory (West)	10	-	-	25.71	-	-	3	81	< 0.1	2.2	8.6	-	-	14.3	-	-

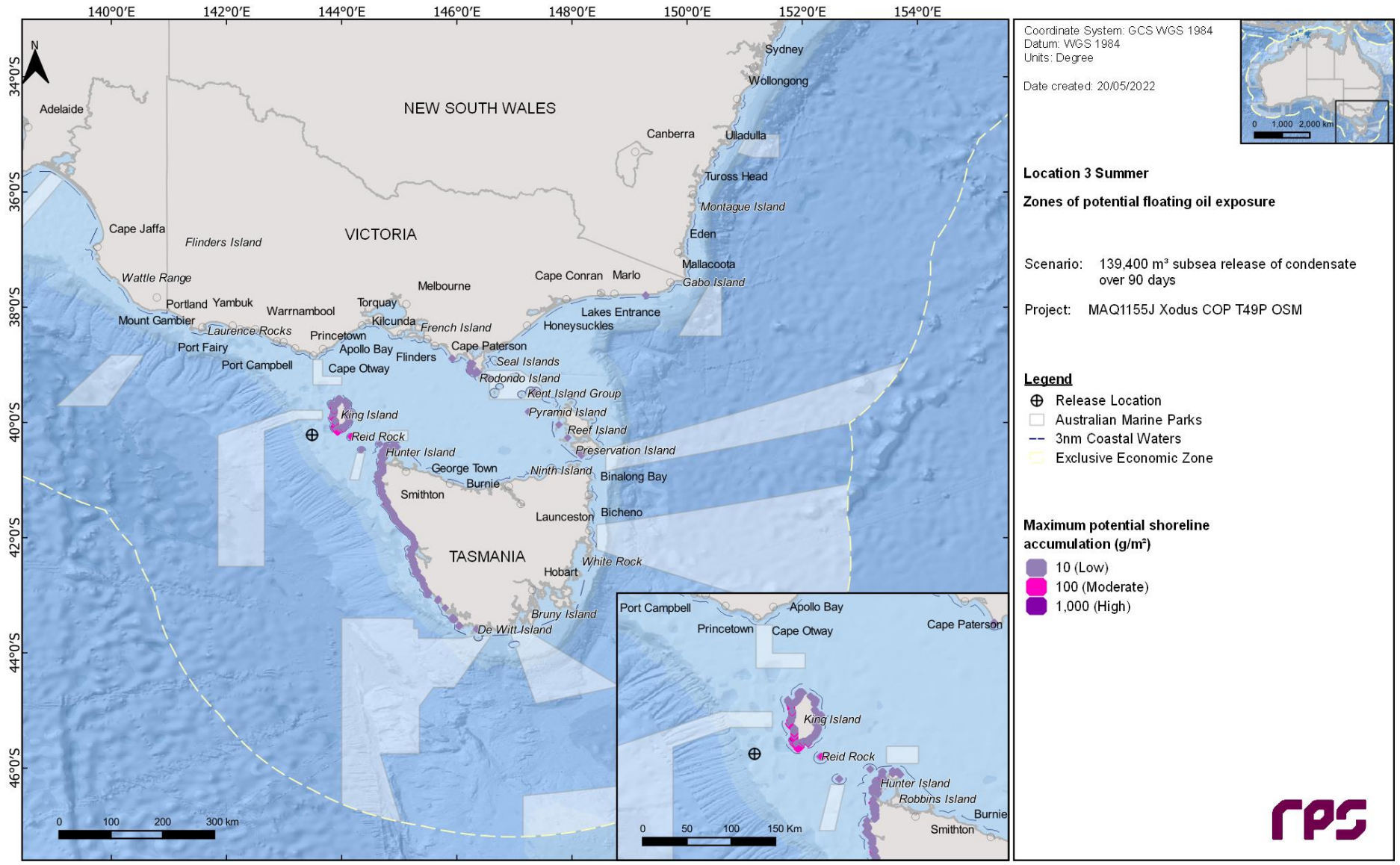


Figure 15.4 Maximum potential shoreline loading from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

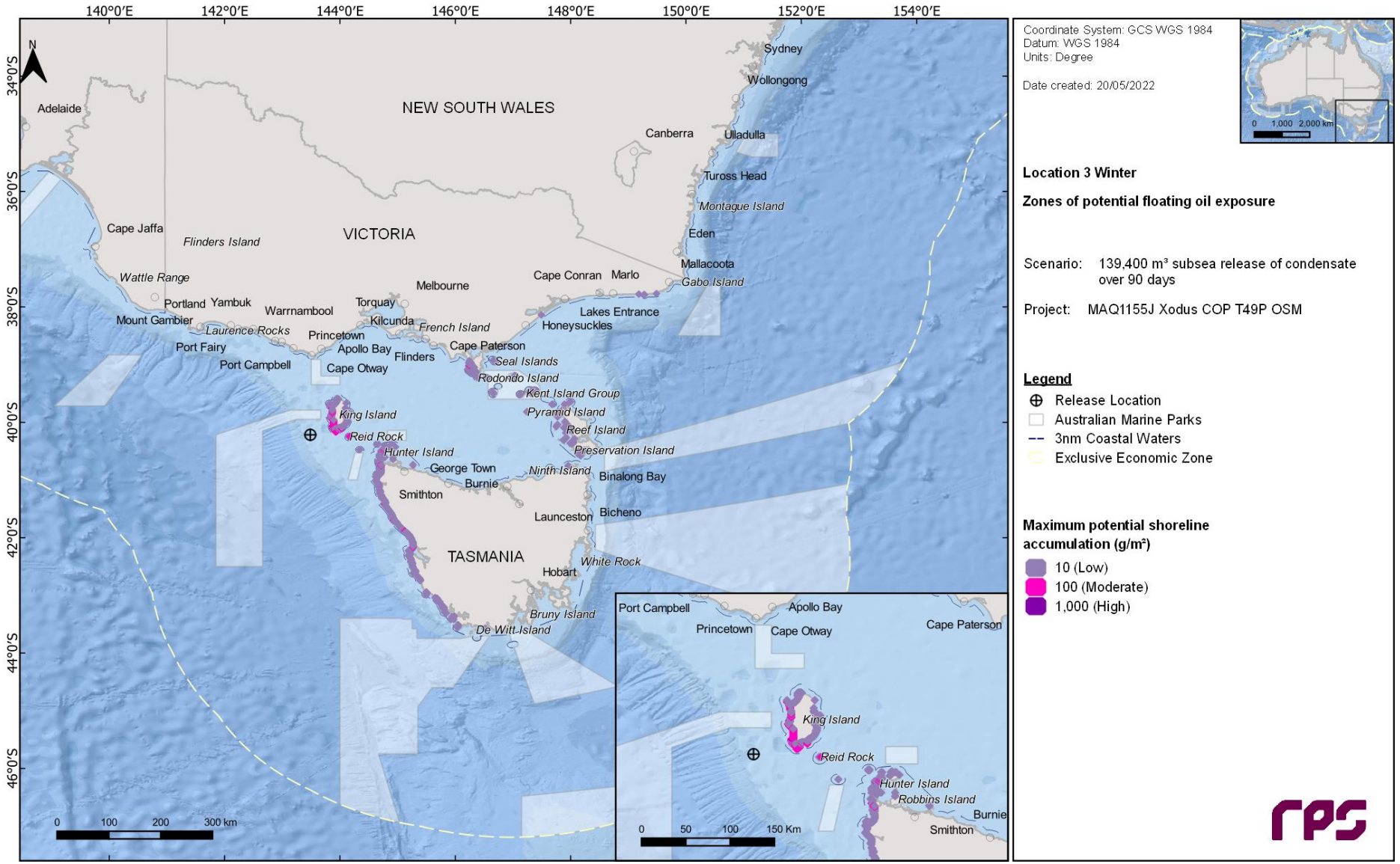


Figure 15.5 Maximum potential shoreline loading from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.2.3 In-water exposure

15.2.3.1 Dissolved Hydrocarbons

Table 15-6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – -10 m depth layer.

Table 15-7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m depth layer for each threshold and season.

Figure 15.6 and Figure 15.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers. Figures showing the extent of dissolved hydrocarbon exposure in the 10-20 m, 20 – 30 m and 30 – 50 m depth layers for each season are presented in Appendix A.

Table 15-6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10m) from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	642	492	308
	Maximum distance (km) from release location (99th percentile)	455	371	166
	Direction	ENE	SE	ENE
Winter	Maximum distance (km) from release location	773	456	257
	Maximum distance (km) from release location (99th percentile)	502	334	169
	Direction	ENE	SSE	SSE

Table 15-7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	512	16	9	1	394	30	10	-
	Beagle	533	9	5	1	322	35	7	-
	Boags	661	61	27	1	1,283	87	57	5
	Franklin	1,515	99	83	9	1,827	100	96	18
	Huon	30	1	-	-	14	1	-	-
	Nelson	12	1	-	-	18	1	-	-
	Tasman Fracture	73	4	1	-	54	3	1	-
	Zeehan	3,255	69	56	20	3,213	72	59	26
CA	Montagu Beach	-	-	-	-	32	2	-	-
	Unnamed (Duck Bay)	-	-	-	-	28	2	-	-
IBRA	Bateman	-	-	-	-	19	1	-	-
	East Gippsland Lowlands	12	1	-	-	23	1	-	-
	Flinders	188	7	4	-	225	26	8	-
	Gippsland Plain	54	3	1	-	22	3	-	-
	King Island	2,466	100	97	34	2,364	100	100	50
	South East Coastal Ranges	-	-	-	-	19	1	-	-
	Strzelecki Ranges	35	3	-	-	15	2	-	-
	Tasmanian South East	12	1	-	-	7	-	-	-
	Tasmanian Southern Ranges	25	1	-	-	16	2	-	-
	Tasmanian West	225	37	10	-	173	31	4	-
	Wilsons Promontory	25	3	-	-	49	14	-	-
IMCRA	Batemans Shelf	-	-	-	-	41	2	-	-
	Boags	572	68	25	1	1,150	87	49	3
	Bruny	23	1	-	-	-	-	-	-
	Central Bass Strait	2,322	97	83	9	2,497	100	100	16
	Central Victoria	168	5	3	-	156	13	2	-
	Davey	127	10	2	-	84	10	2	-
	Flinders	533	10	5	1	331	37	8	-
	Franklin	1,597	99	83	9	1,140	88	71	6
	Freycinet	14	1	-	-	-	-	-	-
	Otway	5,914	100	100	100	8,039	100	100	100
	Twofold Shelf	389	8	4	-	225	17	3	-

	Victorian Embayments	29	1	-	-	22	1	-	-
KEF	Seamounts South and east of Tasmania	-	-	-	-	22	1	-	-
	Shelf rocky reefs	-	-	-	-	11	1	-	-
	Upwelling East of Eden	89	3	1	-	42	5	-	-
	West Tasmania Canyons	6,534	100	100	96	3,041	95	92	70
MNP	Bunurong	22	2	-	-	10	1	-	-
	Cape Howe	-	-	-	-	23	1	-	-
	Ninety Mile Beach	-	-	-	-	12	1	-	-
	Wilsons Promontory	24	2	-	-	55	10	1	-
MP	Batemans	-	-	-	-	23	1	-	-
NP	Kent Group	233	6	2	-	93	13	1	-
NPS4	Nooramunga Marine and Coastal Park	46	1	-	-	22	1	-	-
	Wilsons Promontory Marine Park	21	2	-	-	15	1	-	-
	Wilsons Promontory Marine Reserve	12	2	-	-	15	2	-	-
Ramsar	Corner Inlet	46	1	-	-	22	1	-	-
	Lavinia	210	48	13	-	366	74	20	-
	Western Port	-	-	-	-	12	1	-	-
RSB	Bell Reef	1,258	100	98	23	1,985	100	100	46
	Brown Rocks	166	29	6	-	163	36	7	-
	Cody Bank	50	4	1	-	36	6	-	-
	Cutter Rock	28	7	-	-	87	12	2	-
	Endeavour Reef	13	1	-	-	14	1	-	-
	Wakitipu Rock	26	1	-	-	14	2	-	-
	Warrego Rock	-	-	-	-	19	1	-	-
	Wright Rock	26	1	-	-	13	1	-	-
Near Shore Waters	Albatross Island	272	52	15	-	863	69	31	2
	Anser Island	12	1	-	-	25	5	-	-
	Bass Coast	-	-	-	-	10	1	-	-
	Bega Valley	12	1	-	-	19	1	-	-
	Black Pyramid	820	95	71	4	1,461	100	92	14
	Bruny Island	12	1	-	-	-	-	-	-
	Circular Head	382	44	13	-	406	43	12	1
	Craggy Island	-	-	-	-	33	2	-	-
	Curtis Island	129	6	4	-	214	26	8	-
	De Witt Island	12	2	-	-	16	4	-	-
	East Gippsland	11	1	-	-	15	1	-	-
	Eurobodalla	-	-	-	-	19	1	-	-

	Flinders Island	-	-	-	-	14	1	-	-
	Gabo Island	-	-	-	-	16	1	-	-
	Glennie Group	21	3	-	-	33	7	-	-
	Hogan Island Group	151	7	2	-	225	12	3	-
	Hunter Island	310	29	9	-	461	48	14	1
	Huon Valley	42	7	-	-	24	4	-	-
	Kanowna Island	10	1	-	-	22	9	-	-
	Kent Island Group	188	6	2	-	93	17	1	-
	King Island	2,466	100	97	34	2,364	100	100	49
	Maatsuyker Island	20	4	-	-	25	2	-	-
	Moncoeur Islands	25	3	-	-	33	9	-	-
	Montague Island	-	-	-	-	19	1	-	-
	Mornington Peninsula	13	1	-	-	0	0	-	-
	Norman Island	14	3	-	-	12	1	-	-
	Phillip Island	11	1	-	-	-	-	-	-
	Pyramid Island	28	1	-	-	22	7	-	-
	Reid Rock	2,263	100	95	26	2,128	100	100	50
	Robbins Island	-	-	-	-	133	3	1	-
	Rodondo Island	16	3	-	-	49	14	-	-
	Round Top Island	12	1	-	-	14	1	-	-
	Seal Islands	-	-	-	-	29	3	-	-
	Shellback Island	21	2	-	-	13	1	-	-
	Skull Rock	12	1	-	-	41	8	-	-
	South Gippsland	54	3	1	-	26	3	-	-
	Three Hummock Island	286	16	5	-	182	31	8	-
	Waratah-Wynyard	-	-	-	-	21	1	-	-
	Wellington	46	1	-	-	22	1	-	-
	West Coast	222	32	5	-	114	31	3	-
State Waters	New South Wales	12	1	-	-	23	2	-	-
	Tasmania	2,466	100	99	56	3,117	100	100	77
	Victoria	74	5	1	-	99	18	2	-

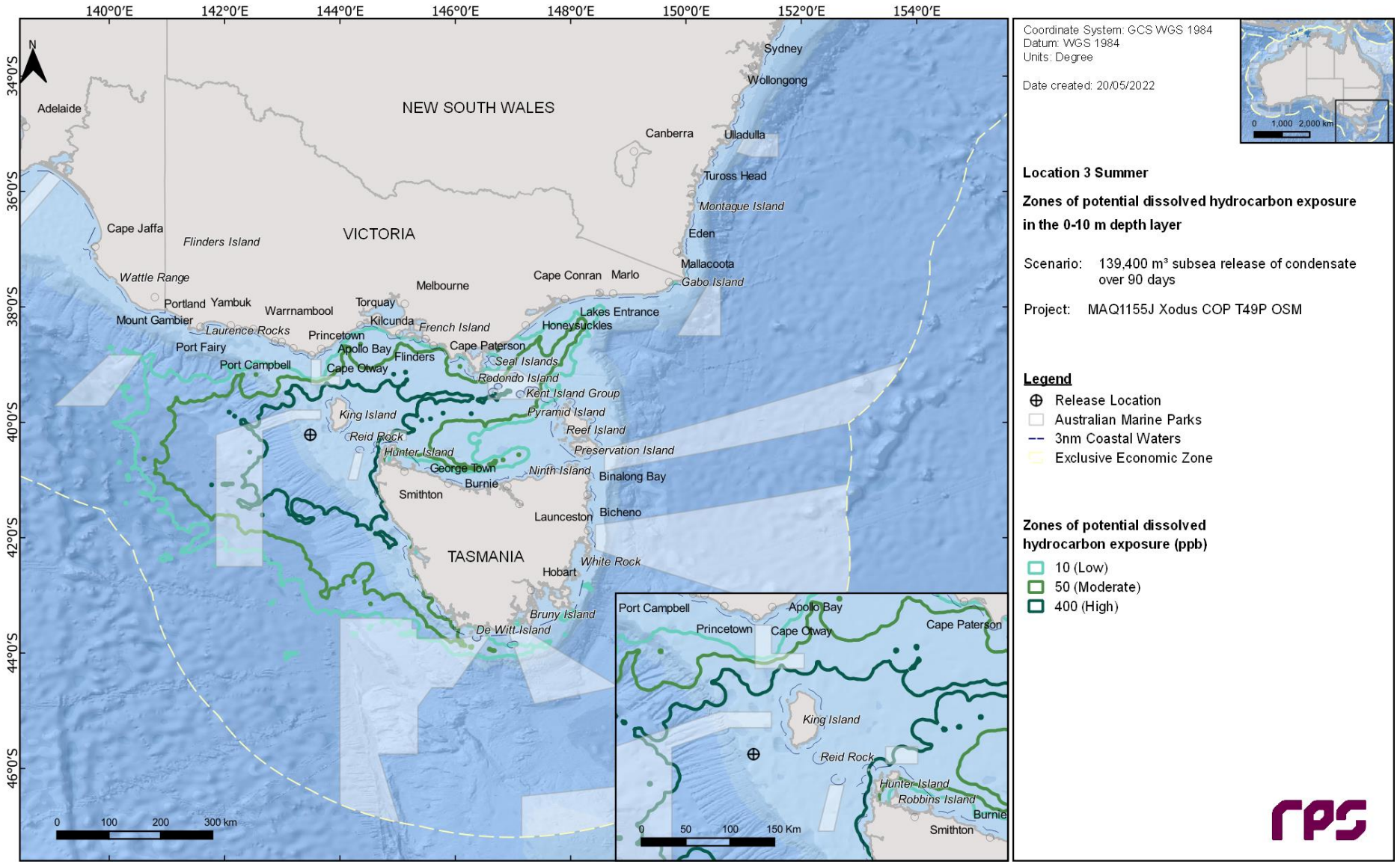


Figure 15.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

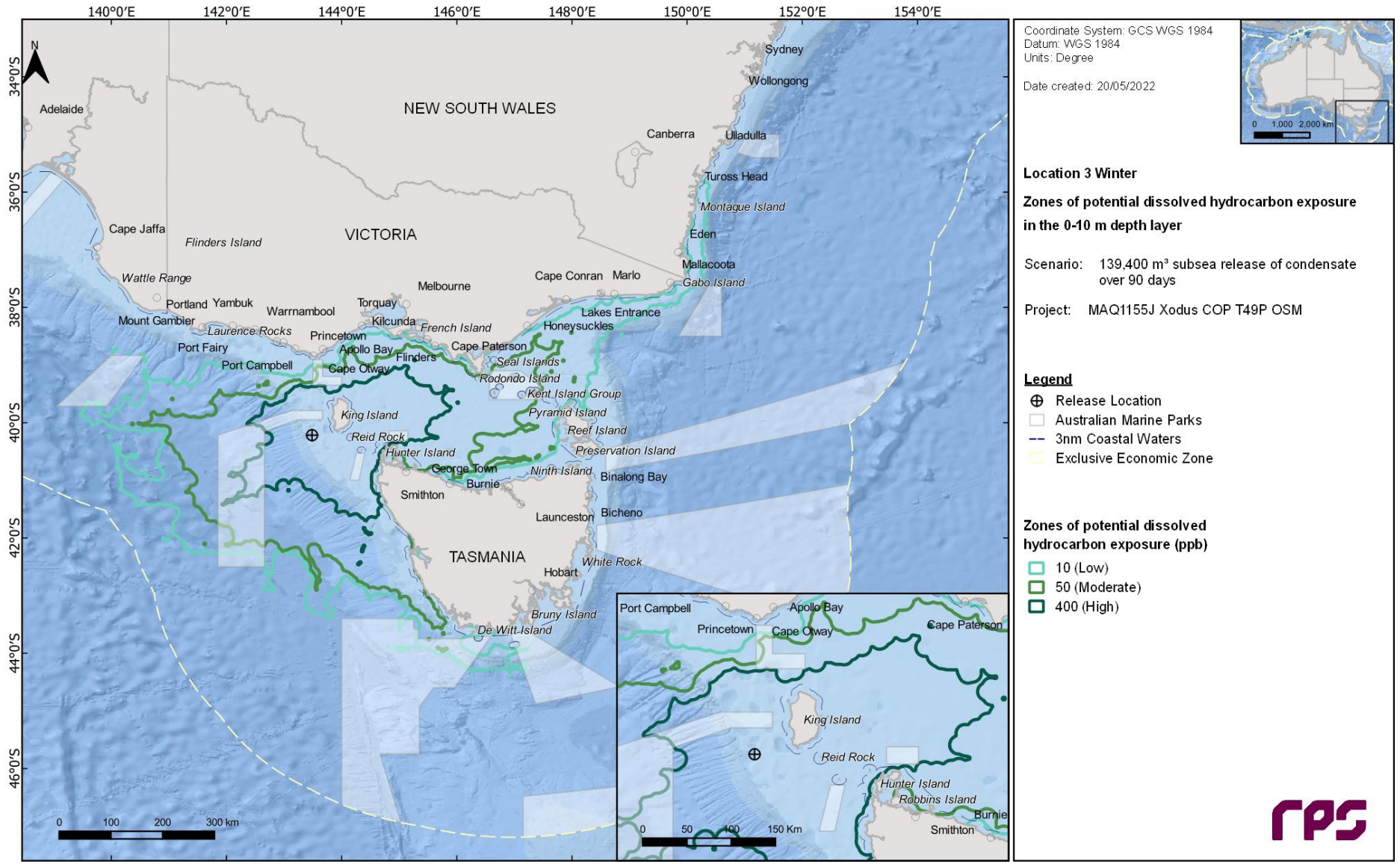


Figure 15.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.2.3.2 Entrained Hydrocarbons

Table 15-8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 15-9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layer, for each season.

Figure 15.8 and Figure 15.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer. Extent of the entrained hydrocarbon exposure for each season in the 10 -20 m and 20 – 30 m depth layers is presented in Appendix A.

Table 15-8 Maximum distance and direction by entrained hydrocarbon exposure (0-10m) from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	845	340
	Maximum distance (km) from release location (99^{th} percentile)	725	294
	Direction	ENE	SE
Winter	Maximum distance (km) from release location	846	430
	Maximum distance (km) from release location (99^{th} percentile)	756	265
	Direction	ENE	SE

Table 15-9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	123	56	3	347	62	11
	Beagle	85	37	-	106	90	3
	Boags	450	99	48	527	100	83
	East Gippsland	10	-	-	14	3	-
	Flinders	7	-	-	18	7	-
	Franklin	989	100	94	1,090	100	100
	Huon	27	12	-	19	16	-
	Nelson	22	3	-	23	9	-
	Tasman Fracture	47	20	-	86	21	-
	Zeehan	1,084	91	68	1,721	98	64
CA	Arthur Bay	15	1	-	16	11	-
IBRA	Bateman	9	-	-	18	5	-
	East Gippsland Lowlands	23	9	-	27	27	-
	Flinders	83	29	-	125	85	5
	Gippsland Plain	82	21	-	132	28	6
	King Island	1,313	100	99	1,650	100	100
	Otway Plain	17	1	-	12	1	-
	South East Coastal Ranges	8	-	-	11	2	-
	Strzelecki Ranges	70	21	-	68	26	-
	Tasmanian Northern Slopes	7	-	-	14	3	-
	Tasmanian South East	15	4	-	15	7	-
	Tasmanian Southern Ranges	34	12	-	38	18	-
	Tasmanian West	179	93	16	154	74	13
	Warrnambool Plain	12	2	-	14	2	-
	Wilsons Promontory	129	40	5	171	62	7
IMCRA	Batemans Shelf	17	2	-	26	16	-
	Boags	470	99	52	530	100	86
	Bruny	25	9	-	17	9	-
	Central Bass Strait	968	100	96	656	100	100
	Central Victoria	98	33	-	112	56	1
	Davey	90	46	-	120	29	7
	Flinders	129	45	5	175	90	7
	Franklin	427	100	76	458	100	69
	Freycinet	10	1	-	23	7	-
	Otway	13,383	100	100	11,498	100	100
	Twofold Shelf	83	29	-	102	77	1
	Victorian Embayments	18	4	-	23	6	-
KEF	Big Horseshoe Canyon	19	2	-	21	17	-

	Bonney Coast Upwelling	12	3	-	17	2	-
	Canyons on the eastern continental slope	11	1	-	12	2	-
	Seamounts South and east of Tasmania	9	-	-	61	9	-
	Shelf rocky reefs	10	-	-	17	5	-
	Upwelling East of Eden	42	16	-	54	43	-
	West Tasmania Canyons	2,124	100	100	1,949	99	95
MNP	Bunurong	29	16	-	36	14	-
	Cape Howe	10	1	-	21	22	-
	Ninety Mile Beach	10	-	-	21	7	-
	Point Addis	13	1	-	7	-	-
	Point Hicks	24	13	-	24	29	-
	Port Phillip Heads	15	1	-	7	-	-
	Twelve Apostles	7	-	-	10	1	-
	Wilsons Promontory	129	34	5	175	54	7
MP	Batemans	12	1	-	19	7	-
MS	Beware Reef	9	-	-	17	9	-
	Mushroom Reef	13	4	-	15	3	-
NP	Kent Group	83	30	-	91	77	-
NPS4	Bunurong Marine Park	22	9	-	24	10	-
	Corner Inlet Marine and Coastal Park	13	6	-	25	6	-
	Nooramunga Marine and Coastal Park	8	-	-	15	7	-
	Shallow Inlet Marine and Coastal Park	11	1	-	19	6	-
	Wilsons Promontory Marine Park	88	20	-	140	28	6
	Wilsons Promontory Marine Reserve	118	31	5	162	49	6
NR	Chappell Islands	27	2	-	30	26	-
Ramsar	Corner Inlet	13	6	-	25	7	-
	Gippsland Lakes	13	5	-	13	7	-
	Lavinia	160	91	8	148	95	12
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	15	1	-	5	-	-
	Western Port	13	1	-	12	1	-
RSB	Bell Reef	730	100	98	713	100	100
	Beware Reef	9	-	-	17	9	-
	Brown Rocks	123	90	8	206	88	20
	Cody Bank	39	27	-	41	30	-
	Cutter Rock	45	32	-	53	66	-
	Endeavour Reef	32	14	-	32	57	-
	New Zealand Star Bank	16	8	-	29	34	-
	Wakitipu Rock	27	15	-	34	62	-
	Warrego Rock	20	7	-	35	49	-
	Wright Rock	38	13	-	30	63	-
	Albatross Island	232	97	40	324	99	60

Near Shore Waters	Anser Island	114	32	5	131	49	6
	Babel Island	11	1	-	14	4	-
	Badger Island	27	2	-	33	26	-
	Bass Coast	27	11	-	33	11	-
	Bega Valley	-	-	-	17	17	-
	Big green Island	21	2	-	26	19	-
	Black Pyramid	343	100	88	653	100	98
	Boxen Island	19	2	-	25	21	-
	Bruny Island	15	4	-	10	1	-
	Cape Barren Osland	19	2	-	26	19	-
	Chalky Island	22	2	-	22	21	-
	Circular Head	271	94	18	315	93	30
	Clarke Island	13	1	-	20	13	-
	Colac Otway	-	-	-	12	1	-
	Corangamite	10	-	-	11	1	-
	Craggy Island	23	6	-	32	46	-
	Curtis Island	76	28	-	84	85	-
	De Witt Island	48	23	-	46	23	-
	Dorset	10	1	-	14	7	-
	East Gippsland	23	9	-	27	27	-
	East Kangaroo Island	24	2	-	27	19	-
	Eurobodalla	-	-	-	17	4	-
	Flinders Island	21	2	-	26	27	-
	French Island	10	1	-	11	1	-
	Gabo Island	-	-	-	18	20	-
	Glennie Group	129	33	5	171	50	7
	Goose Island	22	2	-	27	23	-
	Greater Geelong	17	1	-	-	-	-
	Hogan Island Group	40	20	-	102	61	1
	Hunter Island	202	91	23	357	94	35
	Huon Valley	90	45	-	86	29	-
	Inner Sister Island	18	2	-	36	30	-
	Kanowna Island	112	33	4	131	51	6
	Kent Island Group	83	29	-	125	77	5
	King Island	1,313	100	99	1,650	100	100
	Lady Julia Percy Island	-	-	-	11	1	-
	Laurence Rocks	-	-	-	10	1	-
	Maatsuyker Island	55	27	-	42	23	-
	Mewstone	29	17	-	17	15	-
	Moncoeur Islands	35	39	-	76	60	-
	Montague Island	-	-	-	18	5	-
	Mornington Peninsula	17	4	-	16	3	-
	Mount Chappell Island	27	2	-	33	25	-
	Moyne	12	2	-	14	2	-
	Ninth Island	12	1	-	15	7	-
	Norman Island	118	26	5	170	32	7
	Outer Sister Island	20	2	-	37	30	-

	Pasco Group	17	1	-	19	29	-
	Phillip Island	35	6	-	35	7	-
	Preservation Island	13	1	-	18	13	-
	Prime Seal Island	21	3	-	22	29	-
	Pyramid Island	47	25	-	63	70	-
	Reef Island	21	2	-	25	20	-
	Reid Rock	993	100	98	1,013	100	100
	Robbins Island	40	23	-	41	43	-
	Rodondo Island	59	39	-	95	62	-
	Round Top Island	33	21	-	32	22	-
	Seal Islands	29	7	-	35	34	-
	Shellback Island	81	21	-	128	29	6
	Skull Rock	100	33	-	121	52	6
	South Gippsland	119	30	5	155	47	6
	Surf Coast	14	1	-	-	-	-
	Tasman	-	-	-	13	2	-
	Three Hummock Island	161	88	5	172	89	12
	Waratah-Wynyard	7	-	-	14	3	-
	Warrnambool	-	-	-	11	1	-
	Wellington	12	3	-	23	8	-
	West Coast	179	93	16	154	71	13
	West Tamar	11	1	-	-	-	-
State Waters	New South Wales	12	1	-	23	17	-
	Tasmania	1,430	100	100	1,650	100	100
	Victoria	129	41	5	175	63	7

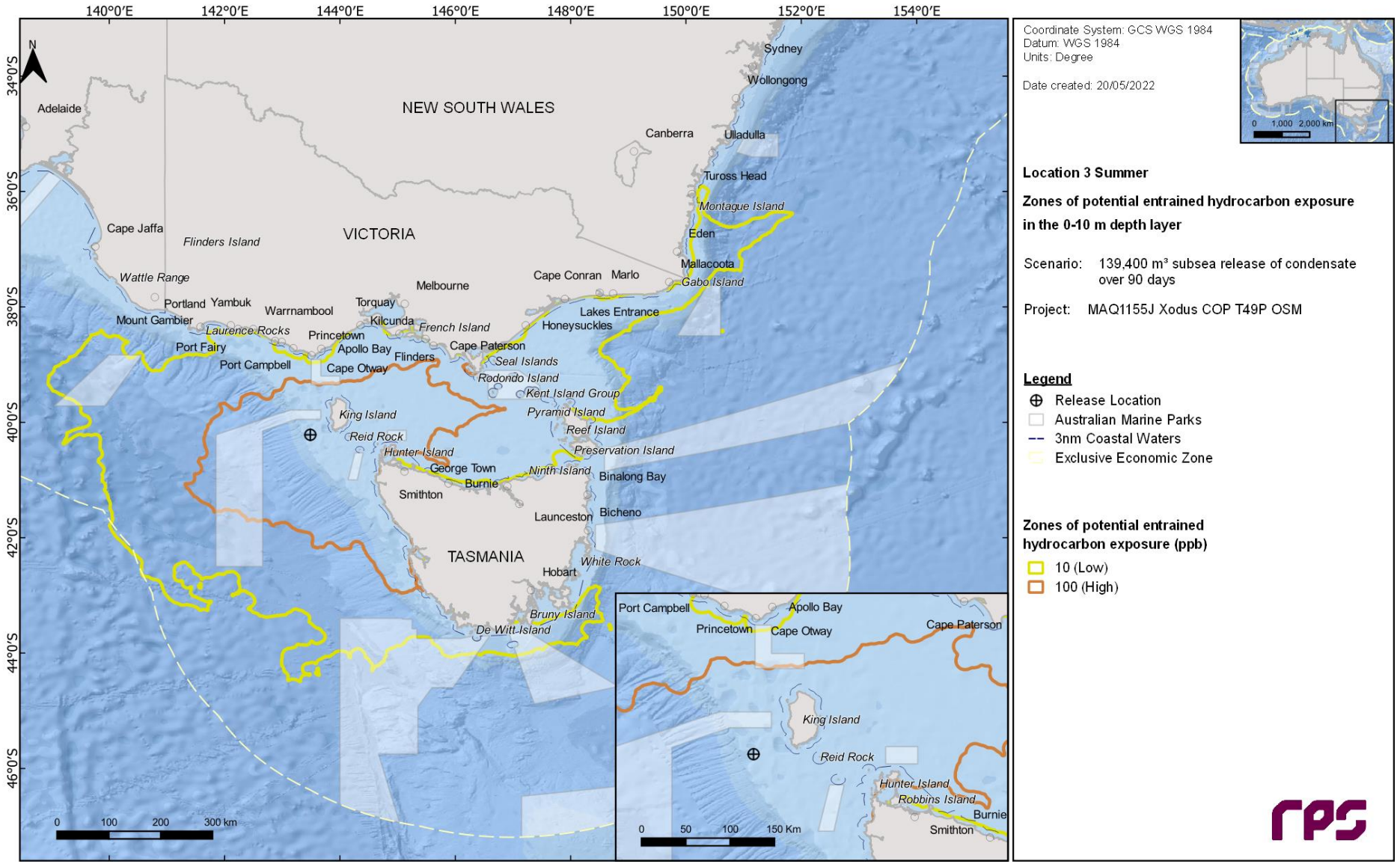


Figure 15.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

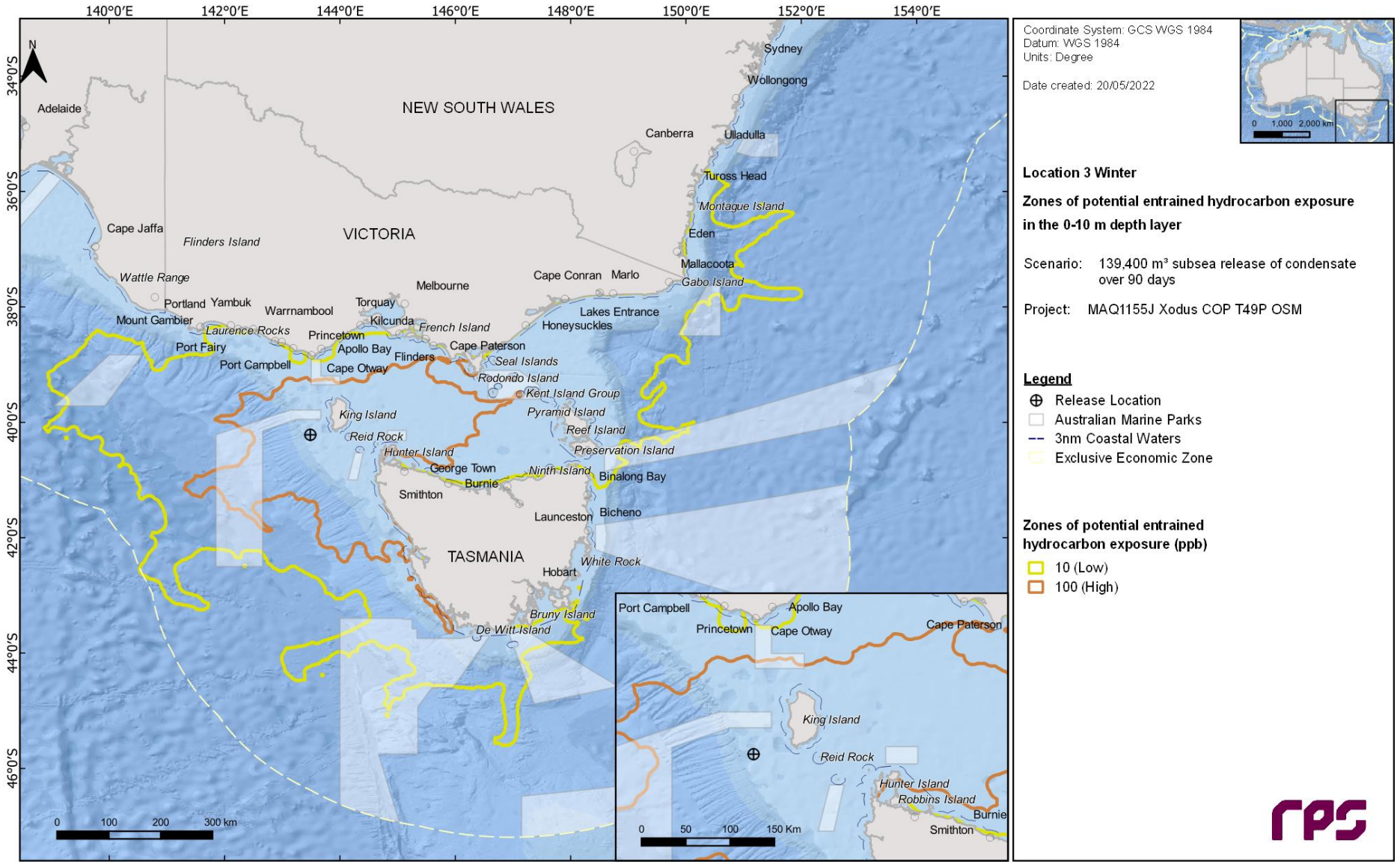


Figure 15.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.3 Deterministic Analysis

15.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore of 58.7 m^3 was identified as run number 98 which commenced during winter conditions, 1 pm 12th June 2019.

Figure 15.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 9 of the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 15.11 and Figure 15.12, respectively.

Figure 15.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 87,500 m^3 (~63%) was lost to the atmosphere through evaporation. Approximately, 50,000 m^3 (~36%) of the released volume decayed, while approximately 1,800 m^3 (~1%) was predicted to remain within the water column and approximately 55 m^3 (<0.1%) remained on shorelines.

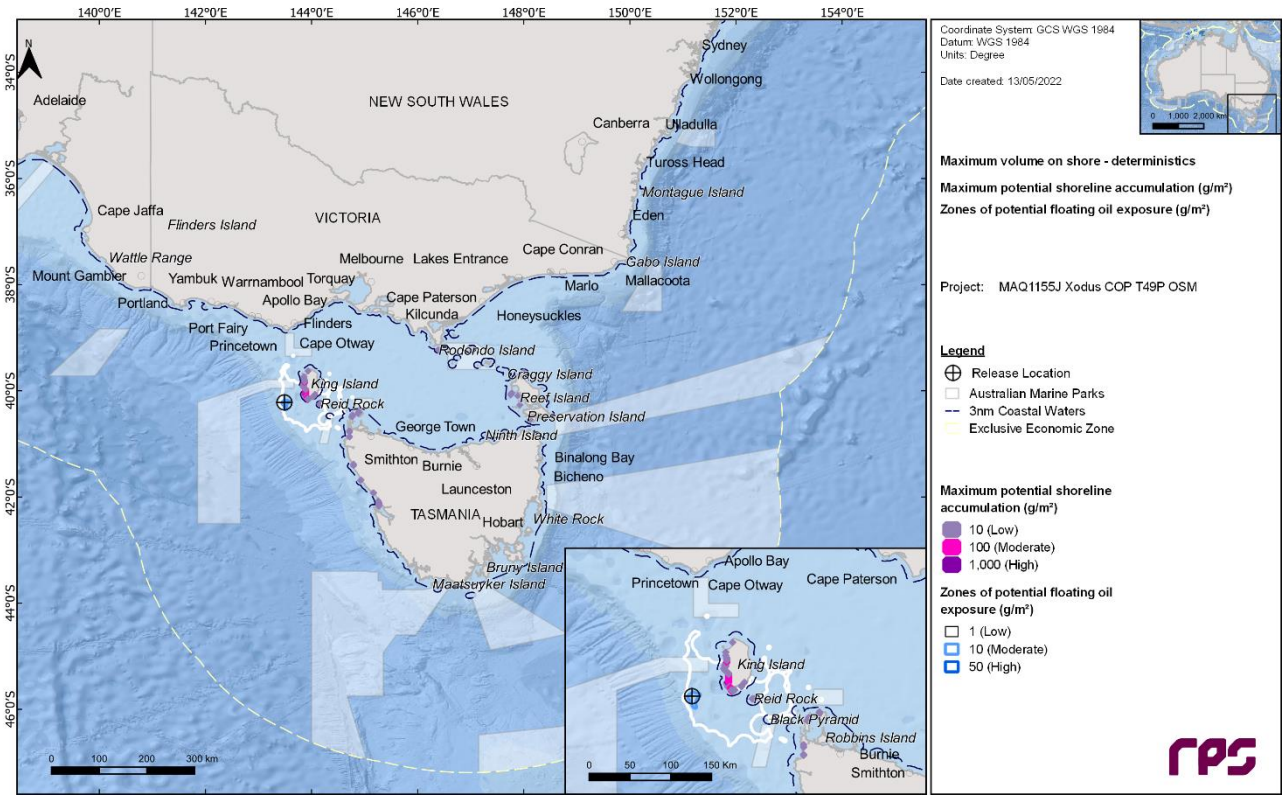


Figure 15.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

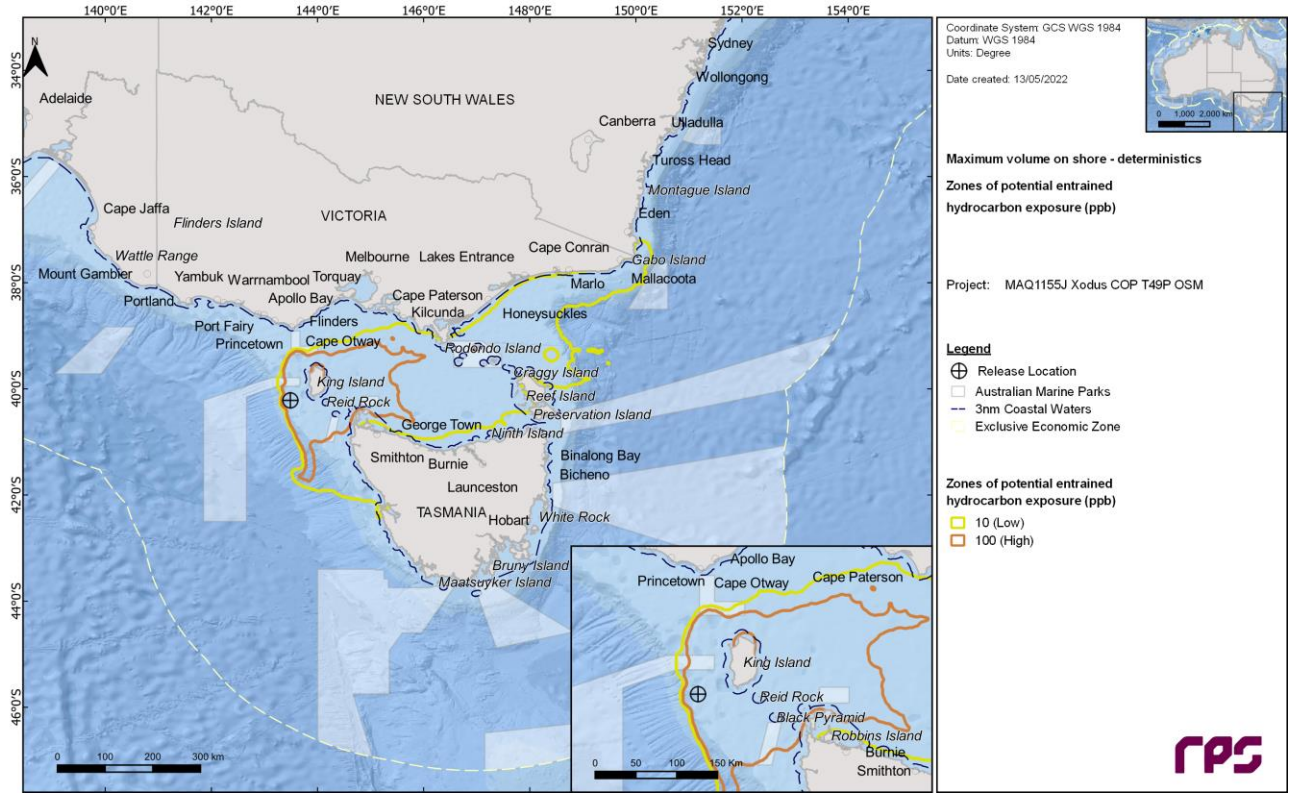


Figure 15.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

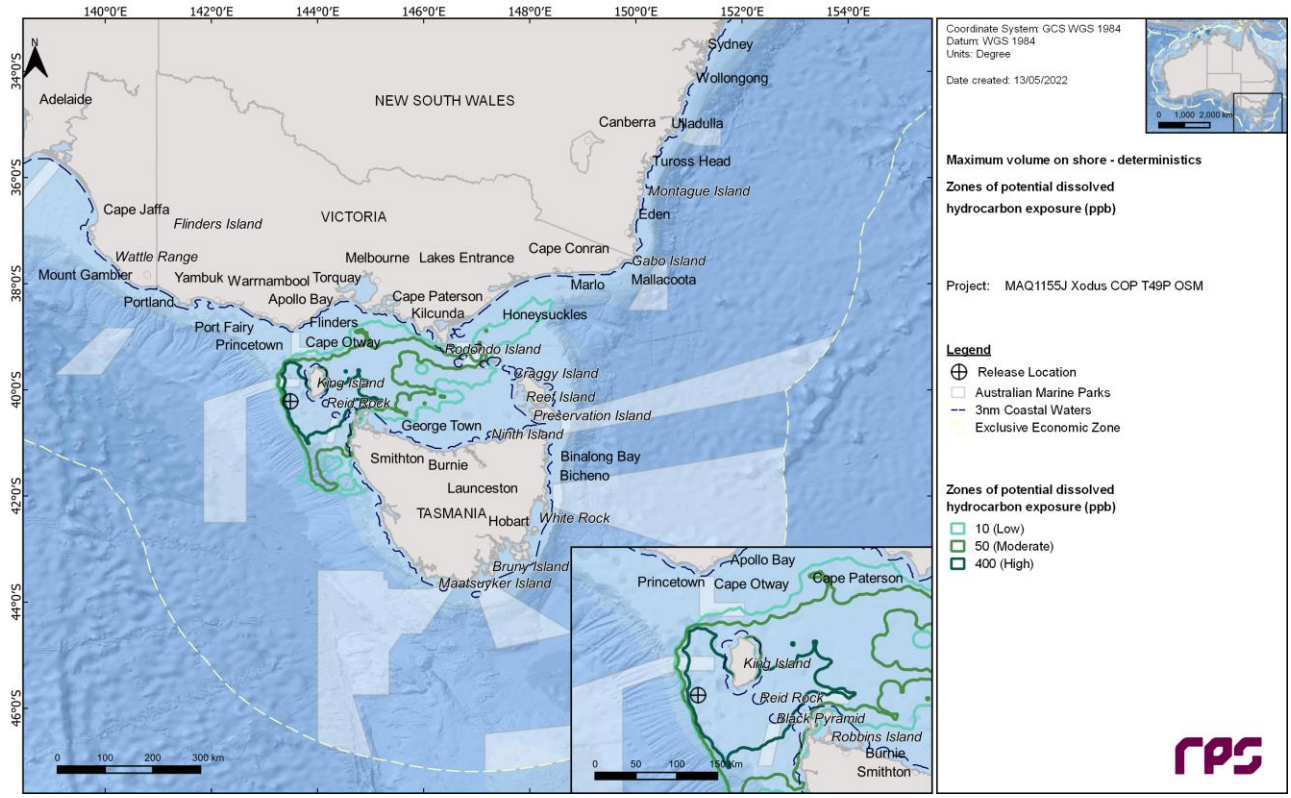


Figure 15.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

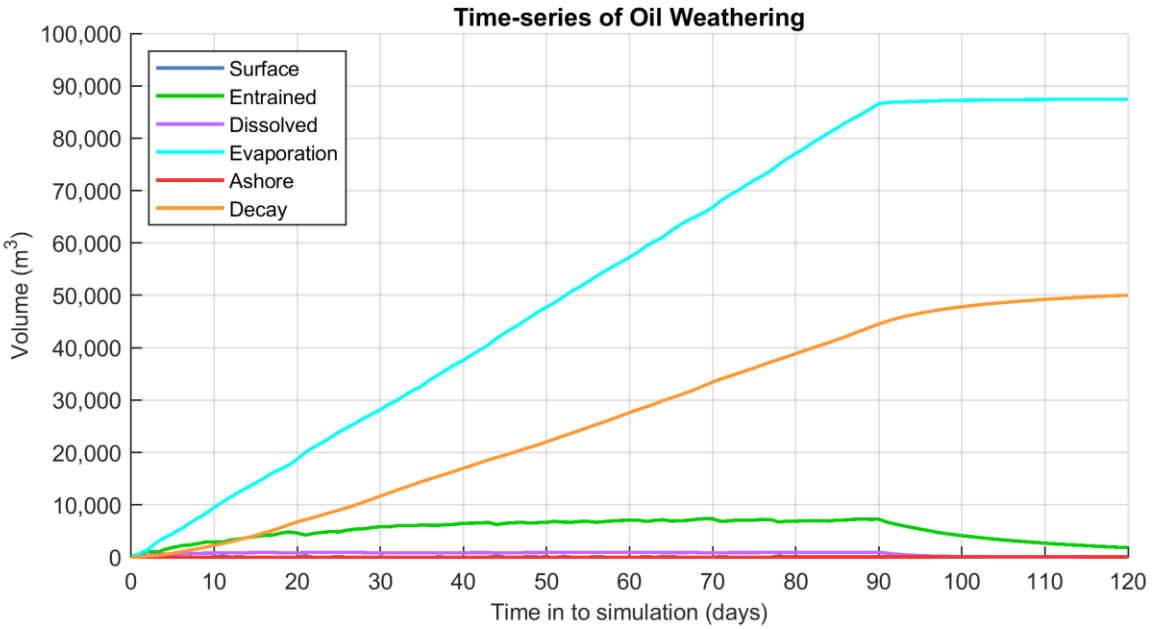


Figure 15.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

15.3.2 Largest Area of Floating Oil Exposure

The simulation that resulted in the largest swept area of floating oil exposure at or above the low exposure threshold of 1,405 km^2 was identified as run number 25 which commenced during winter conditions, 8 pm 4th July 2017.

Figure 15.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days).

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 15.11 and Figure 15.12, respectively.

Figure 15.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 88,450 m^3 (~63%) was lost to the atmosphere through evaporation. Approximately, 49,200 m^3 (~35%) of the released volume decayed, while approximately 1,700 m^3 (~1%) was predicted to remain within the water column and approximately 27 m^3 (<0.1%) remained on shorelines.

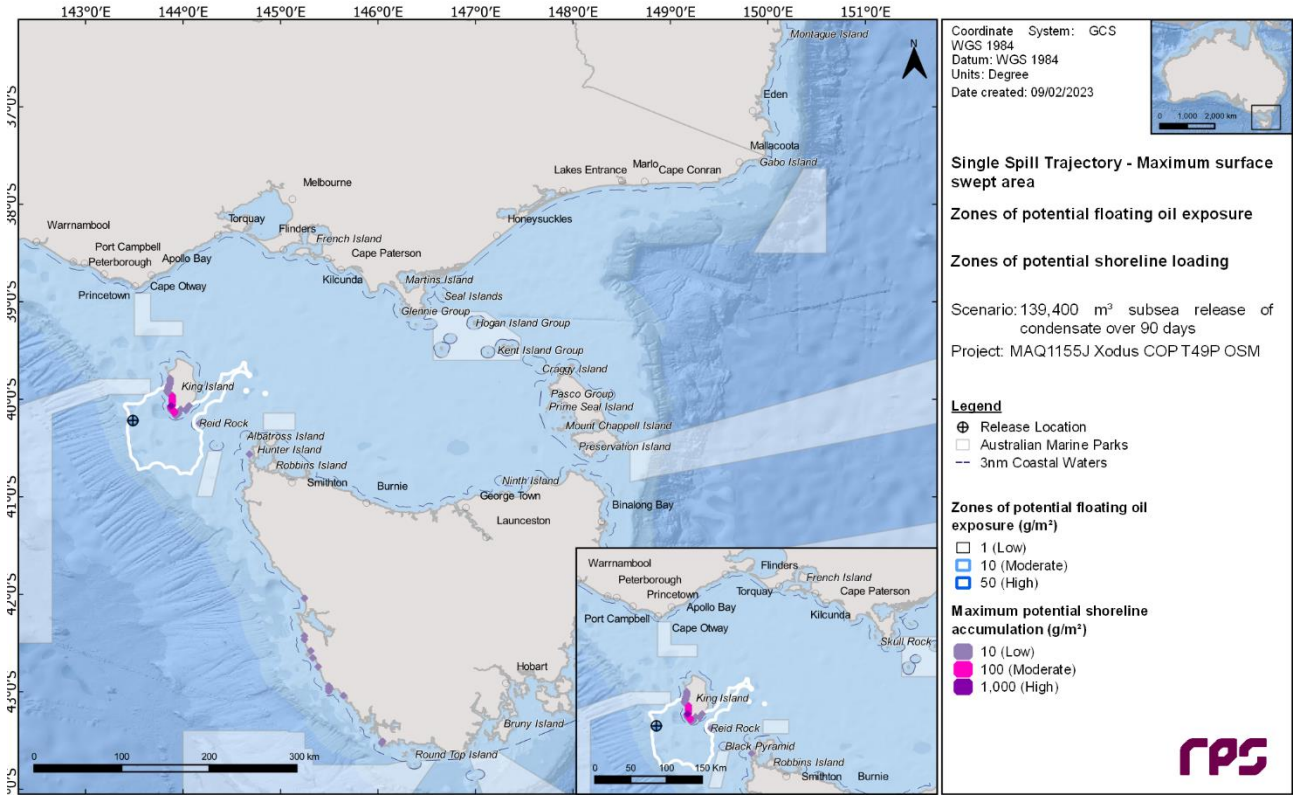


Figure 15.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days for the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

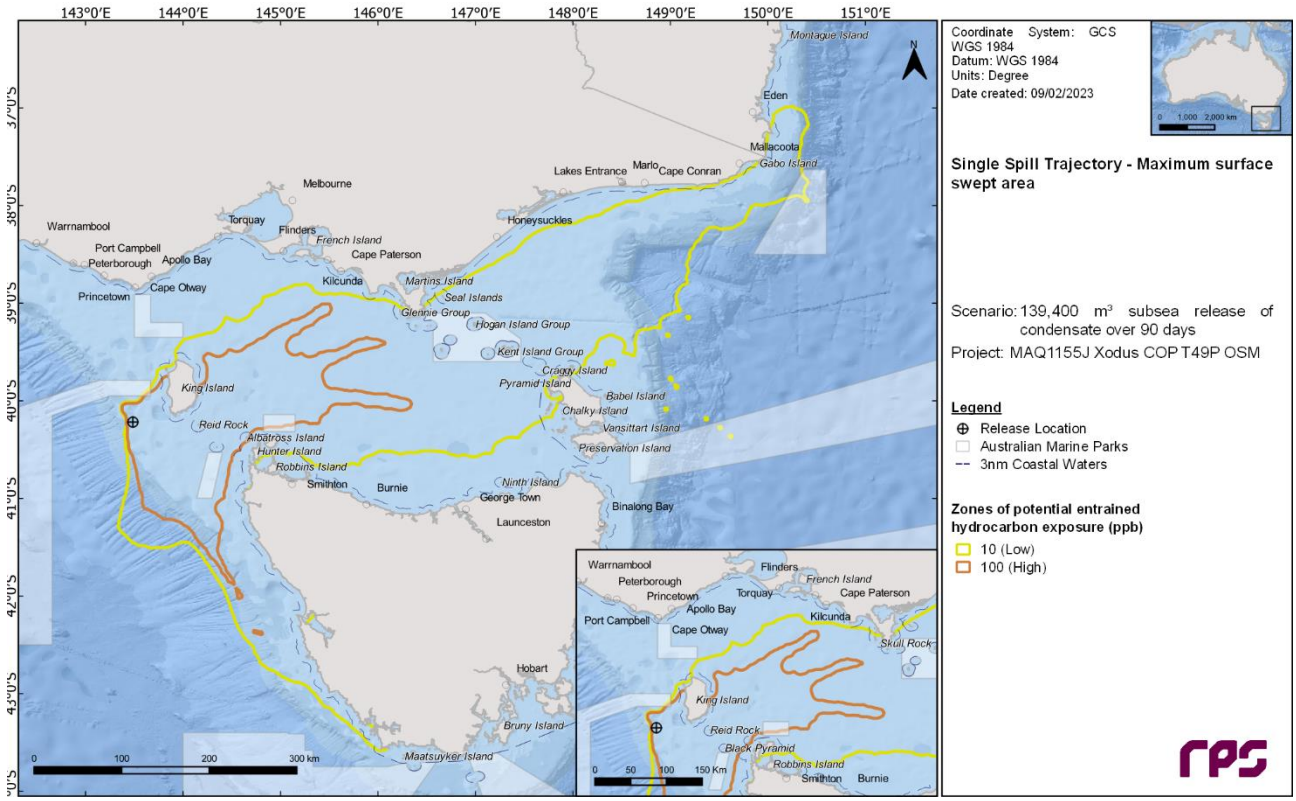


Figure 15.15 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

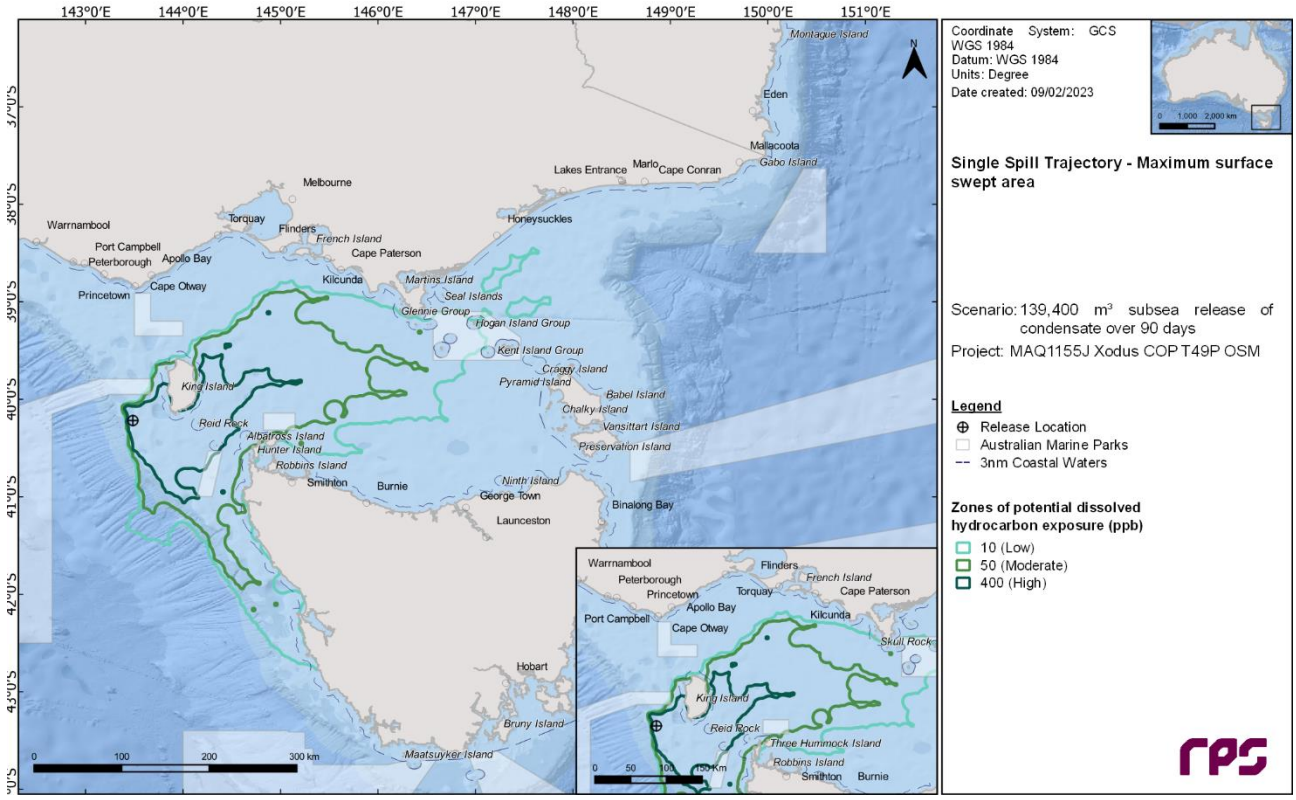


Figure 15.16 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

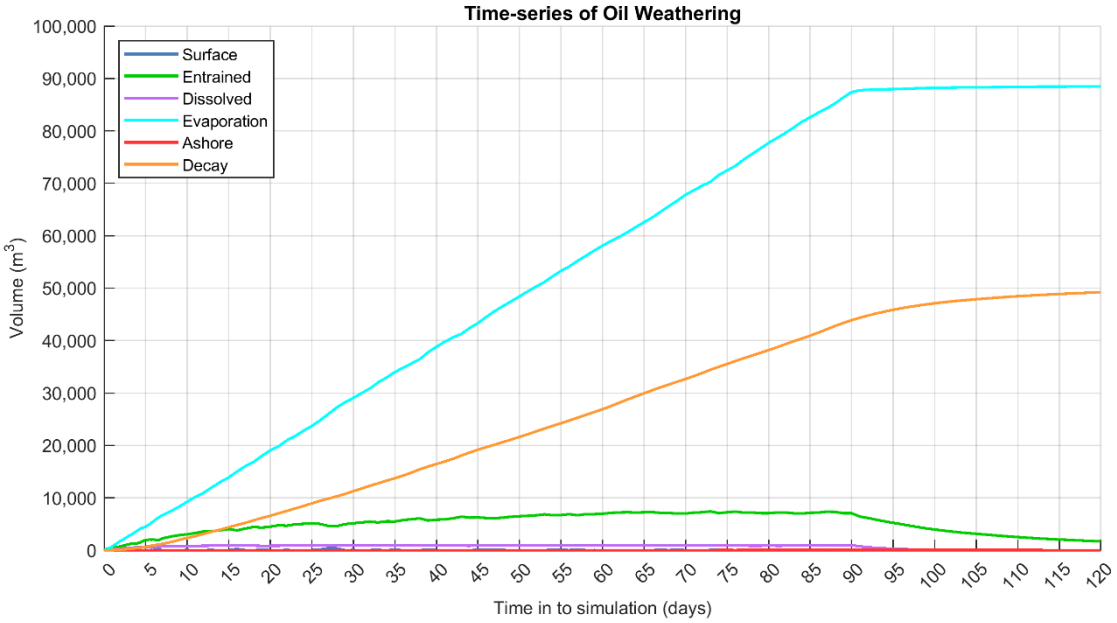


Figure 15.17 Predicted weathering and fates for the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

15.3.3 Longest Length of Shoreline Accumulation

The simulation that resulted in the longest length of hydrocarbons ashore of 133 km was identified as run number 99 which commenced during winter conditions, 8 pm 26th April 2018.

Figure 15.18 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 10 of the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 15.19 and Figure 15.20, respectively.

Figure 15.21 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 88,250 m^3 (~63%) was lost to the atmosphere through evaporation. Approximately, 48,700 m^3 (~35%) of the released volume decayed, while approximately 2,200 m^3 (~2%) was predicted to remain within the water column and approximately 30 m^3 (<0.1%) remained on shorelines.

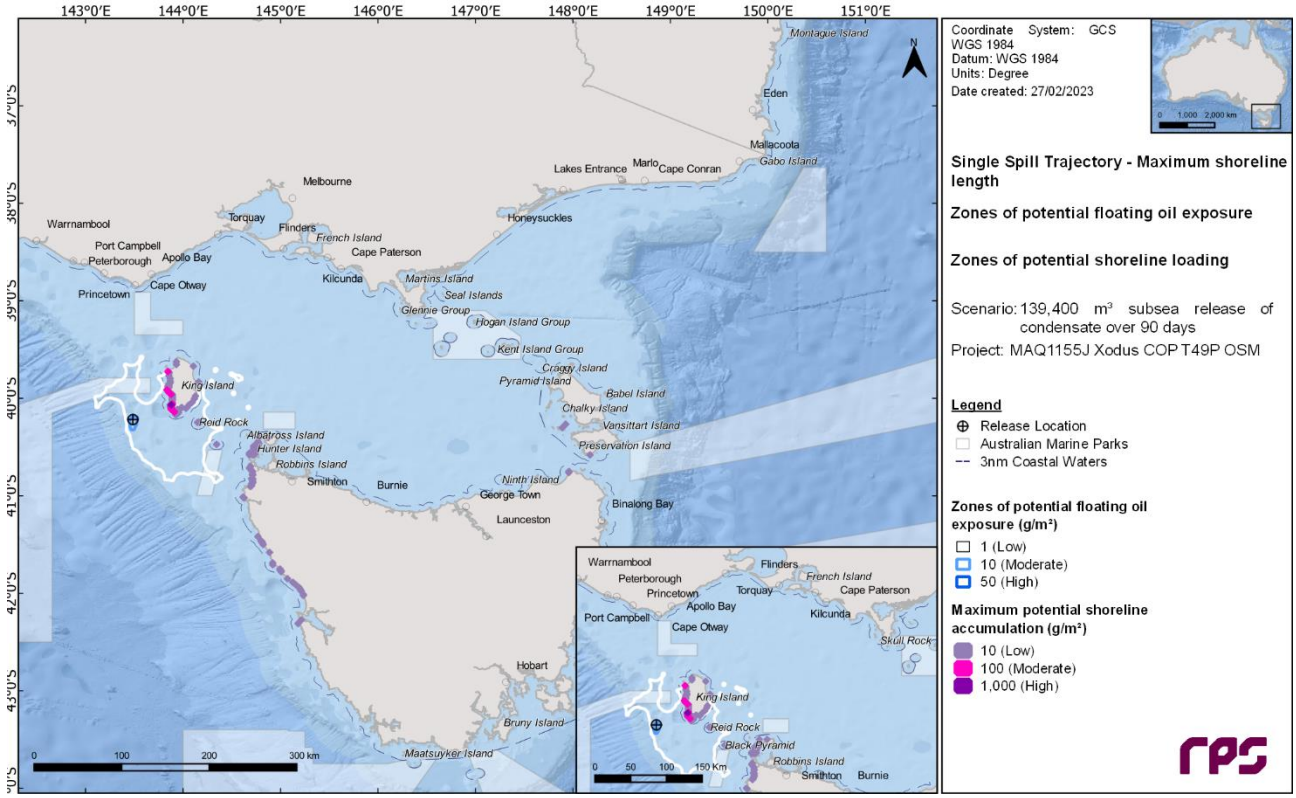


Figure 15.18 Predicted extent of the floating hydrocarbon exposure and shoreline loading over the entire 120 days for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

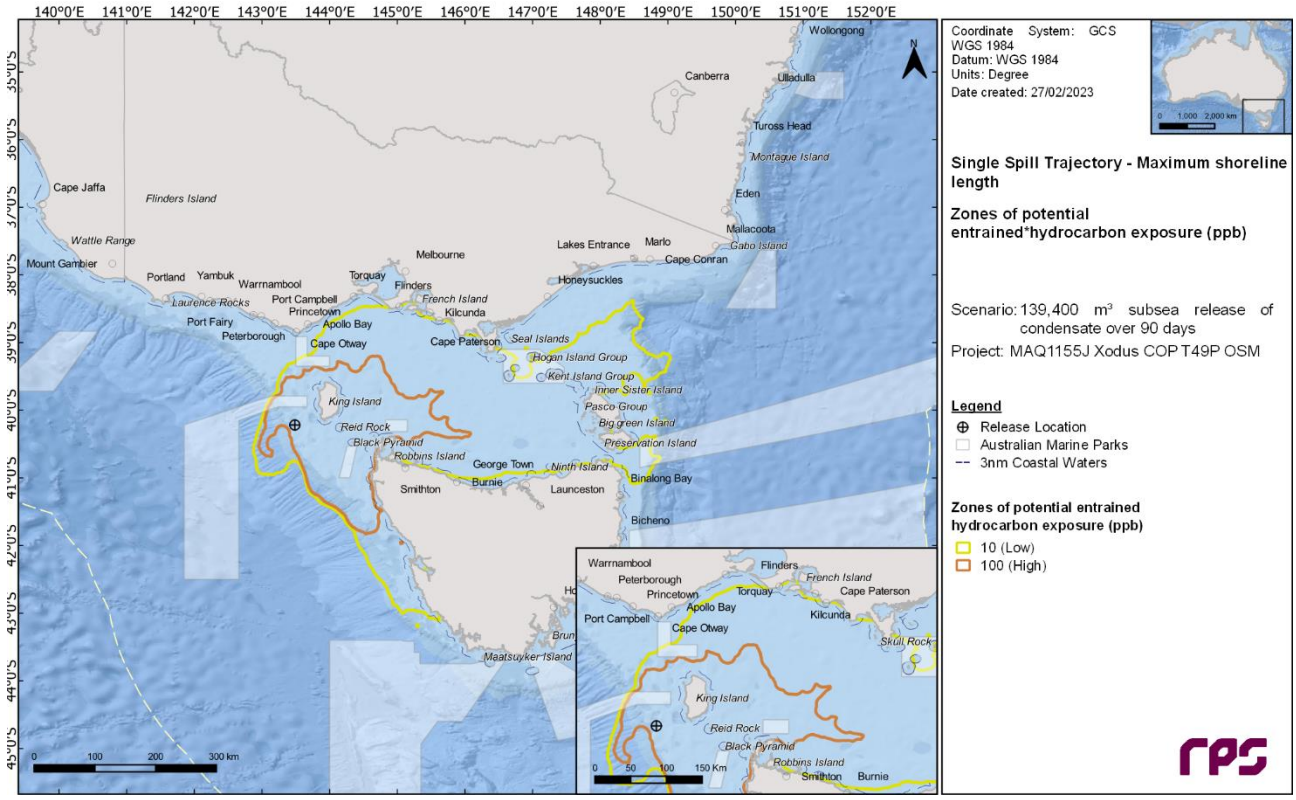


Figure 15.19 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

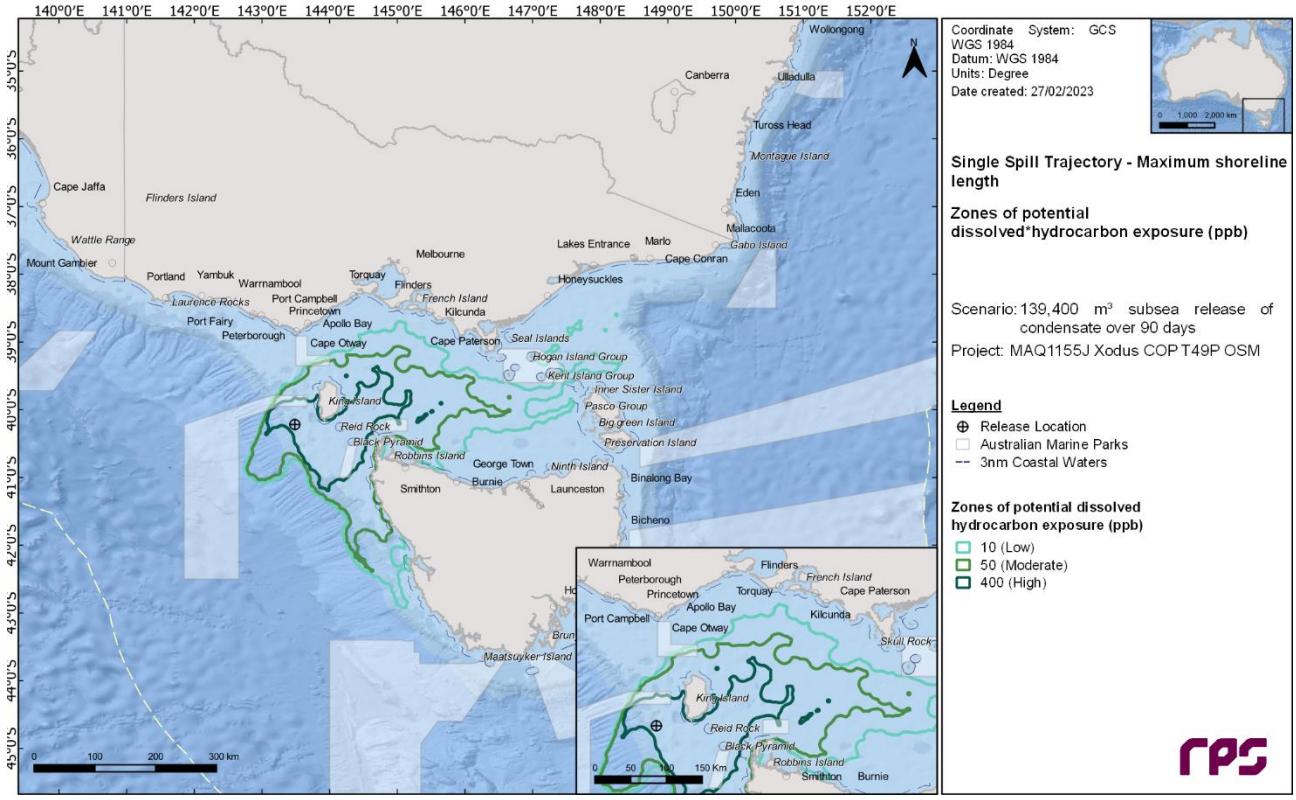


Figure 15.20 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

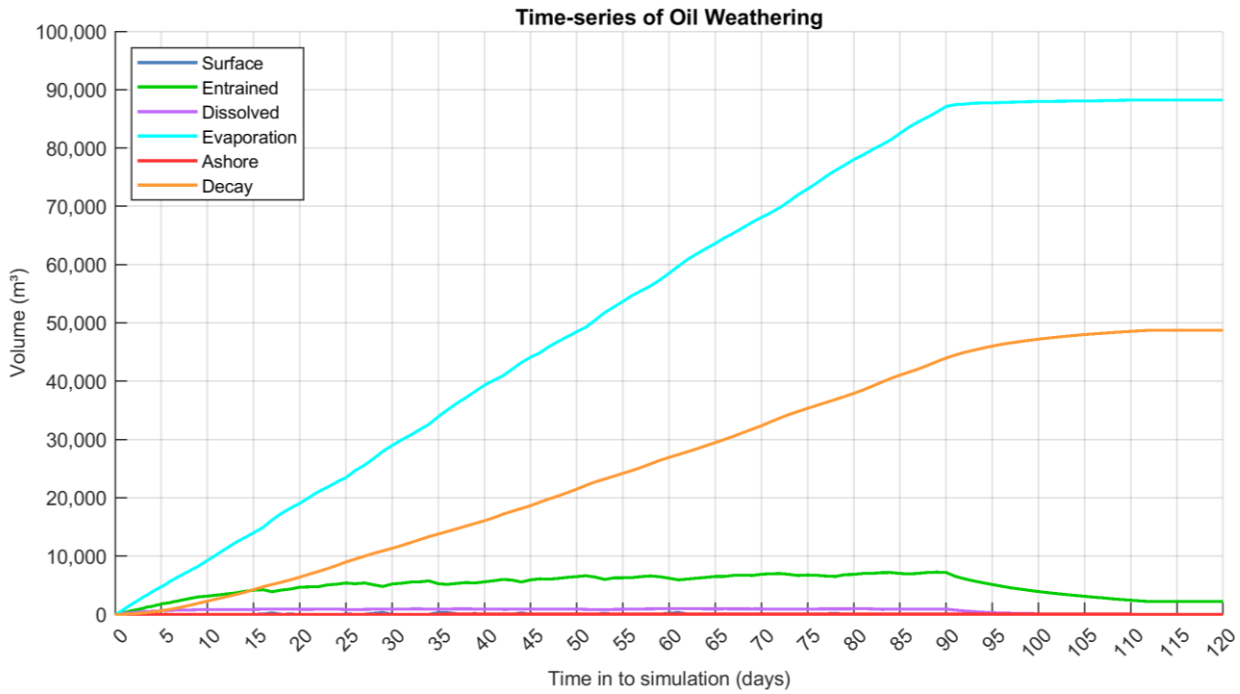


Figure 15.21 Predicted weathering and fates for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

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17 APPENDIX A

17.1 Location 1

17.1.1 Floating Oil Exposure

Table 17-1 summarises the potential floating oil exposure to BIAs for each season.

Table 17-1 Summary of the potential exposure by floating oil to BIAs from a subsea LOWC at Location 1 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
BIA	Antipodean Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Australasian Gannet - Foraging	-	-	-	-	-	-	-	-	-	-	-	-
	Black-browed Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Black-faced Cormorant - Foraging	2	-	-	84.83	-	-	31	-	-	2.71	-	-
	Bullers Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Campbell Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Common Diving-petrel - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Grey Nurse Shark - Foraging	-	-	-	-	-	-	-	-	-	-	-	-
	Humpback Whale - Foraging	-	-	-	-	-	-	-	-	-	-	-	-
	Indian Yellow-nosed Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Little Penguin - Foraging	1	-	-	90.25	-	-	21	-	-	2.71	-	-
	Pygmy Blue Whale - Distribution	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Pygmy Blue Whale - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Short-tailed Shearwater - Breeding	-	-	-	-	-	-	-	-	-	-	-	-
	Short-tailed Shearwater - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Shy Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-

Southern Right Whale - Aggregation	-	-	-	-	-	-	-	-	-	-	-	-
Southern Right Whale - Connecting Habitat	-	-	-	-	-	-	14	-	-	24.63	-	-
Southern Right Whale - Migration	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
Wandering Albatross - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
Wedge-tailed Shearwater - Foraging	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
White Shark - Breeding	-	-	-	-	-	-	-	-	-	-	-	-
White Shark - Distribution	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
White Shark - Foraging	1	-	-	94.21	-	-	13	-	-	10.08	-	-
White-faced Storm-petrel - Foraging	90	-	-	2.54	-	-	99	-	-	1.63	-	-

17.1.2 In-water exposure

17.1.2.1 Dissolved Hydrocarbons

Table 17-2 summarises the potential exposure to BIAs from dissolved hydrocarbons in the 0 – 10 m depth layer for each threshold and season.

Figure 17.1 to Figure 17.6 illustrate the extent of dissolved hydrocarbon exposure in the 10-20 m, 20 – 30 m and 30 – 50 m depth layers for each season.

Table 17-2 Probability of dissolved hydrocarbons exposure to BIAs in the 0-10 m depth layer from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
BIA	Antipodean Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
	Australasian Gannet - Foraging	635	37	10	1	497	48	11	1
	Black Petrel - Foraging	7	-	-	-	58	5	1	-
	Black-browed Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
	Black-faced Cormorant - Foraging	1,866	82	66	10	2,217	92	81	28
	Bullers Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
	Campbell Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
	Common Diving-petrel - Foraging	7,731	100	100	100	6,003	100	100	100
	Crested Tern - Breeding	3	-	-	-	70	4	1	-
	Crested Tern - Foraging	6	-	-	-	63	5	1	-
	Flesh-footed Shearwater - Foraging	7	-	-	-	58	5	1	-
	Great-winged Petrel - Foraging	2	-	-	-	20	2	-	-
	Grey Nurse Shark - Foraging	142	4	3	-	73	6	1	-
	Grey Nurse Shark - Migration	79	3	1	-	61	6	1	-
	Humpback Whale - Foraging	142	4	3	-	120	10	2	-
	Indian Yellow-nosed Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
	Indo-Pacific/Spotted Bottlenose Dolphin - Breeding	142	4	2	-	120	11	1	-
	Little Penguin - Breeding	53	6	1	-	122	42	11	-

Little Penguin - Foraging	1,003	80	57	4	1,887	87	75	18
Northern Giant Petrel - Foraging	2	-	-	-	20	2	-	-
Pygmy Blue Whale - Distribution	7,731	100	100	100	6,003	100	100	100
Pygmy Blue Whale - Foraging	7,731	100	100	100	6,003	100	100	100
Short-tailed Shearwater - Breeding	246	56	28	-	460	80	49	2
Short-tailed Shearwater - Foraging	7,731	100	100	100	6,003	100	100	100
Shy Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
Soft-plumaged Petrel - Foraging	43	3	-	-	2	-	-	-
Sooty Shearwater - Foraging	109	3	3	-	73	6	1	-
Southern Giant Petrel - Foraging	2	-	-	-	20	2	-	-
Southern Right Whale - Aggregation	425	22	9	1	615	10	10	1
Southern Right Whale - Connecting Habitat	727	66	35	2	2,106	86	65	13
Southern Right Whale - Migration	7,731	100	100	100	6,003	100	100	100
Wandering Albatross - Foraging	7,731	100	100	100	6,003	100	100	100
Wedge-tailed Shearwater - Foraging	7,731	100	100	100	6,003	100	100	100
White Shark - Breeding	831	12	4	1	1,197	48	8	1
White Shark - Distribution	7,731	100	100	100	6,003	100	100	100
White Shark - Foraging	764	53	20	1	1,386	85	44	3
White-capped Albatross - Foraging	2	-	-	-	20	2	-	-
White-faced Storm-petrel - Breeding	72	2	1	-	70	5	1	-
White-faced Storm-petrel - Foraging	3,730	97	96	52	2,898	100	100	53
Wilsons Storm Petrel - Migration	2	-	-	-	20	2	-	-

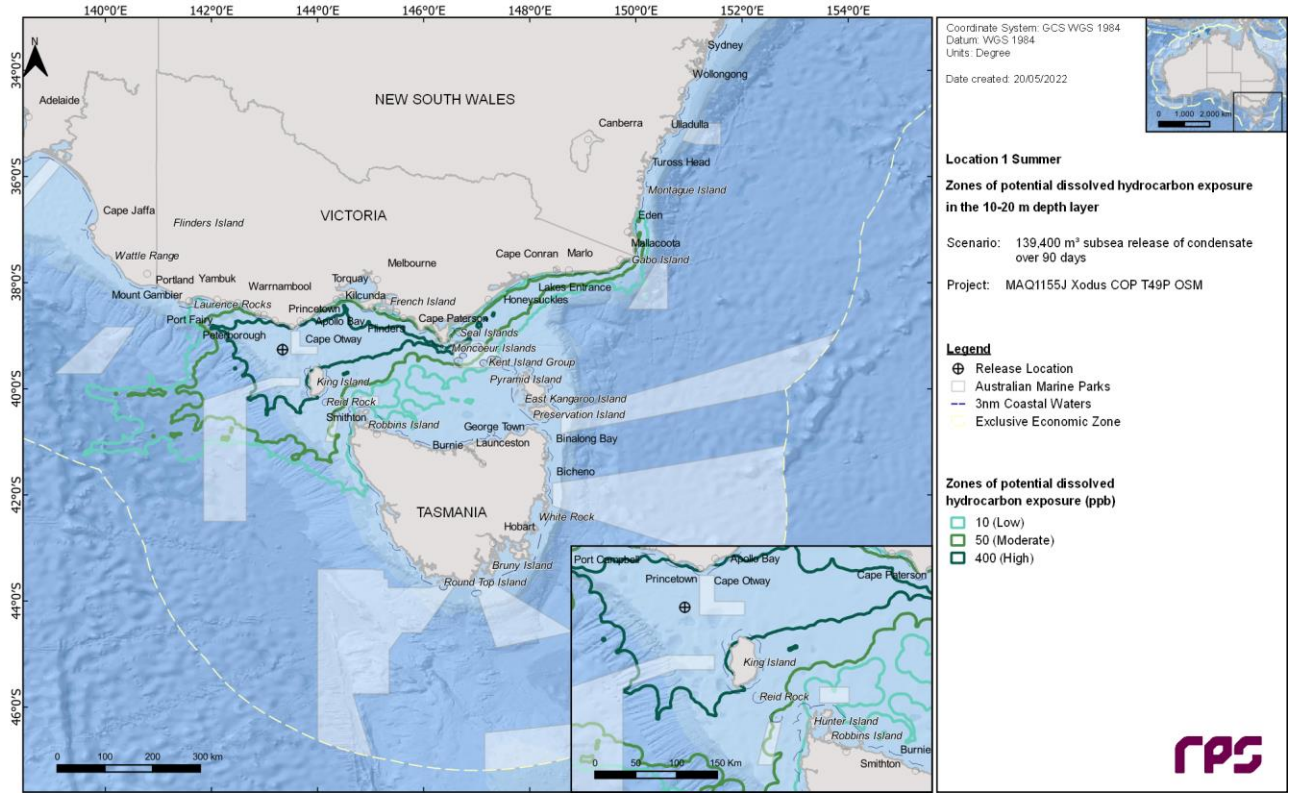


Figure 17.1 Zones of potential dissolved hydrocarbon exposure at 10-20 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

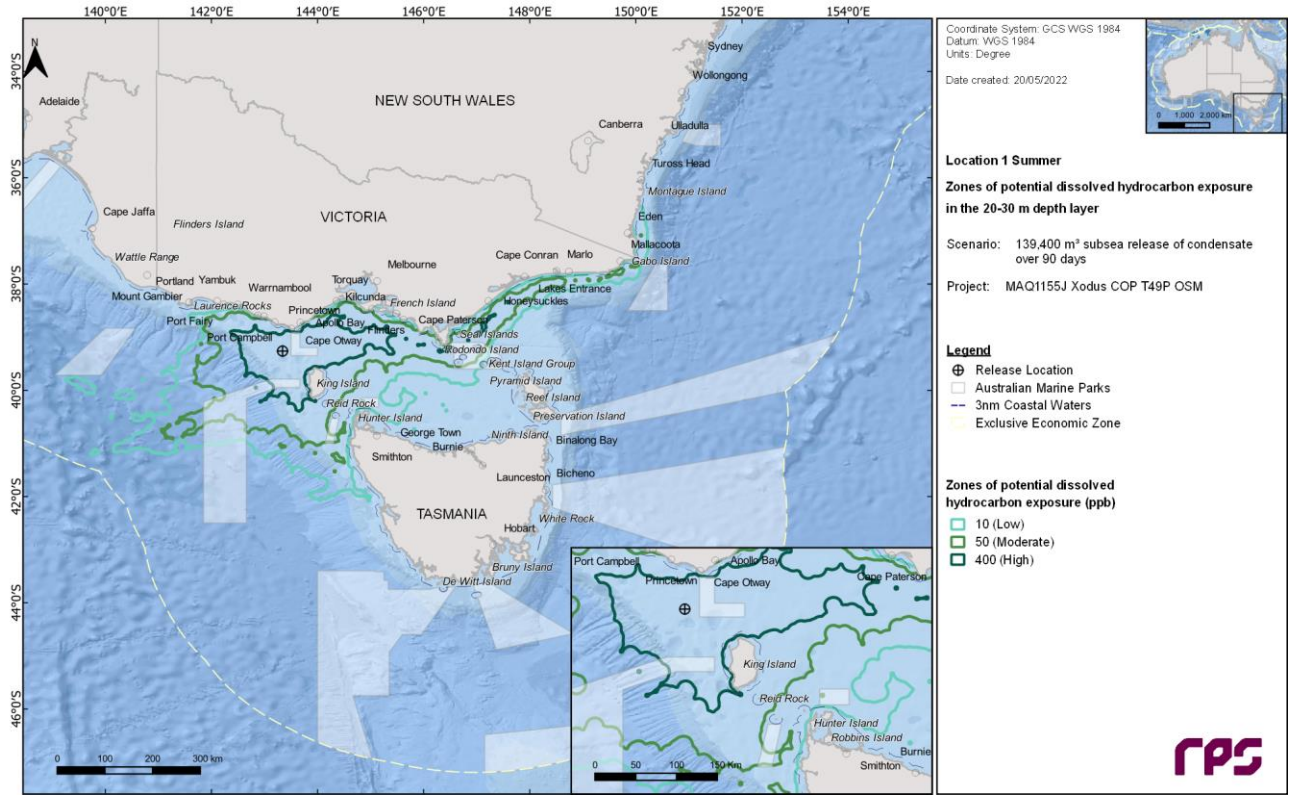


Figure 17.2 Zones of potential dissolved hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

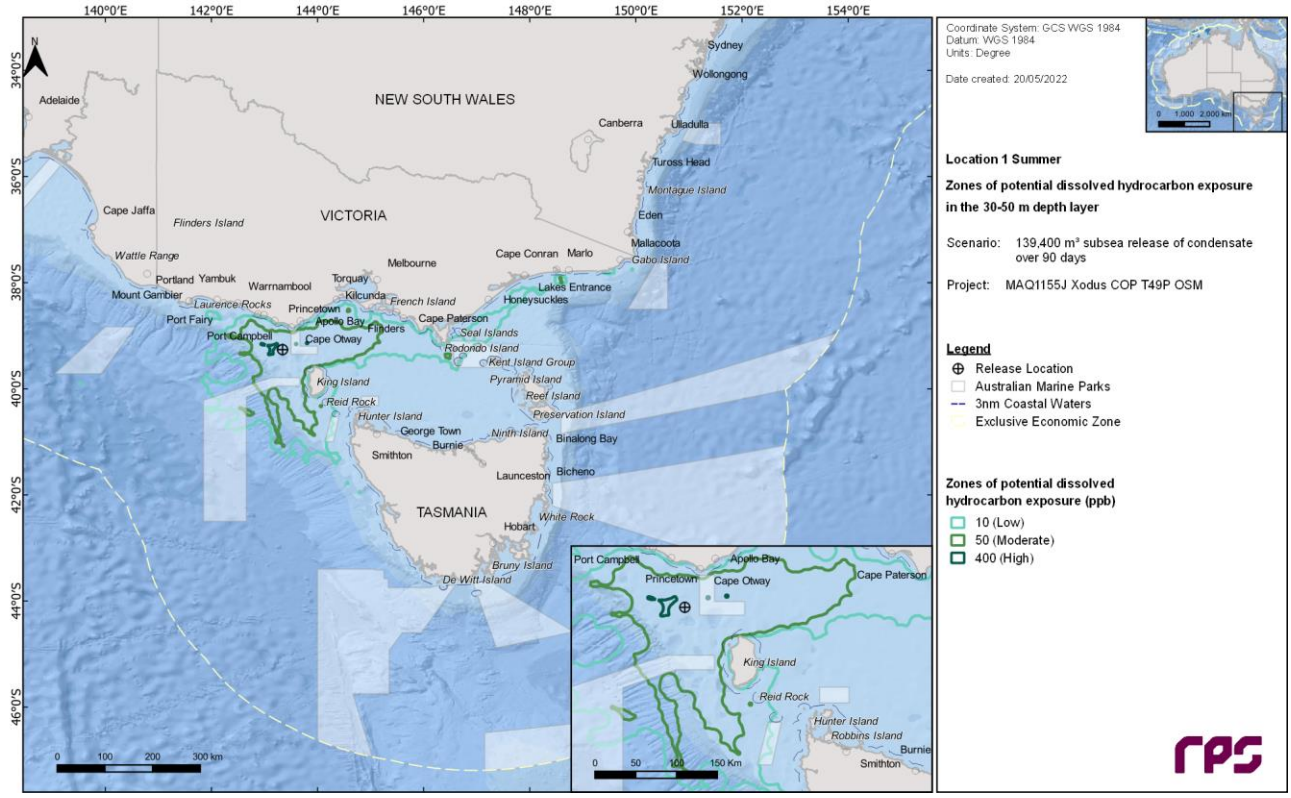


Figure 17.3 Zones of potential dissolved hydrocarbon exposure at 30 - 50 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

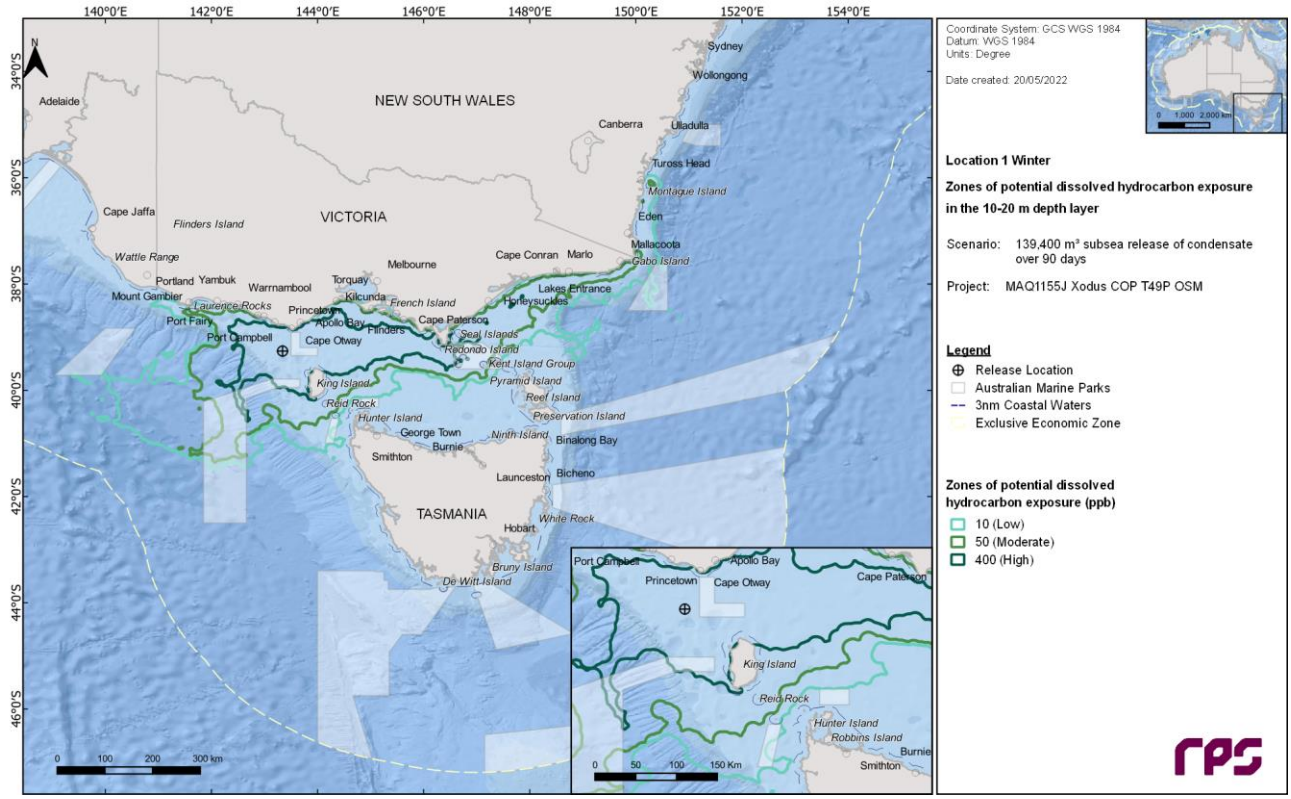


Figure 17.4 Zones of potential dissolved hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

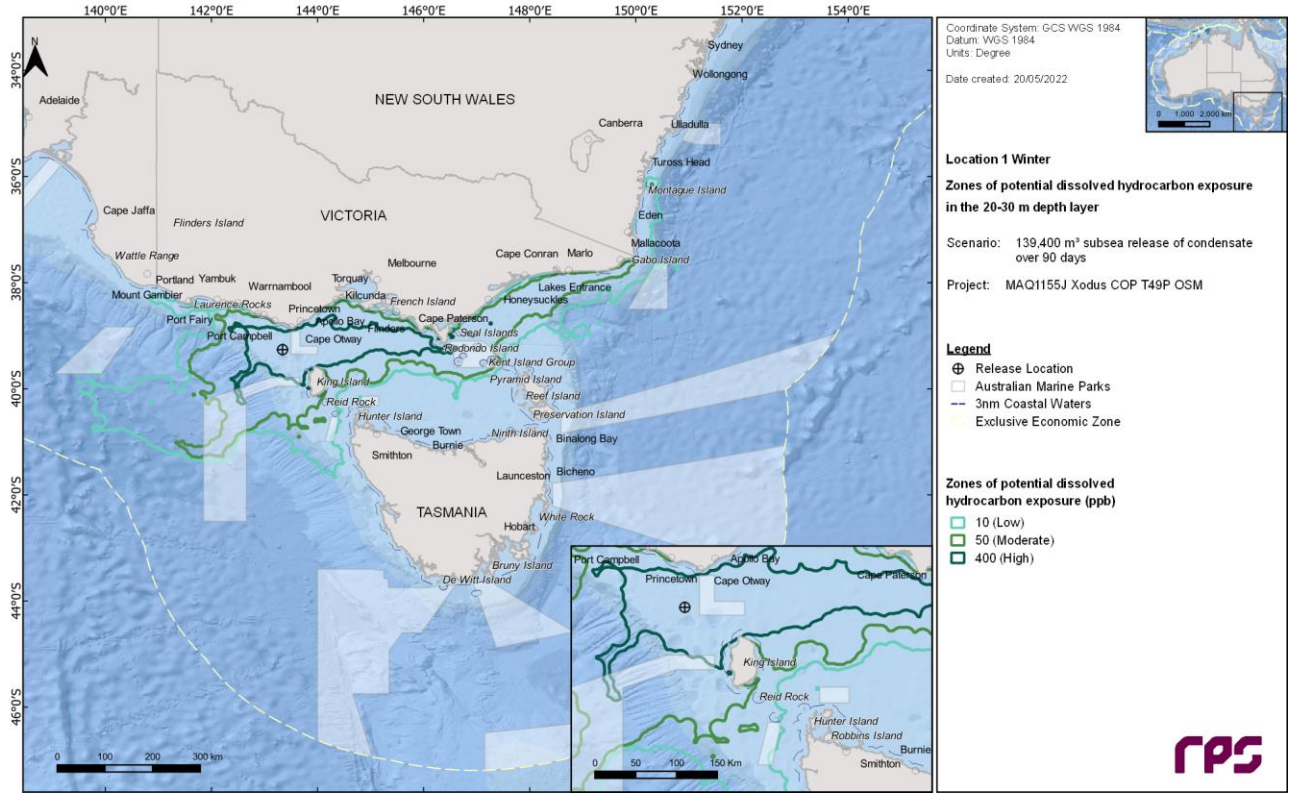


Figure 17.5 Zones of potential dissolved hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

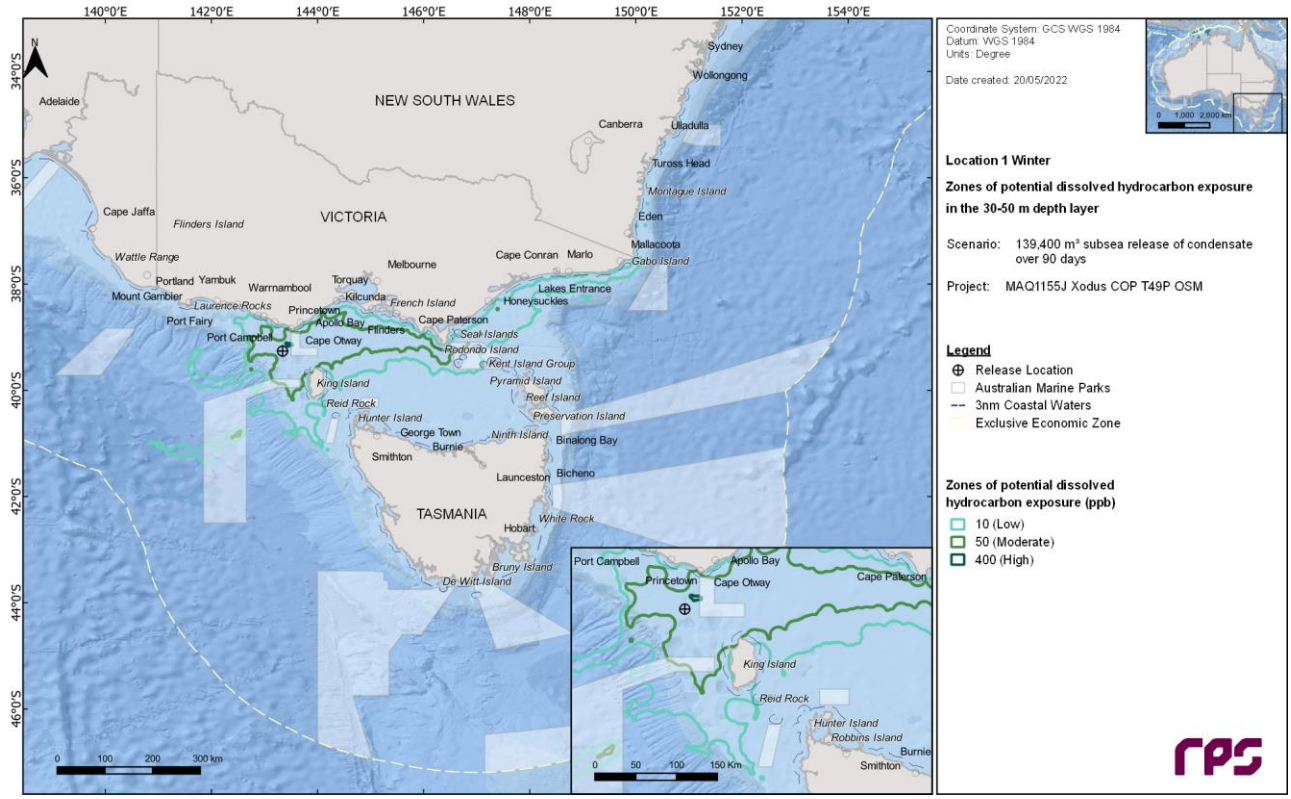


Figure 17.6 Zones of potential dissolved hydrocarbon exposure at 30 - 50 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

17.1.2.2 Entrained Hydrocarbons

Table 17-3 summarises the potential exposure to BIAs from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 17.7 to Figure 17.10 illustrate extent of entrained hydrocarbon exposure for each season in the 10 - 20 m and 20 – 30 m depth layers.

Table 17-3 Probability of entrained hydrocarbons exposure to BIAs in the 0-10 m depth layer from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
BIA	Antipodean Albatross - Foraging	11,005	100	100	11,153	100	100
	Australasian Gannet - Foraging	391	81	22	352	77	20
	Australian Sea Lion - Foraging	12	2	-	3	-	-
	Black Petrel - Foraging	40	11	-	61	39	-
	Black-browed Albatross - Foraging	11,005	100	100	11,153	100	100
	Black-faced Cormorant - Foraging	857	99	70	1,259	98	91
	Bullers Albatross - Foraging	11,005	100	100	11,153	100	100
	Campbell Albatross - Foraging	11,005	100	100	11,153	100	100
	Common Diving-petrel - Foraging	11,005	100	100	11,153	100	100
	Crested Tern - Breeding	32	6	-	38	30	-
	Crested Tern - Foraging	36	9	-	45	34	-
	Flesh-footed Shearwater - Foraging	40	11	-	61	39	-
	Great-winged Petrel - Foraging	40	9	-	61	27	-
	Grey Nurse Shark - Foraging	183	28	5	190	80	5
	Grey Nurse Shark - Migration	267	28	6	269	79	5
	Humpback Whale - Foraging	267	28	6	269	82	5
	Indian Yellow-nosed Albatross - Foraging	11,005	100	100	11,153	100	100
	Indo-Pacific/Spotted Bottlenose Dolphin - Breeding	78	27	-	79	80	-
	Little Penguin - Breeding	104	46	1	258	84	22
	Little Penguin - Foraging	661	96	68	1,259	97	90
	Northern Giant Petrel - Foraging	40	9	-	61	27	-
	Pygmy Blue Whale - Distribution	11,005	100	100	11,153	100	100
	Pygmy Blue Whale - Foraging	11,005	100	100	11,153	100	100
	Short-tailed Shearwater - Breeding	426	89	38	711	97	75
	Short-tailed Shearwater - Foraging	11,005	100	100	11,153	100	100
	Shy Albatross - Foraging	11,005	100	100	11,153	100	100
	Soft-plumaged Petrel - Foraging	45	42	-	18	6	-
	Sooty Shearwater - Foraging	267	28	6	269	74	5
	Southern Giant Petrel - Foraging	40	9	-	61	27	-

Southern Right Whale - Aggregation	426	59	29	348	25	9
Southern Right Whale - Connecting Habitat	998	93	53	1,054	98	78
Southern Right Whale - Migration	11,005	100	100	11,153	100	100
Wandering Albatross - Foraging	11,005	100	100	11,153	100	100
Wedge-tailed Shearwater - Foraging	11,005	100	100	11,153	100	100
White Shark - Breeding	130	52	4	141	92	10
White Shark - Distribution	11,005	100	100	11,153	100	100
White Shark - Foraging	1,037	92	35	960	100	61
White-capped Albatross - Foraging	40	9	-	61	27	-
White-faced Storm-petrel - Breeding	203	25	5	200	59	3
White-faced Storm-petrel - Foraging	1,720	100	97	1,477	100	100
White-fronted Tern - Foraging	13	3	-	7	--	-
Wilsons Storm Petrel - Migration	40	9	-	61	27	-

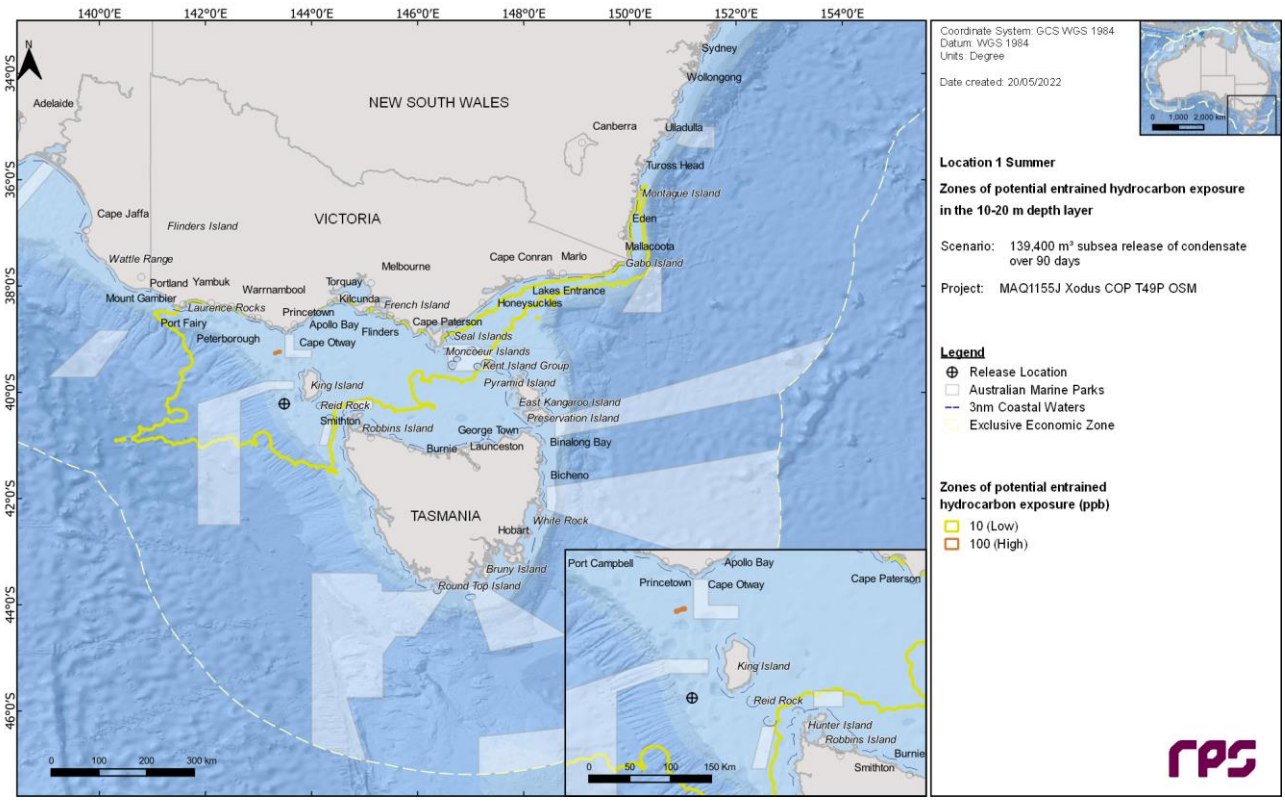


Figure 17.7 Zones of potential entrained hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

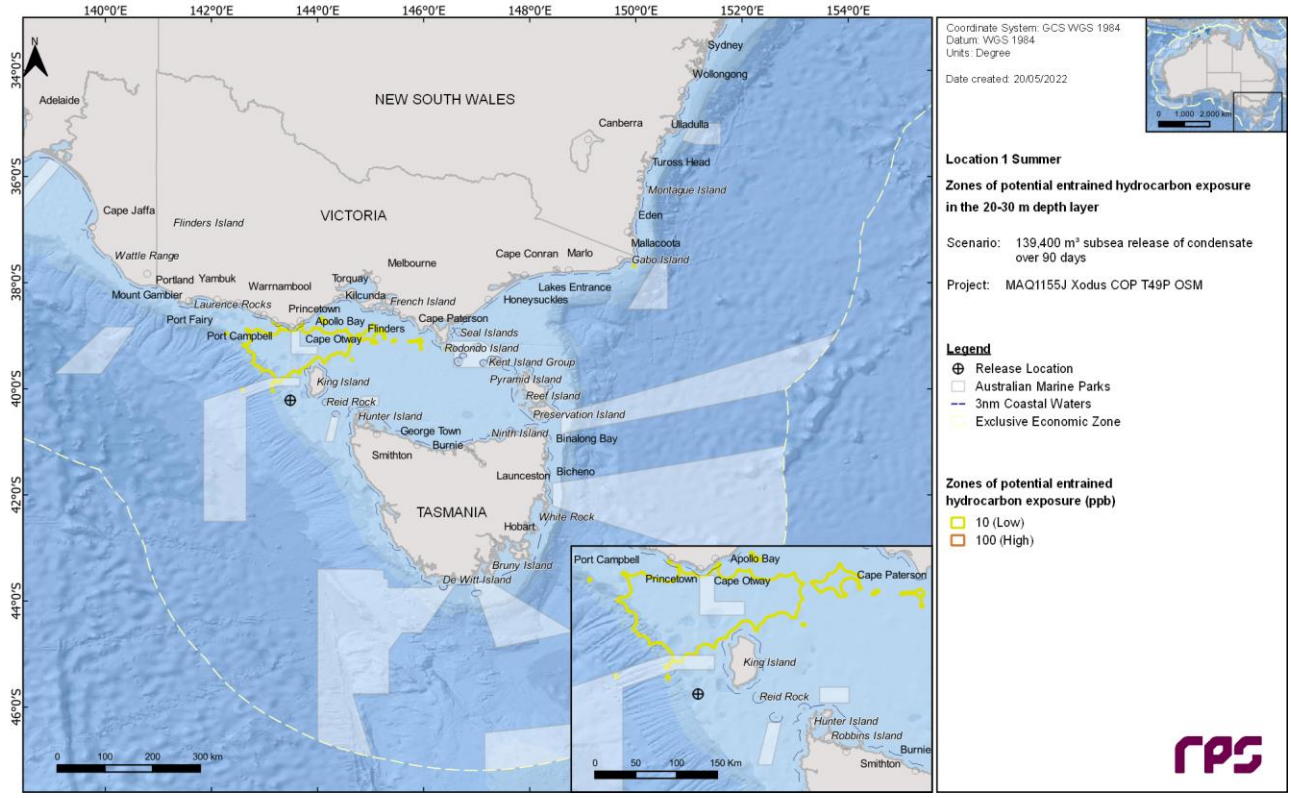


Figure 17.8 Zones of potential entrained hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

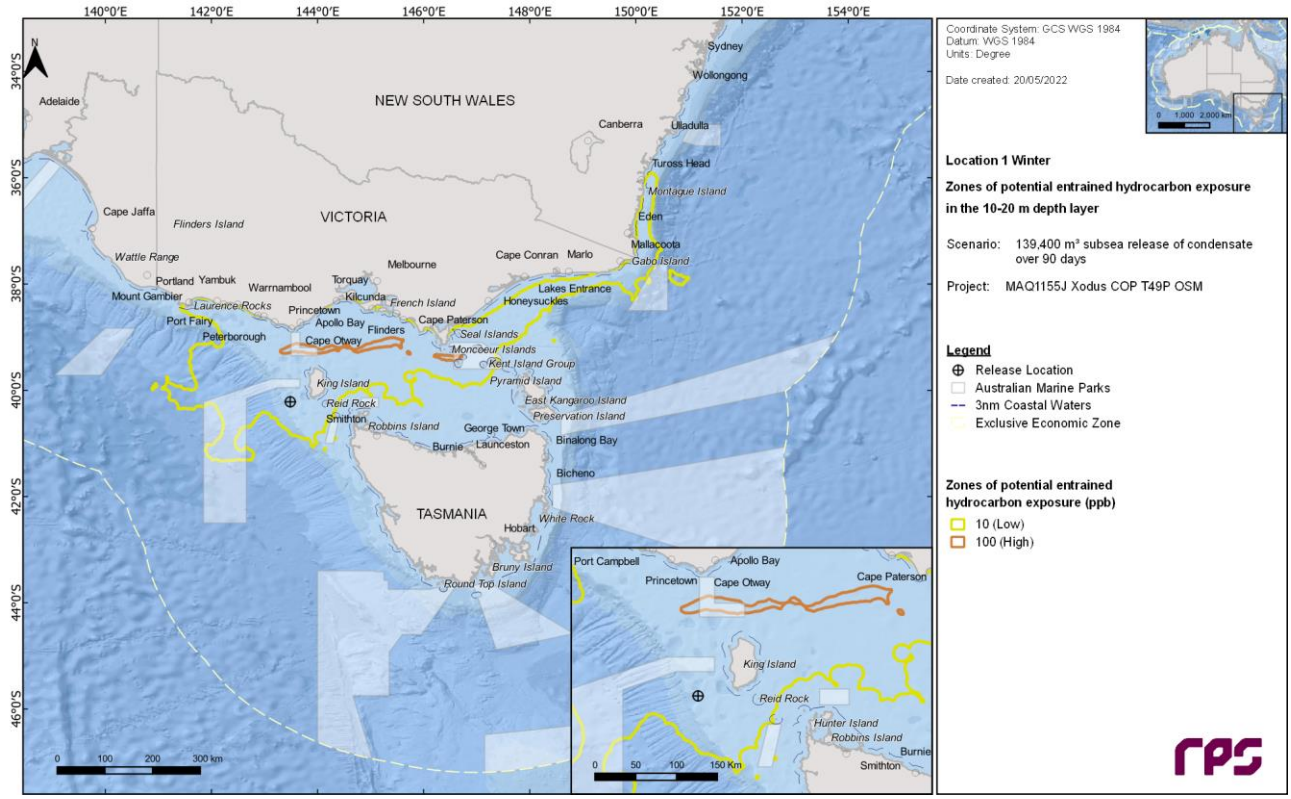


Figure 17.9 Zones of potential entrained hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

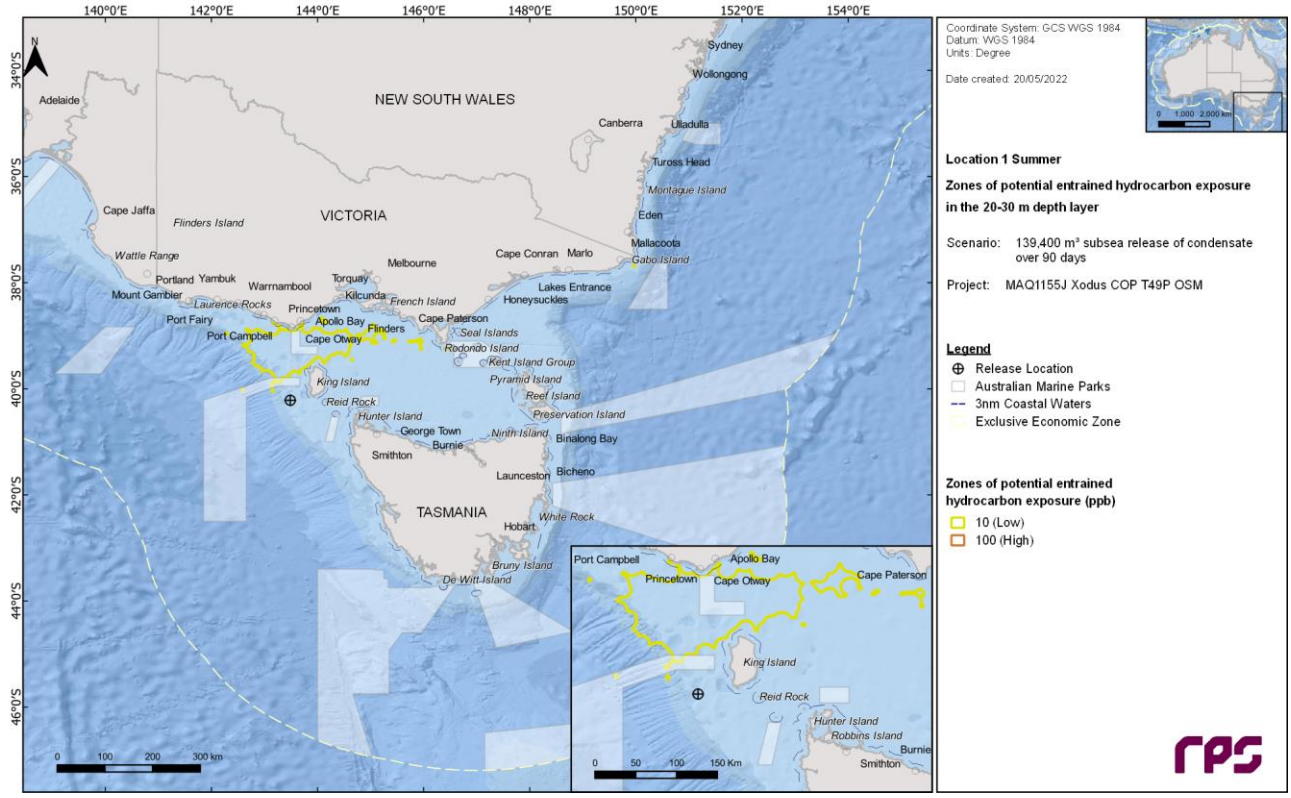


Figure 17.10 Zones of potential entrained hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

17.2 Location 2

17.2.1 Floating Oil Exposure

Table 17-4 summarises the potential floating oil exposure to BIAs for each season.

Table 17-4 Summary of the potential exposure by floating oil to BIAs from a subsea LOWC at Location 2 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
BIA	Antipodean Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Australasian Gannet - Foraging	1	-	-	84.33	-	-	37	-	-	5.17	-	-
	Black-browed Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Black-faced Cormorant - Foraging	98	-	-	1	-	-	100	-	-	0.88	-	-
	Bullers Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Campbell Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Common Diving-petrel - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Indian Yellow-nosed Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Little Penguin - Foraging	88	-	-	1.17	-	-	100	-	-	1.08	-	-
	Pygmy Blue Whale - Distribution	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Pygmy Blue Whale - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Short-tailed Shearwater - Breeding	3	-	-	63	-	-	2	-	-	12.21	-	-
	Short-tailed Shearwater - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Shy Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Southern Right Whale - Connecting Habitat	97	-	-	2.29	-	-	100	-	-	1.17	-	-
	Southern Right Whale - Migration	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Wandering Albatross - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	Wedge-tailed Shearwater - Foraging	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
	White Shark - Breeding	-	-	-	-	-	-	-	-	-	-	-	-

White Shark - Distribution	100	100	1	0.04	0.08	48.92	100	100	1	0.04	0.08	79.88
White Shark - Foraging	63	-	-	2.67	-	-	97	-	-	1.46	-	-
White-faced Storm-petrel - Foraging	99	-	-	0.92	-	-	100	-	-	0.83	-	-

17.2.2 In-water exposure

17.2.2.1 Dissolved Hydrocarbons

Table 17-5 summarises the potential exposure to BIAs from dissolved hydrocarbons in the 0 – 10 m depth layer for each threshold and season.

Figure 17.11 to Figure 17.16 illustrate the extent of dissolved hydrocarbon exposure in the 10-20 m, 20 – 30 m and 30 – 50 m depth layers for each season.

Table 17-5 Probability of dissolved hydrocarbons exposure to BIAs in the 0-10 m depth layer from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor	Summer				Winter			
	Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
		Low	Moderate	High		Low	Moderate	High
Antipodean Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Australasian Gannet - Foraging	2,512	97	76	8	2,788	100	92	26
Black Petrel - Foraging	3	-	-	-	13	1	-	-
Black-browed Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Black-faced Cormorant - Foraging	6,498	100	100	98	5,377	100	100	100
Bullers Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Campbell Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Common Diving-petrel - Foraging	7,872	100	100	100	9,003	100	100	100
Crested Tern - Foraging	3	-	-	-	13	1	-	-
Flesh-footed Shearwater - Foraging	3	-	-	-	13	1	-	-
Grey Nurse Shark - Foraging	6	-	-	-	44	2	-	-
Grey Nurse Shark - Migration	4	-	-	-	40	1	-	-
Humpback Whale - Foraging	6	-	-	-	44	2	-	-
Indian Yellow-nosed Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Indo-Pacific/Spotted Bottlenose Dolphin - Breeding	6	-	-	-	42	2	-	-
Little Penguin - Breeding	51	4	1	-	91	19	1	-
Little Penguin - Foraging	6,498	100	100	96	4,540	100	100	100
Pygmy Blue Whale - Distribution	7,872	100	100	100	9,003	100	100	100

Pygmy Blue Whale - Foraging	7,872	100	100	100	9,003	100	100	100
Short-tailed Shearwater - Breeding	1,584	85	68	22	1,798	100	100	46
Short-tailed Shearwater - Foraging	7,872	100	100	100	9,003	100	100	100
Shy Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Soft-plumaged Petrel - Foraging	340	24	5	-	474	19	7	1
Sooty Shearwater - Foraging	20	2	-	-	40	2	-	-
Southern Right Whale - Aggregation	33	1	-	-	9	-	-	-
Southern Right Whale - Connecting Habitat	4,181	100	100	86	4,540	100	100	100
Southern Right Whale - Migration	7,872	100	100	100	9,003	100	100	100
Wandering Albatross - Foraging	7,872	100	100	100	9,003	100	100	100
Wedge-tailed Shearwater - Foraging	7,872	100	100	100	9,003	100	100	100
White Shark - Breeding	121	5	2	-	174	11	2	-
White Shark - Distribution	7,872	100	100	100	9,003	100	100	100
White Shark - Foraging	4,181	100	99	77	6,198	100	100	99
White-faced Storm-petrel - Breeding	4	-	-	-	18	1	-	-
White-faced Storm-petrel - Foraging	5,208	100	100	100	6,281	100	100	100

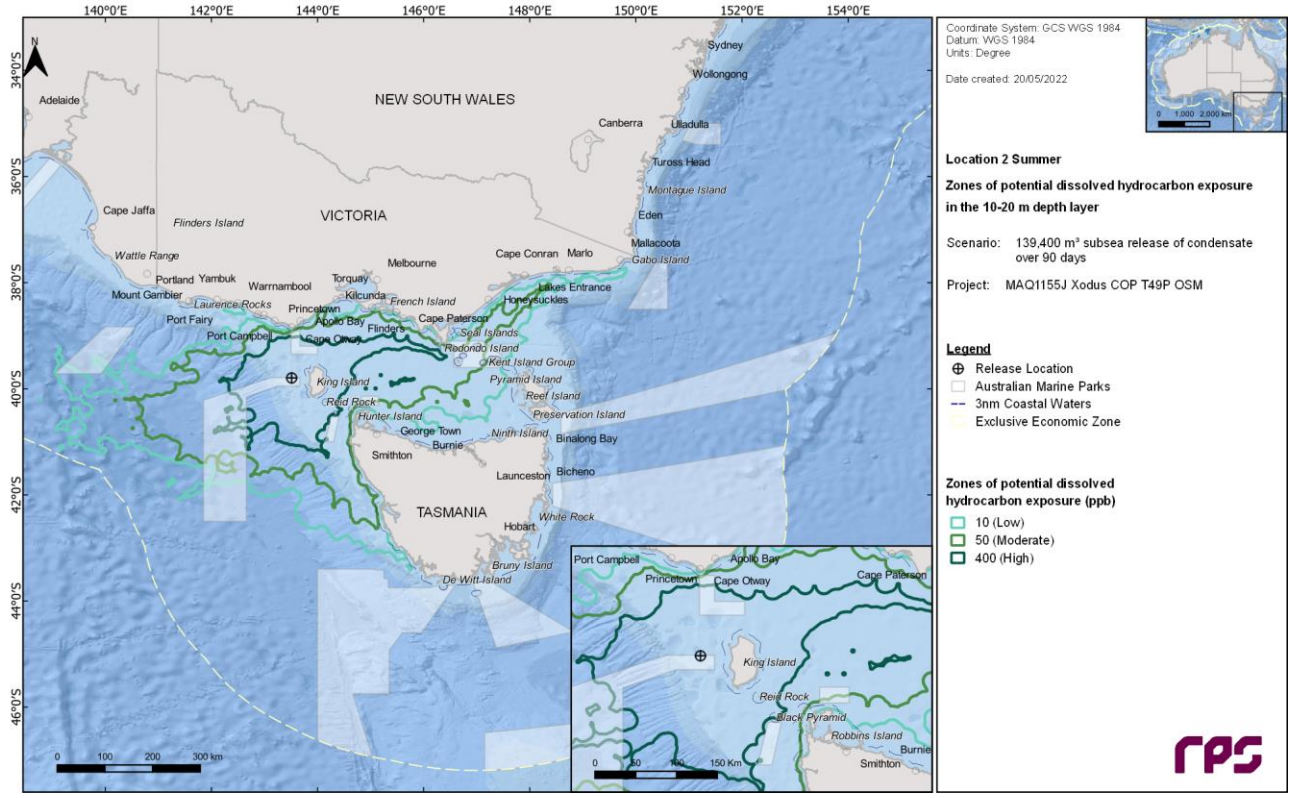


Figure 17.11 Zones of potential dissolved hydrocarbon exposure at 10-20 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

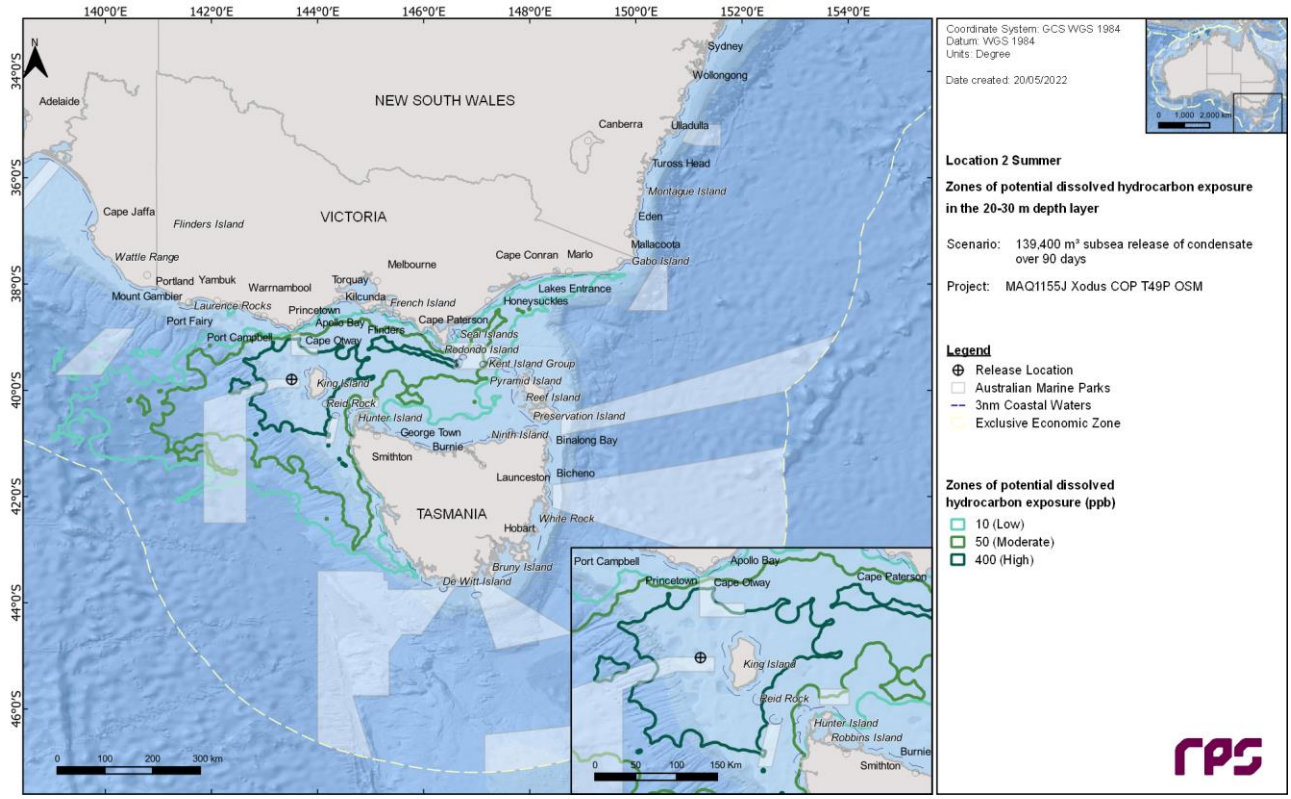


Figure 17.12 Zones of potential dissolved hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

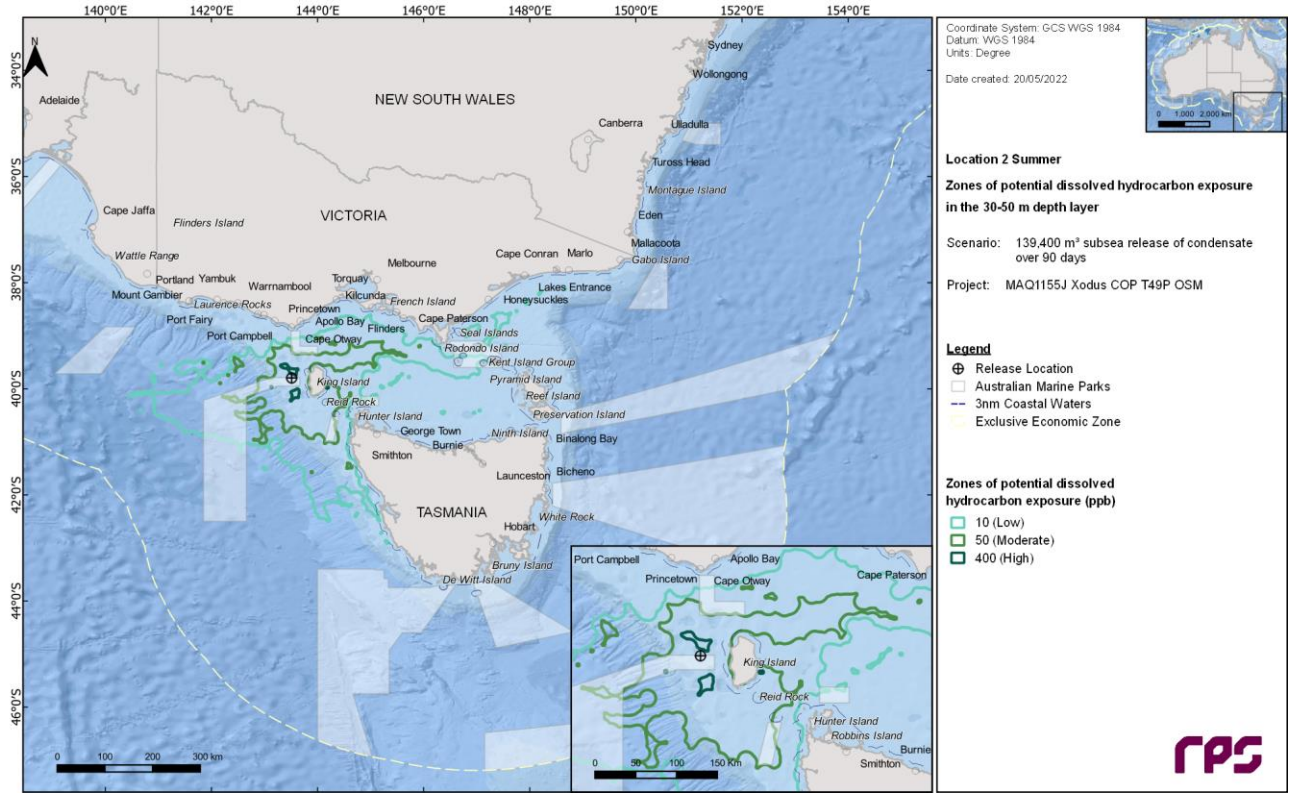


Figure 17.13 Zones of potential dissolved hydrocarbon exposure at 30 - 50 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

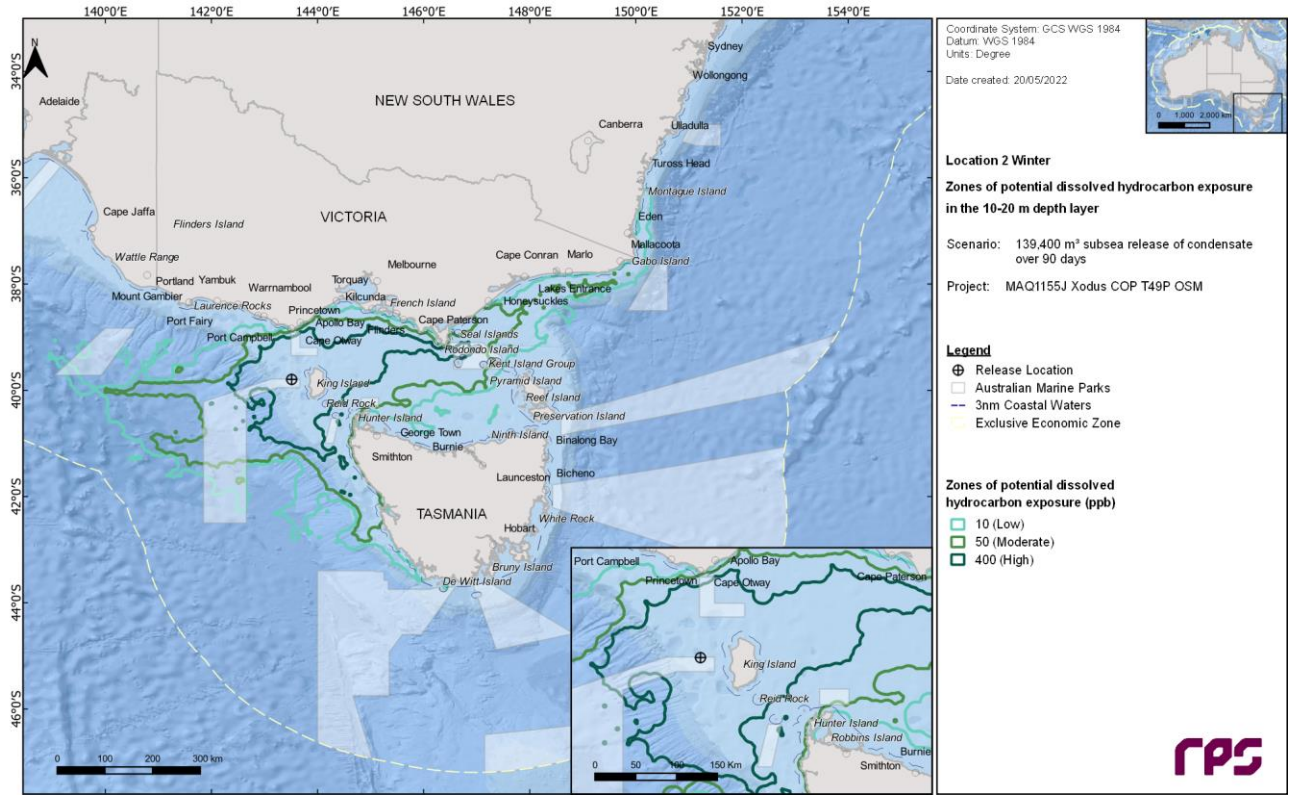


Figure 17.14 Zones of potential dissolved hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

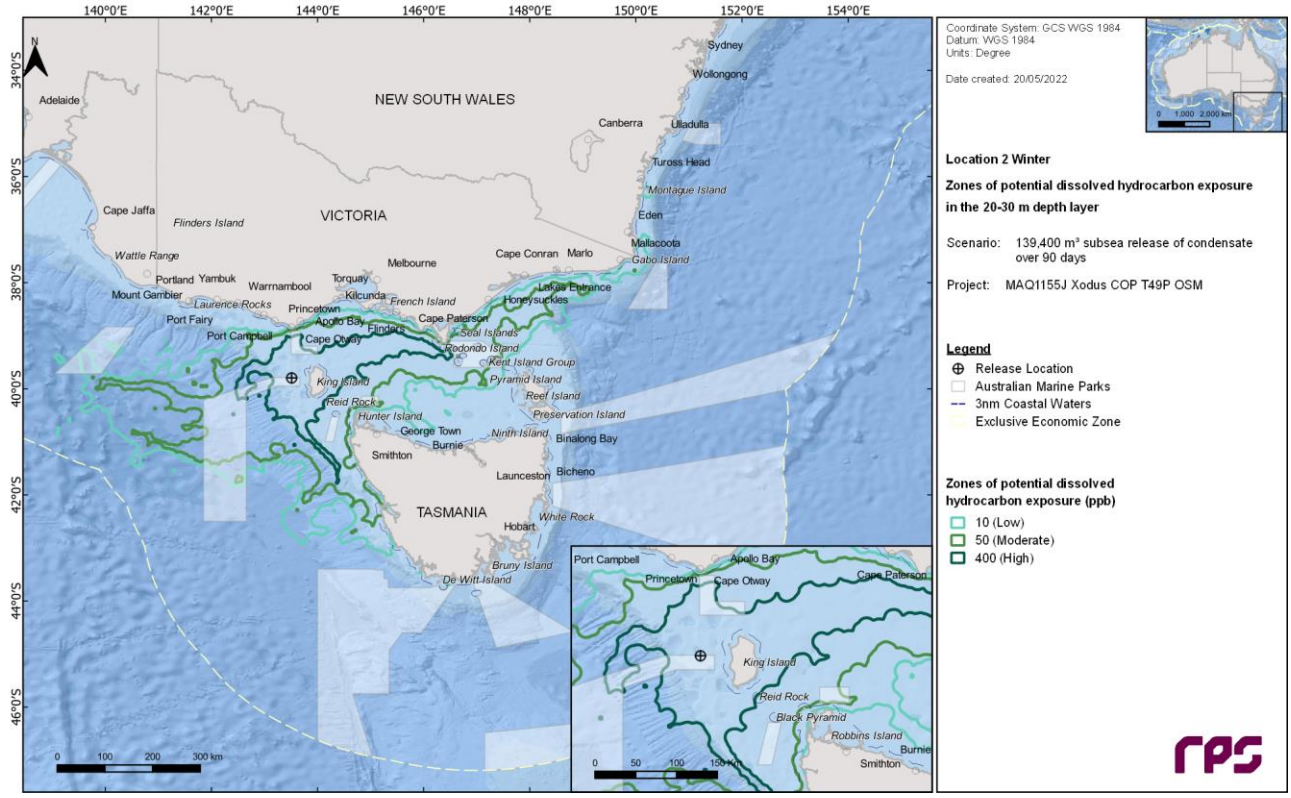


Figure 17.15 Zones of potential dissolved hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

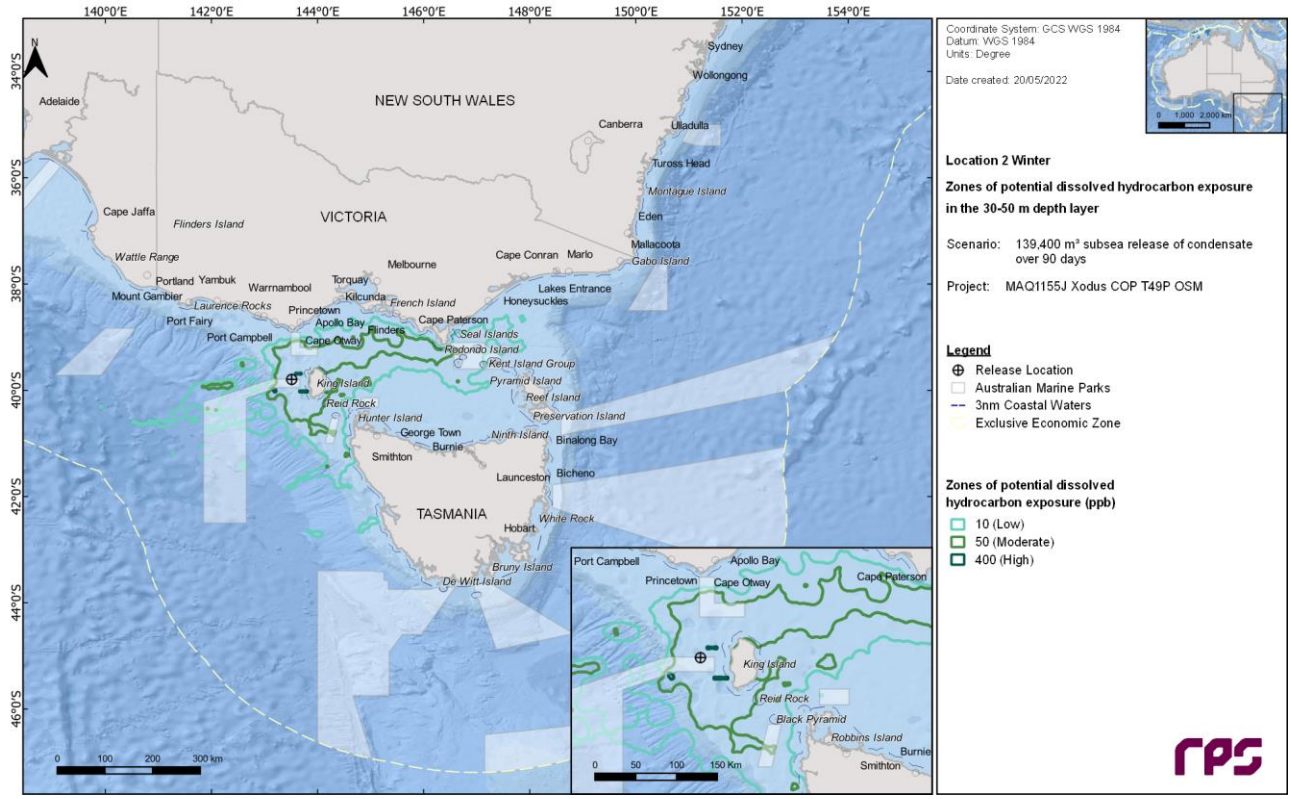


Figure 17.16 Zones of potential dissolved hydrocarbon exposure at 30 - 50 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

17.2.2.2 Entrained Hydrocarbons

Table 17-6 summarises the potential exposure to BIAs from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 17.17 to Figure 17.20 illustrate extent of entrained hydrocarbon exposure for each season in the 10 - 20 m and 20 – 30 m depth layers.

Table 17-6 Probability of entrained hydrocarbons exposure to BIAs in the 0-10 m depth layer from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
BIA	Antipodean Albatross - Foraging	12,031	100	100	12,738	100	100
	Australasian Gannet - Foraging	874	100	85	1,229	100	98
	Black Petrel - Foraging	25	4	-	28	15	-
	Black-browed Albatross - Foraging	12,031	100	100	12,738	100	100
	Black-faced Cormorant - Foraging	3,844	100	100	2,664	100	100
	Bullers Albatross - Foraging	12,031	100	100	12,738	100	100
	Campbell Albatross - Foraging	12,031	100	100	12,738	100	100
	Common Diving-petrel - Foraging	12,031	100	100	12,738	100	100
	Crested Tern - Breeding	14	3	-	21	17	-
	Crested Tern - Foraging	20	3	-	28	16	-
	Flesh-footed Shearwater - Foraging	25	4	-	28	15	-
	Great-winged Petrel - Foraging	24	4	-	28	12	-
	Grey Nurse Shark - Foraging	33	15	-	29	29	-
	Grey Nurse Shark - Migration	40	14	-	38	31	-
	Humpback Whale - Foraging	40	15	-	39	34	-
	Indian Yellow-nosed Albatross - Foraging	12,031	100	100	12,738	100	100
	Indo-Pacific/Spotted Bottlenose Dolphin - Breeding	29	16	-	30	26	-
	Little Penguin - Breeding	182	49	5	142	85	2
	Little Penguin - Foraging	3,318	100	100	2,623	100	100
	Northern Giant Petrel - Foraging	24	4	-	28	12	-
	Pygmy Blue Whale - Distribution	12,031	100	100	12,738	100	100
	Pygmy Blue Whale - Foraging	12,031	100	100	12,738	100	100
	Short-tailed Shearwater - Breeding	747	100	90	802	100	100
	Short-tailed Shearwater - Foraging	12,031	100	100	12,738	100	100
	Shy Albatross - Foraging	12,031	100	100	12,738	100	100
	Soft-plumaged Petrel - Foraging	156	74	8	167	40	11
	Sooty Shearwater - Foraging	40	29	-	110	27	1
	Southern Giant Petrel - Foraging	24	4	-	28	12	0
	Southern Right Whale - Aggregation	83	8	-	94	4	0

Southern Right Whale - Connecting Habitat	2,694	100	100	2,939	100	100
Southern Right Whale - Migration	12,031	100	100	12,738	100	100
Wandering Albatross - Foraging	12,031	100	100	12,738	100	100
Wedge-tailed Shearwater - Foraging	12,031	100	100	12,738	100	100
White Shark - Breeding	54	19	-	90	48	-
White Shark - Distribution	12,031	100	100	12,738	100	100
White Shark - Foraging	2,694	100	100	2,270	100	100
White-capped Albatross - Foraging	24	4	-	28	12	-
White-faced Storm-petrel - Breeding	30	13	-	32	22	-
White-faced Storm-petrel - Foraging	2,694	100	100	2,939	100	100
White-fronted Tern - Foraging	30	5	-	25	2	-
Wilsons Storm Petrel - Migration	24	4	-	28	12	-

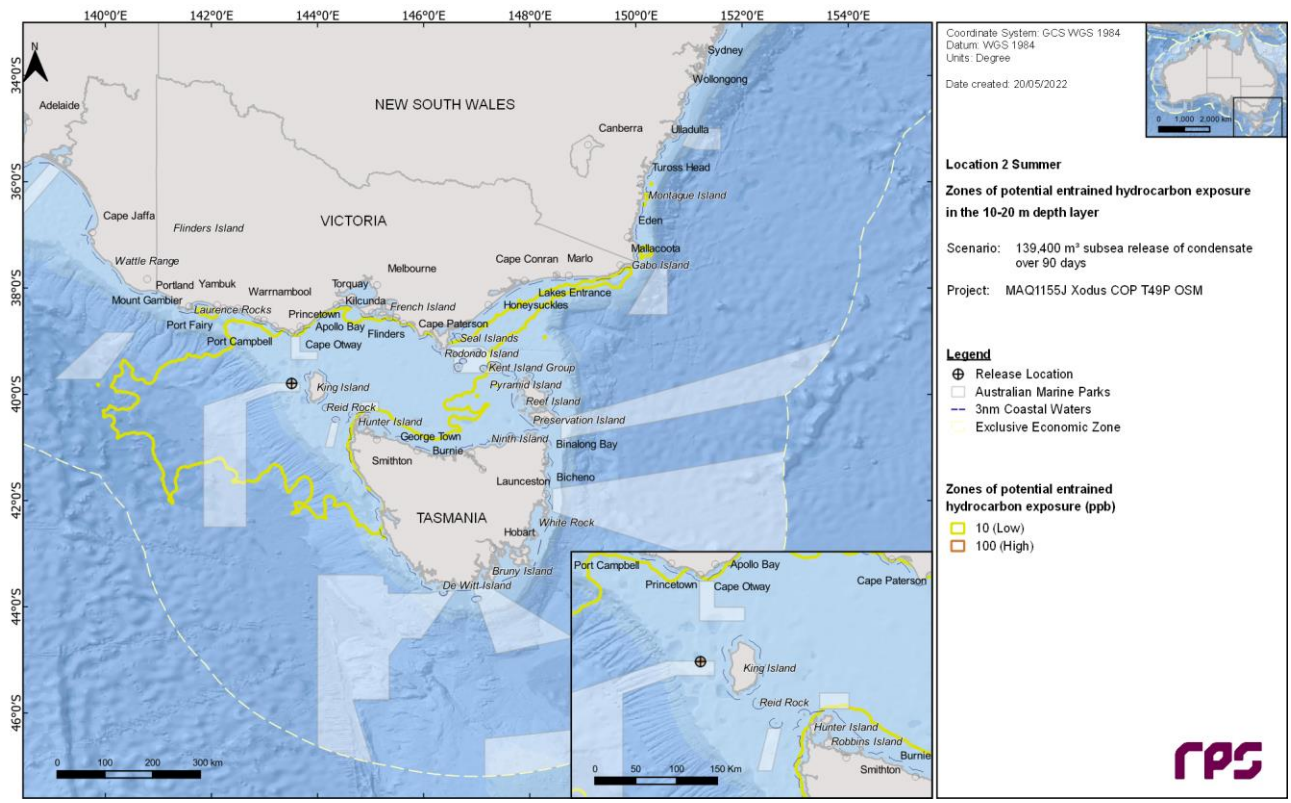


Figure 17.17 Zones of potential entrained hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

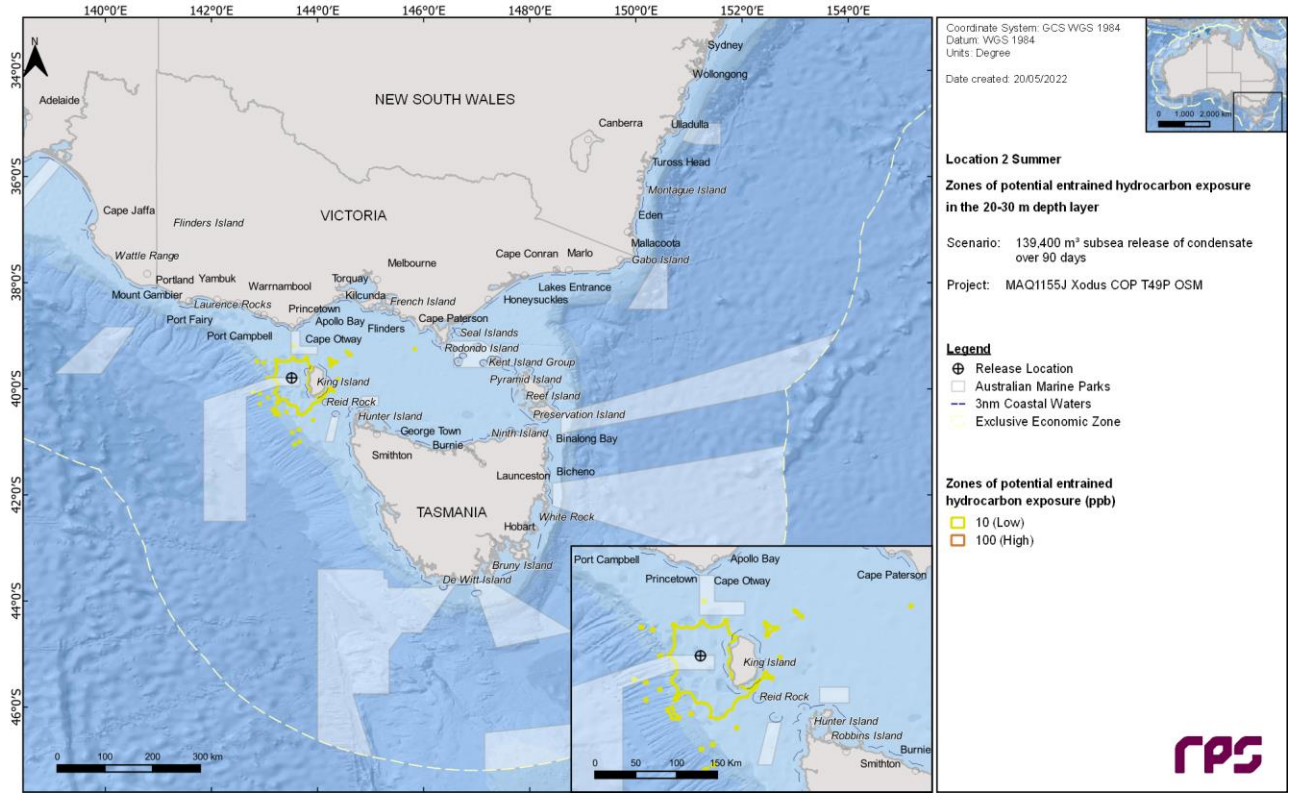


Figure 17.18 Zones of potential entrained hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

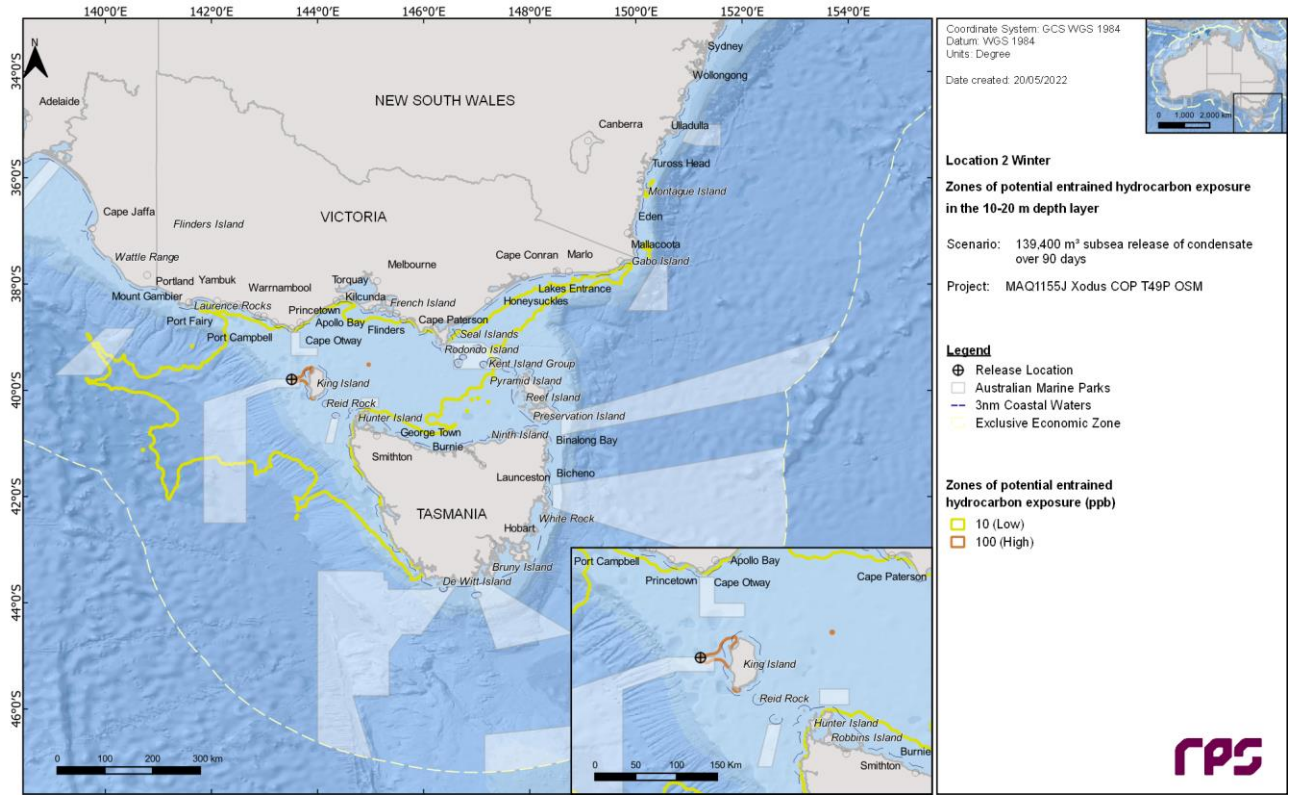


Figure 17.19 Zones of potential entrained hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

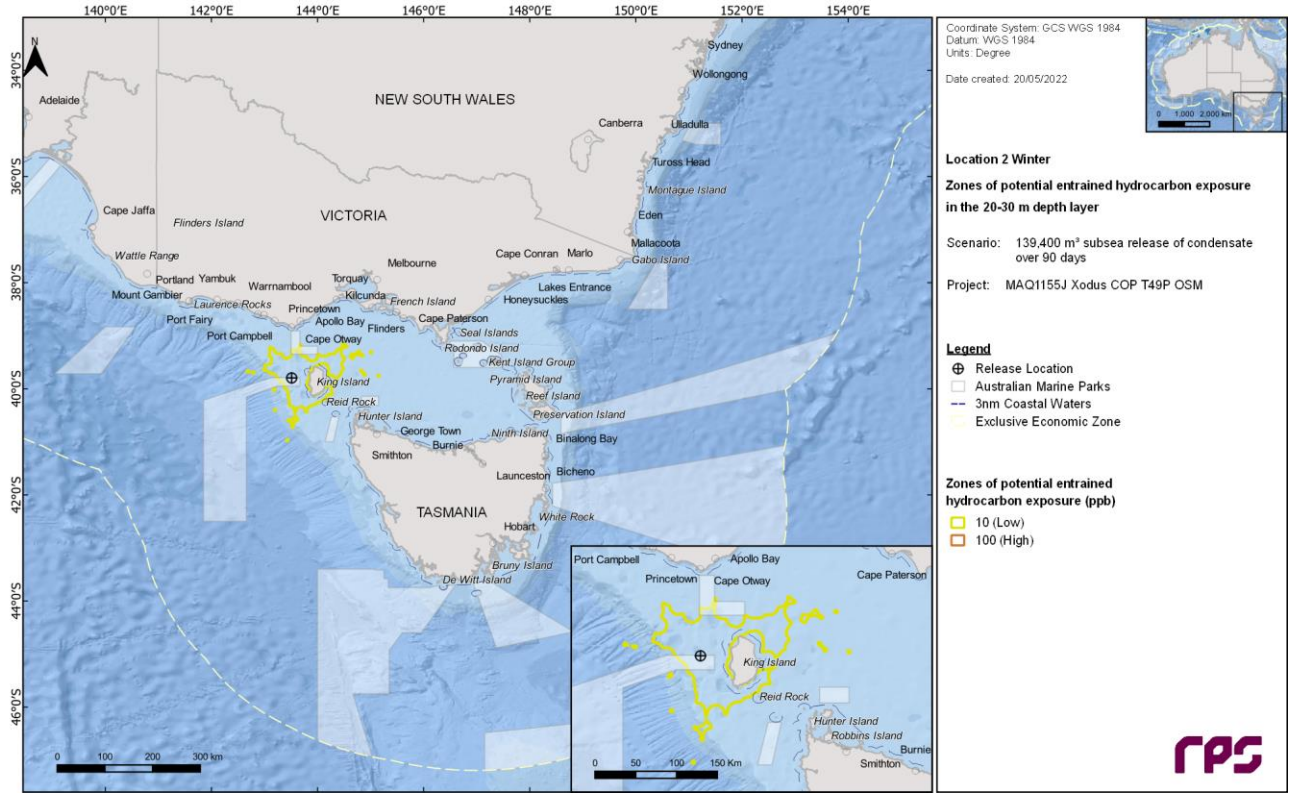


Figure 17.20 Zones of potential entrained hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

17.3 Location 3

17.3.1 Floating Oil Exposure

Table 17-7 summarises the potential floating oil exposure to BIAs for each season.

Table 17-7 Summary of the potential exposure by floating oil to BIAs from a subsea LOWC at Location 3 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
BIA	Antipodean Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Australasian Gannet - Foraging	74	-	-	2.29	-	-	98	-	-	1.63	-	-
	Black-browed Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Black-faced Cormorant - Foraging	23	-	-	6.63	-	-	33	-	-	5.17	-	-
	Bullers Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Campbell Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Common Diving-petrel - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Indian Yellow-nosed Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Little Penguin - Foraging	21	-	-	18.25	-	-	57	-	-	2.04	-	-
	Pygmy Blue Whale - Distribution	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Pygmy Blue Whale - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Short-tailed Shearwater - Breeding	-	-	-	-	-	-	-	-	-	-	-	-
	Short-tailed Shearwater - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Shy Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
	Soft-plumaged Petrel - Foraging	-	-	-	-	-	-	-	-	-	-	-	-
	Sooty Shearwater - Foraging	-	-	-	-	-	-	-	-	-	-	-	-
	Southern Right Whale - Connecting Habitat	72	-	-	2.13	-	-	97	-	-	1.58	-	-

Southern Right Whale - Migration	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
Wandering Albatross - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
Wedge-tailed Shearwater - Foraging	77	-	-	0.96	-	-	77	-	-	0.92	-	-
White Shark - Distribution	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67
White Shark - Foraging	99	-	-	1.29	-	-	100	-	-	1.17	-	-
White-faced Storm-petrel - Foraging	100	100	14	0.04	0.04	2.25	100	100	9	0.04	0.04	13.67

17.3.2 In-water exposure

17.3.2.1 Dissolved Hydrocarbons

Table 17-8 summarises the potential exposure to BIAs from dissolved hydrocarbons in the 0 – 10 m depth layer for each threshold and season.

Figure 17.21 to Figure 17.26 illustrate the extent of dissolved hydrocarbon exposure in the 10-20 m, 20 – 30 m and 30 – 50 m depth layers for each season.

Table 17-8 Probability of dissolved hydrocarbons exposure to BIAs in the 0-10 m depth layer from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
BIA	Antipodean Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
	Australasian Gannet - Foraging	3,228	100	100	46	3,446	100	100	66
	Black Petrel - Foraging	1	-	-	-	40	1	-	-
	Black-browed Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
	Black-faced Cormorant - Foraging	1,423	95	69	8	1,355	100	96	13
	Bullers Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
	Campbell Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
	Common Diving-petrel - Foraging	6,534	100	100	100	8,039	100	100	100
	Crested Tern - Breeding	2	-	-	-	19	1	-	-
	Crested Tern - Foraging	1	-	-	-	40	2	-	-
	Flesh-footed Shearwater - Foraging	1	-	-	-	40	1	-	-
	Grey Nurse Shark - Foraging	6	-	-	-	27	2	-	-
	Grey Nurse Shark - Migration	6	-	-	-	41	2	-	-
	Humpback Whale - Foraging	9	-	-	-	41	2	-	-
	Indian Yellow-nosed Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
	Indo-Pacific/Spotted Bottlenose Dolphin - Breeding	12	1	-	-	23	2	-	-
	Little Penguin - Breeding	131	11	2	0	109	27	6	0

Little Penguin - Foraging	1,237	99	82	8	1,961	100	99	22
Pygmy Blue Whale - Distribution	5,914	100	100	100	8,039	100	100	100
Pygmy Blue Whale - Foraging	6,534	100	100	100	8,039	100	100	100
Short-tailed Shearwater - Breeding	234	31	6	-	196	45	13	-
Short-tailed Shearwater - Foraging	6,534	100	100	100	8,039	100	100	100
Shy Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
Soft-plumaged Petrel - Foraging	863	74	29	2	561	50	20	1
Sooty Shearwater - Foraging	157	10	2	-	162	11	2	0
Southern Right Whale - Breeding	14	1	-	-	-	-	-	-
Southern Right Whale - Connecting Habitat	2,466	100	99	38	2,833	100	100	58
Southern Right Whale - Migration	5,914	100	100	100	8,039	100	100	100
Wandering Albatross - Foraging	6,534	100	100	100	8,039	100	100	100
Wedge-tailed Shearwater - Foraging	3,764	84	83	48	3,213	93	69	45
White Shark - Breeding	53	4	1	-	72	6	1	-
White Shark - Distribution	6,534	100	100	100	8,039	100	100	100
White Shark - Foraging	3,102	100	100	78	4,030	100	100	90
White-faced Storm-petrel - Breeding	6	-	-	-	41	2	-	-
White-faced Storm-petrel - Foraging	5,914	100	100	100	8,039	100	100	100

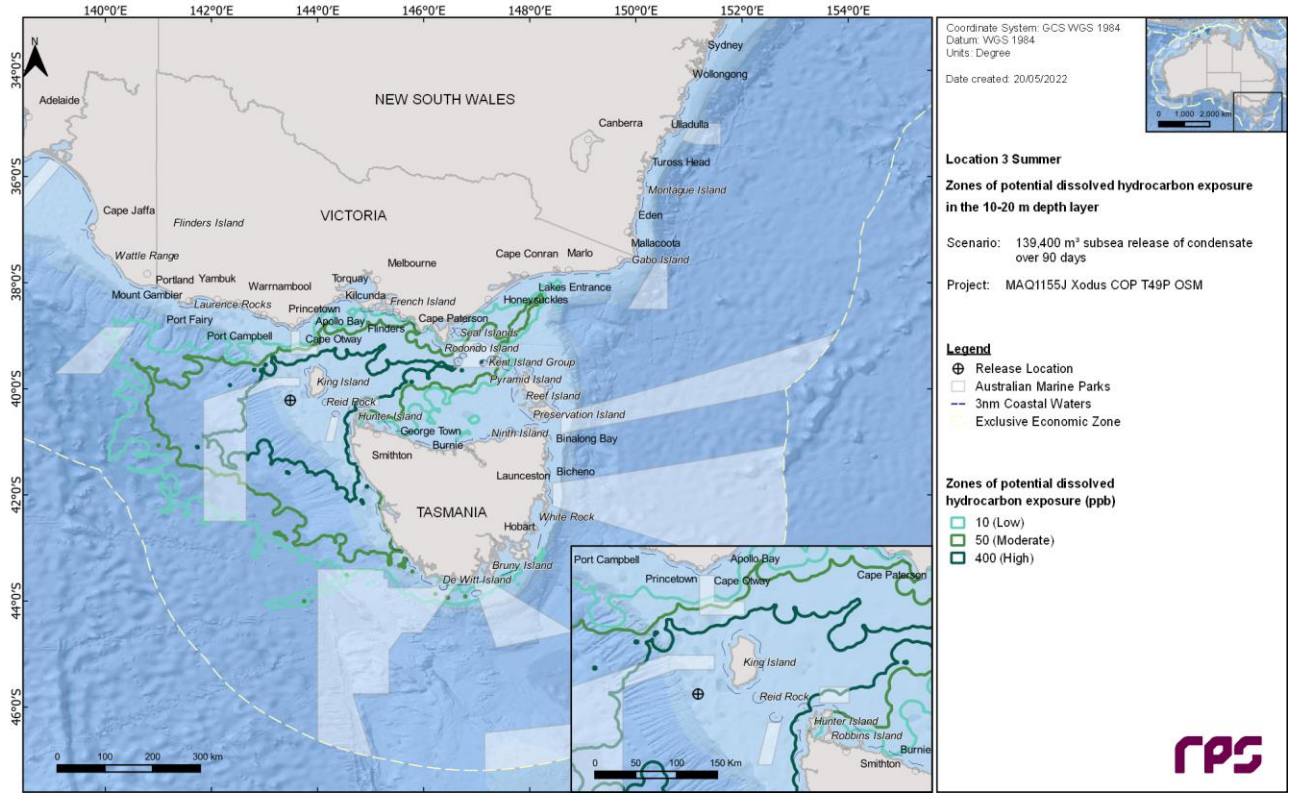


Figure 17.21 Zones of potential dissolved hydrocarbon exposure at 10-20 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

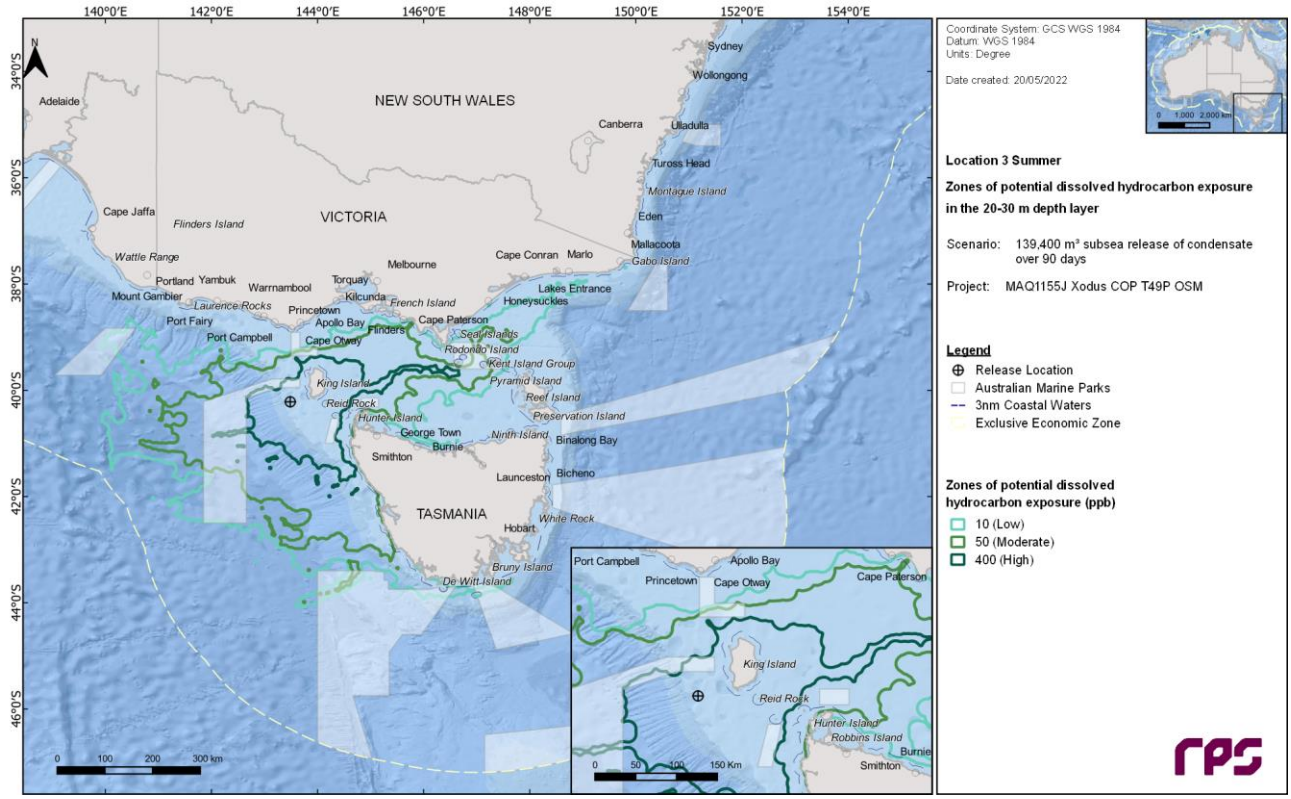


Figure 17.22 Zones of potential dissolved hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

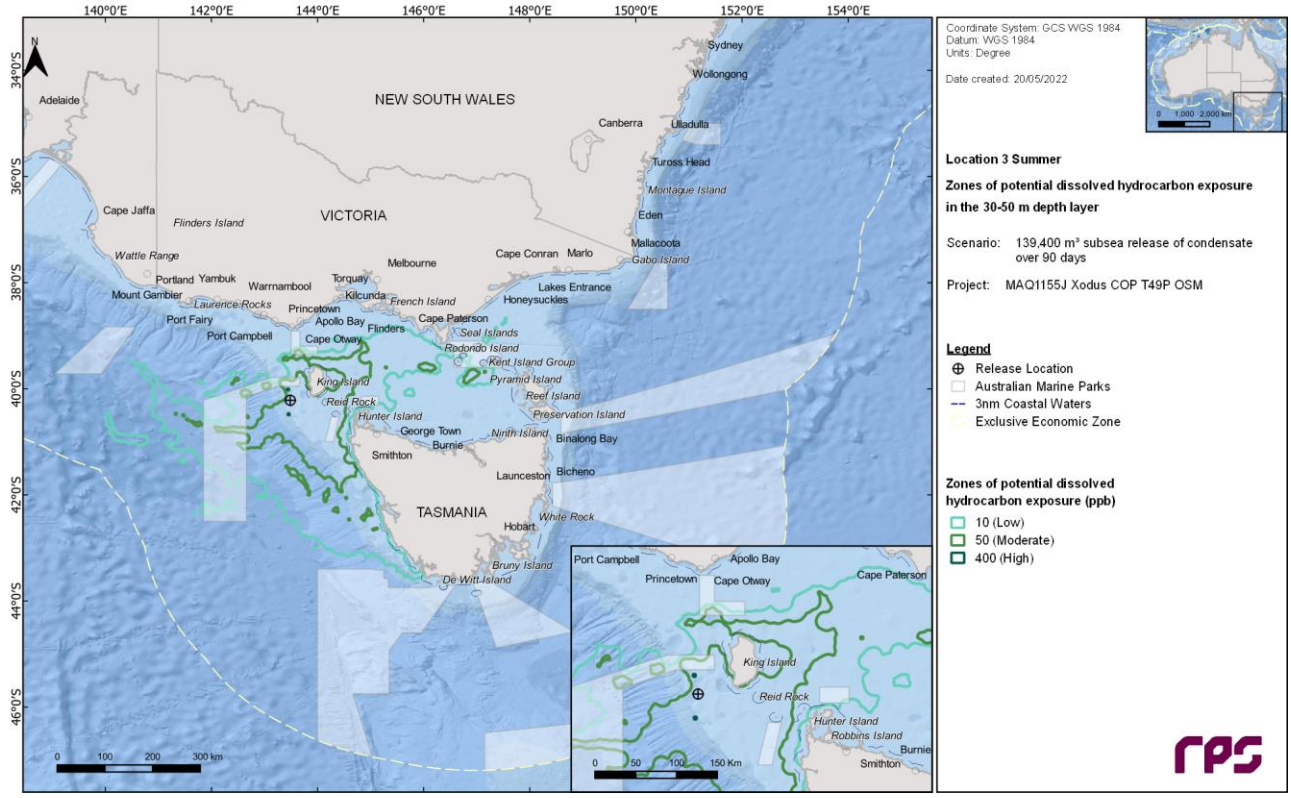


Figure 17.23 Zones of potential dissolved hydrocarbon exposure at 30 - 50 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

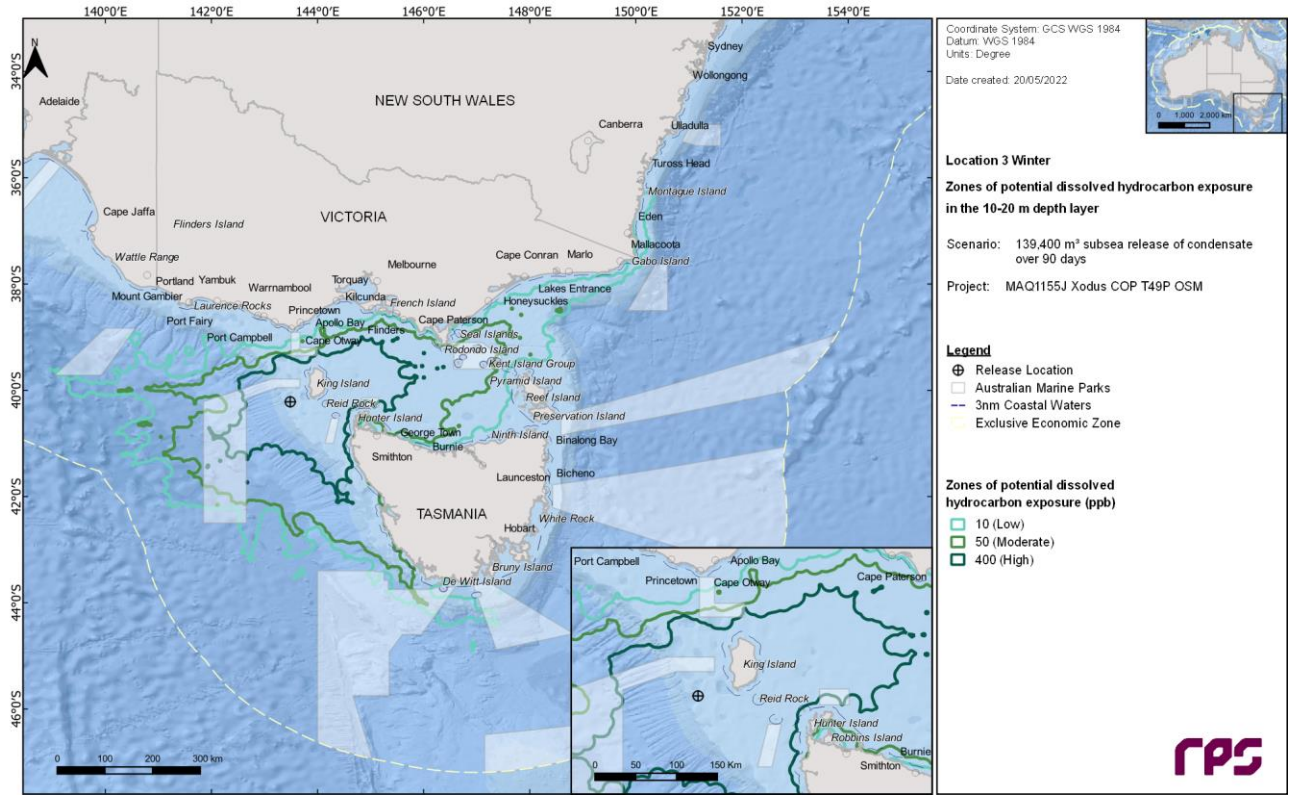


Figure 17.24 Zones of potential dissolved hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

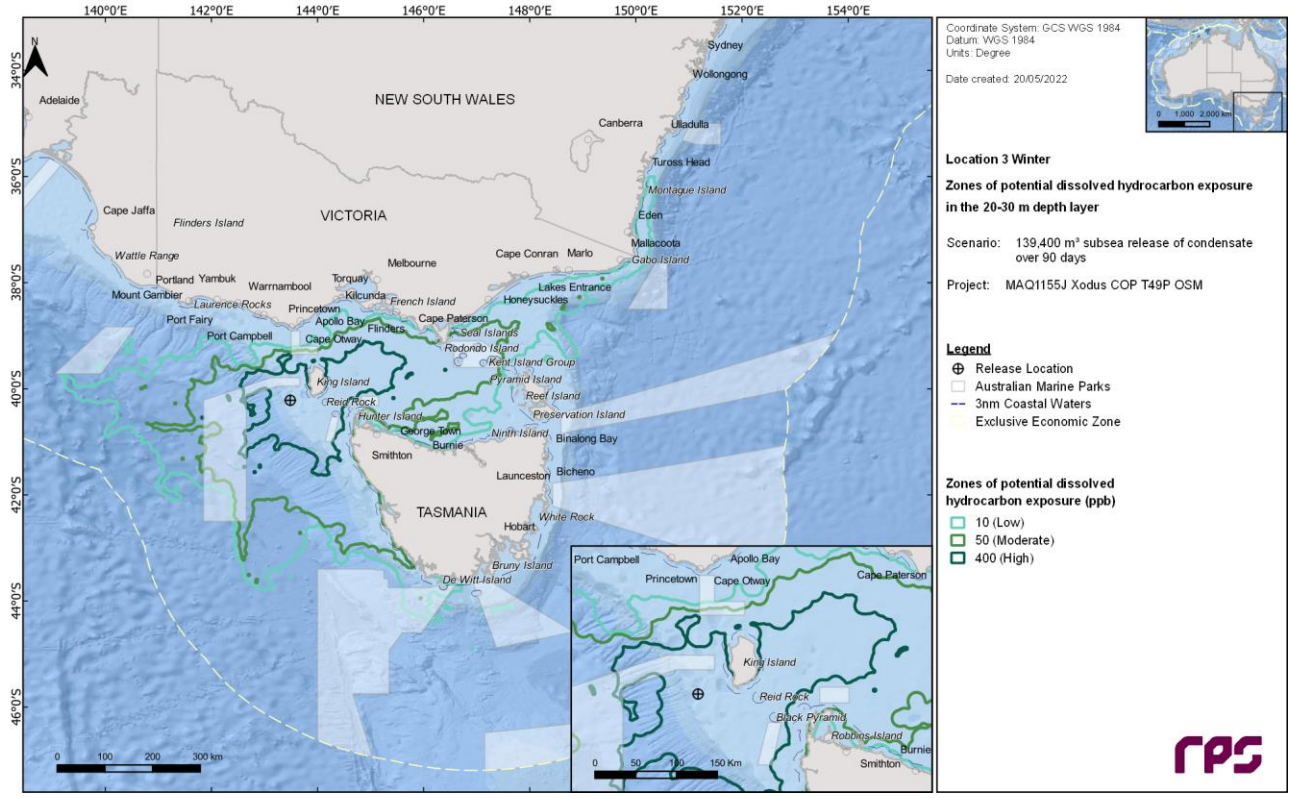


Figure 17.25 Zones of potential dissolved hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

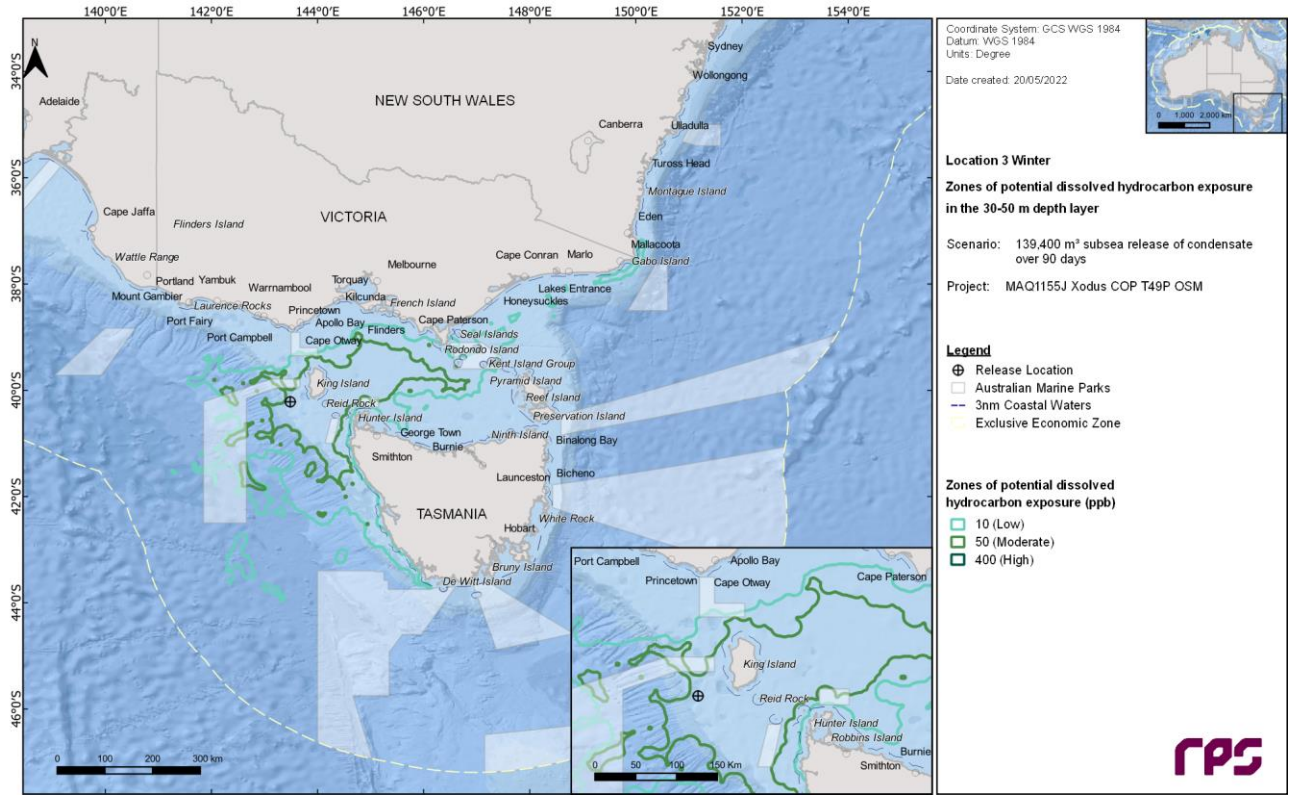


Figure 17.26 Zones of potential dissolved hydrocarbon exposure at 30 - 50 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

17.3.2.2 Entrained Hydrocarbons

Table 17-9 summarises the potential exposure to BIAs from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 17.27 to Figure 17.30 illustrate extent of entrained hydrocarbon exposure for each season in the 10 - 20 m and 20 – 30 m depth layers.

Table 17-9 Probability of entrained hydrocarbons exposure to BIAs in the 0-10 m depth layer from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
BIA	Antipodean Albatross - Foraging	13,383	100	100	11,498	100	100
	Australasian Gannet - Foraging	1,109	100	100	1,158	100	100
	Black Petrel - Foraging	14	1	-	21	8	-
	Black-browed Albatross - Foraging	13,383	100	100	11,498	100	100
	Black-faced Cormorant - Foraging	733	100	66	613	100	70
	Bullers Albatross - Foraging	13,383	100	100	11,498	100	100
	Campbell Albatross - Foraging	13,383	100	100	11,498	100	100
	Common Diving-petrel - Foraging	13,383	100	100	11,498	100	100
	Crested Tern - Breeding	12	1	-	19	7	-
	Crested Tern - Foraging	14	1	-	21	8	-
	Flesh-footed Shearwater - Foraging	14	1	-	21	8	-
	Great-winged Petrel - Foraging	11	1	-	16	3	-
	Grey Nurse Shark - Foraging	18	4	-	35	23	-
	Grey Nurse Shark - Migration	29	6	-	37	25	-
	Humpback Whale - Foraging	29	8	-	37	28	-
	Indian Yellow-nosed Albatross - Foraging	13,383	100	100	11,498	100	100
	Indo-Pacific/Spotted Bottlenose Dolphin - Breeding	12	1	-	23	19	-
	Little Penguin - Breeding	131	78	4	125	85	5
	Little Penguin - Foraging	733	100	94	679	100	100
	Northern Giant Petrel - Foraging	11	1	-	16	3	-
	Pygmy Blue Whale - Distribution	13,383	100	100	11,498	100	100
	Pygmy Blue Whale - Foraging	13,383	100	100	11,498	100	100
	Short-tailed Shearwater - Breeding	199	90	22	353	92	34
	Short-tailed Shearwater - Foraging	13,383	100	100	11,498	100	100
	Shy Albatross - Breeding	20	8	-	12	2	-
	Shy Albatross - Foraging	13,383	100	100	11,498	100	100
	Soft-plumaged Petrel - Foraging	408	99	33	412	79	18
	Sooty Shearwater - Foraging	94	55	-	120	49	7
	Southern Giant Petrel - Foraging	11	1	-	16	3	-

Southern Right Whale - Aggregation	26	3	-	29	2	-
Southern Right Whale - Breeding	6	-	-	11	1	-
Southern Right Whale - Connecting Habitat	1,313	100	100	1,650	100	100
Southern Right Whale - Migration	13,383	100	100	11,498	100	100
Wandering Albatross - Foraging	13,383	100	100	11,498	100	100
Wedge-tailed Shearwater - Foraging	1,469	94	85	2,042	99	73
White Shark - Breeding	46	23	0	58	38	0
White Shark - Distribution	13,383	100	100	11,498	100	100
White Shark - Foraging	1,530	100	100	1,590	100	100
White-capped Albatross - Foraging	11	1	-	16	3	-
White-faced Storm-petrel - Breeding	21	4	-	26	17	-
White-faced Storm-petrel - Foraging	13,383	100	100	11,244	100	100
White-fronted Tern - Foraging	27	2	-	33	25	-
Wilsons Storm Petrel - Migration	11	1	-	16	3	-

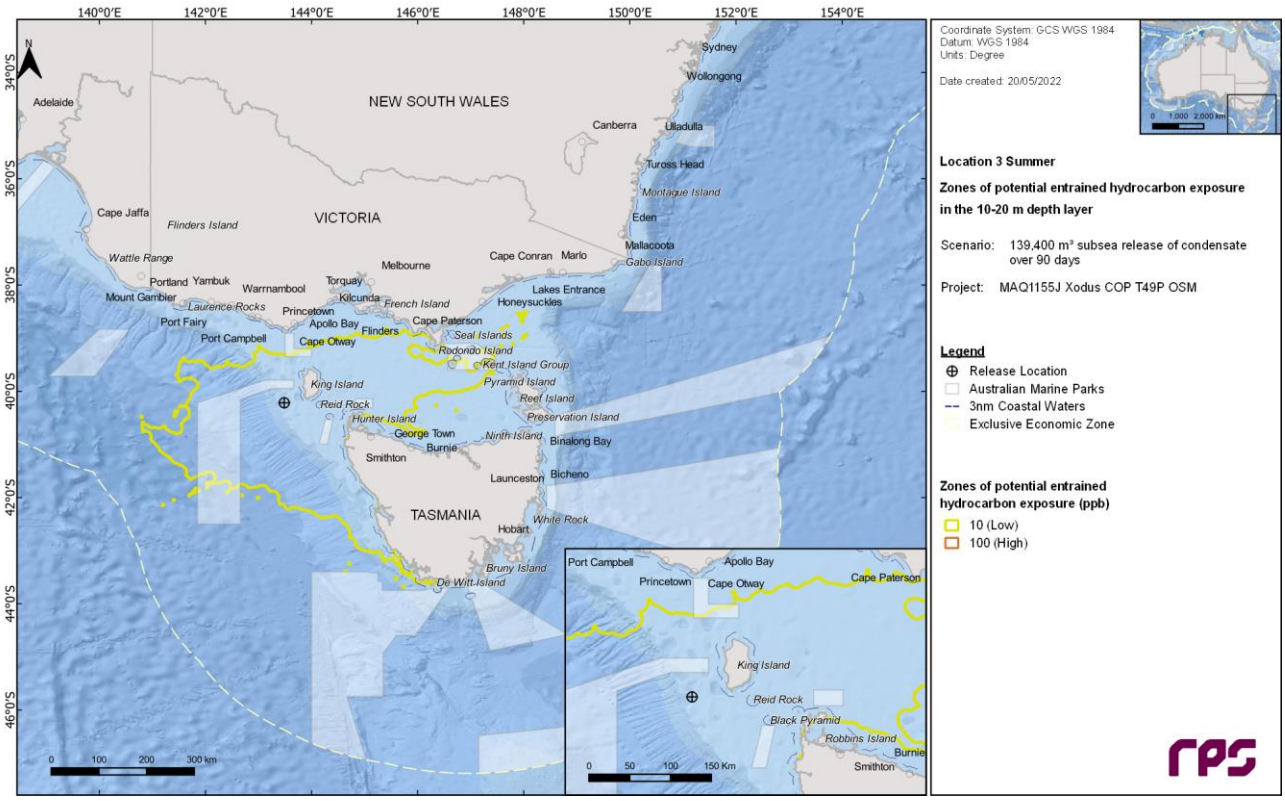


Figure 17.27 Zones of potential entrained hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

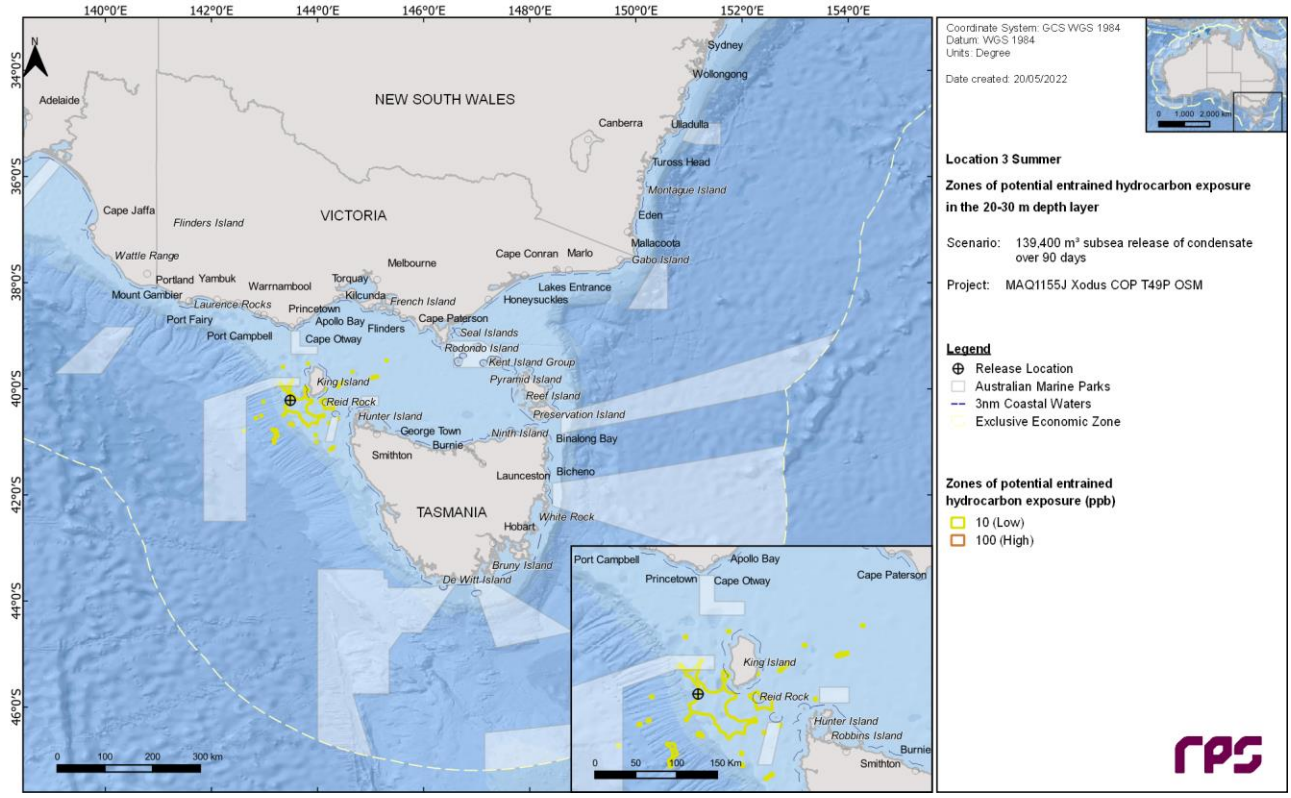


Figure 17.28 Zones of potential entrained hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

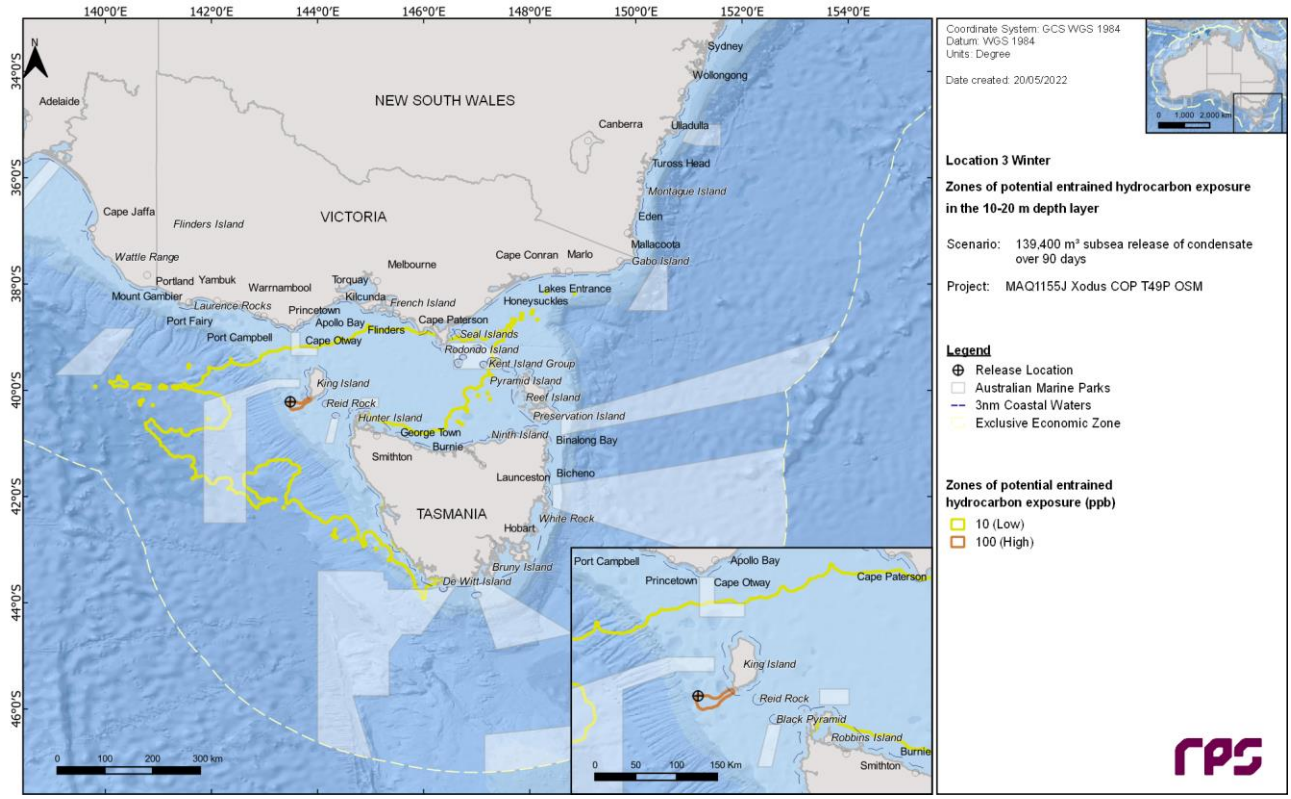


Figure 17.29 Zones of potential entrained hydrocarbon exposure at 10 - 20 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

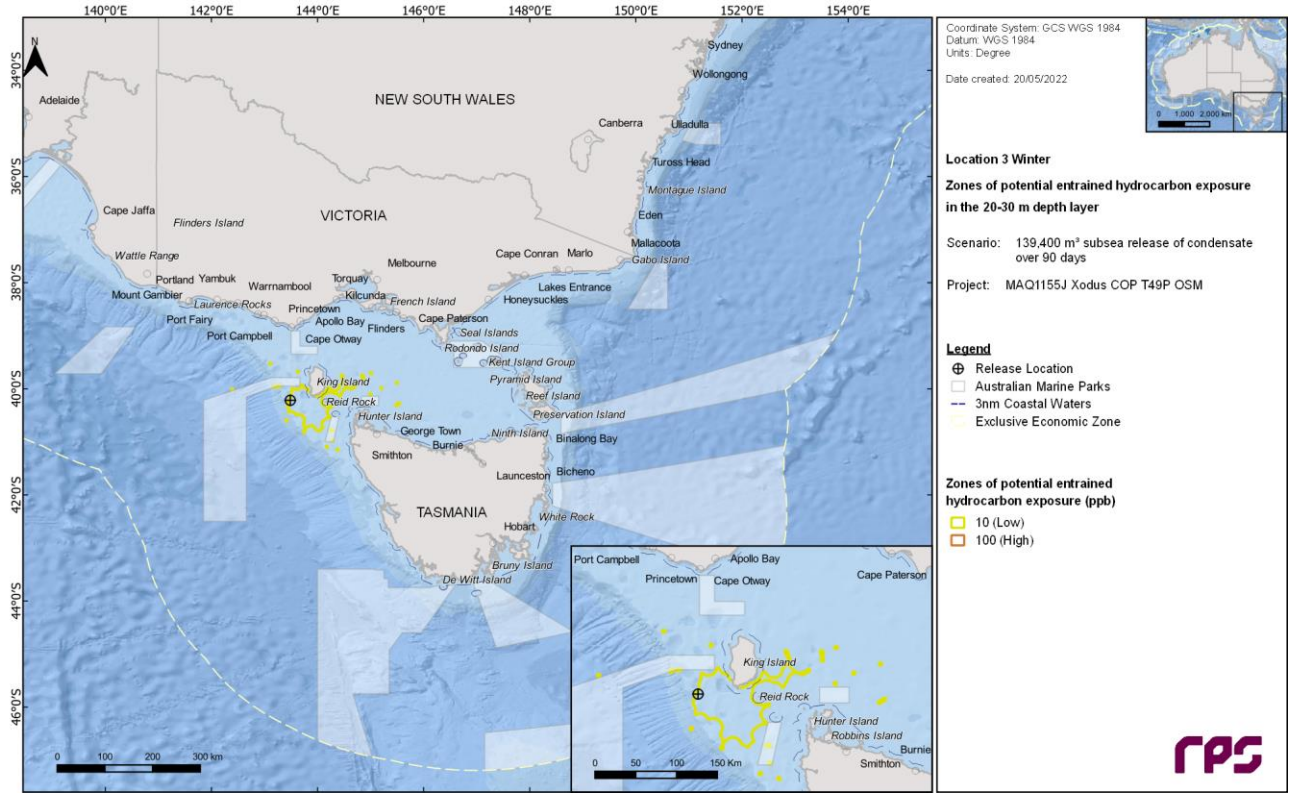


Figure 17.30 Zones of potential entrained hydrocarbon exposure at 20 - 30 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

CONOCOPHILLIPS EXPLORATION PERMIT VIC/P79 OIL SPILL MODELLING

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TERMS AND ABBREVIATIONS

Actionable oil	Oil which is thick enough for the effective use of mitigation strategies
AMSA	Australian Maritime Safety Authority
API	American Petroleum Institute gravity. A measure of how heavy or light a petroleum liquid is compared to water.
Bonn Agreement	An agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances, 1983, includes: Governments of the Kingdom of Belgium, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Republic of Ireland, the Kingdom of the Netherlands, the Kingdom of Norway, the Kingdom of Sweden, the United Kingdom of Great Britain and Northern Ireland and the European Union.
BP	Boiling point. The temperature at which the vapor pressure of the liquid is equal to the pressure exerted on it by the surrounding atmosphere
BTEX	Benzene, toluene, ethylbenzene, and xylenes
Decay	The process where oil components are changed either chemically or biologically (biodegradation) to another compound. It includes breakdown to simpler organic carbon compounds by bacteria and other organisms, photo-oxidation by solar energy, and other chemical reactions.
Deterministic (single) spill modelling	Oil spill modelling involving a computer simulation of a single hypothetical oil spill event subject to a single sequence of wind, current and other sea conditions over time. Single oil spill modelling, also referred to as “deterministic modelling” provides a simulation of one possible outcome of a given spill scenario, subject to the metocean conditions that are imposed. Single oil spill modelling is commonly used to consider the fate and effects of ‘worst-case’ oil spill scenarios that are carefully selected in consideration of the nature and scale of the offshore petroleum activity and the local environment (NOPSEMA, 2017). Because the outcomes of a single oil spill simulation can only represent the outcome of that scenario under one sequence of metocean conditions, worst-case conditions are often identified from stochastic modelling. It is impossible to calculate the likelihood of any outcome from a single oil spill simulation. Single oil spill modelling is generally used for response planning, preparedness planning and for supporting oil spill response operations in the event of an actual spill
Dynamic viscosity	The dynamic viscosity of a fluid expresses its resistance to shearing flows, where adjacent layers move parallel to each other with different speeds.
Floating oil exposure	Contact by floating oil on the sea surface at concentrations equal to or exceeding defined threshold concentrations. The consequence will vary depending on the threshold and the receptors
GODAE	Global Ocean Data Assimilation Experiment
HYCOM	Hybrid Coordinate Ocean Model. A data-assimilative, three-dimensional ocean model
HYDROMAP	Advanced ocean/coastal tidal model used to predict tidal water levels, current speed and current direction.
ITOPF	International Tanker Owners Pollution Federation Limited
MAHs	Monoaromatic hydrocarbons
MMA	Marine Management Area
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
PAH	Polynuclear aromatic hydrocarbons
Pour point	The pour point of a liquid is the temperature below which the liquid loses its flow characteristics
Ramsar site	A site listed under the Ramsar Convention on wetlands which is an international intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.

Shoreline accumulation	Arrival of oil at or near shorelines at on-water concentrations equal to or exceeding defined threshold concentrations. Shoreline contact is judged for floating oil arriving within a 2 km buffer zone from any shoreline as a conservative measure
SIMAP	Spill Impact Model Application Package. SIMAP is designed to simulate the fate and effects of spilled hydrocarbons for surface or subsea releases
Stochastic (multiple) spill modelling	Stochastic oil spill modelling is created by overlaying and statistically analysing the outcomes of many single oil-spill simulations of a defined spill scenario, where each simulation was subject to a different sequence of metocean conditions, selected objectively (typically by random selection) from a long sequence of historic conditions for the study area. Analysis of this larger set of simulations provides a more accurate indication of the environment that maybe affected (EMBA) and indicates which locations are more likely to be affected (as well as other statistics). Stochastic oil spill modelling avoids biases that affect single oil spill modelling (due to the reliance on only one possible sequence of conditions). However, when interpreting stochastic modelling, which is based on a wide range of potential conditions that might happen to occur, it is essential to understand that calculations will encompass a much larger area than could be affected in any single spill event, where a more limited set of conditions will occur. Consequently, it is misleading to imply that the region derived from stochastic modelling indicate the outcomes expected from a single spill event (NOPSEMA, 2017) Stochastic modelling is generally used for risk assessment and preparedness planning by indicating locations that could be exposed and may require response or subsequent impact assessment
World Ocean Atlas	A collection of objectively analysed quality controlled physicochemical parameters (e.g., temperature, salinity, oxygen, phosphate, silicate, and nitrate) based on profile data from the World Ocean Database established by NOAA's National Centers for Environmental Information (NCEI)

EXECUTIVE SUMMARY

Background

ConocoPhillips Australia SH1 Pty Ltd (ConocoPhillips) is considering an exploration drilling campaign in Permit VIC/P79 in the Otway Basin. To support environmental approvals, an oil spill modelling study was undertaken to assess the potential exposure for the following scenarios:

- **Scenario 1** – An uncontrolled subsea loss of well control (LOWC) releasing a total of 139,400 m^3 of condensate over 90 days (1,549 m^3/day); and
- **Scenario 2** – A 350 m^3 release of Marine Diesel Oil (MDO) over 6 hours from a loss of containment following a vessel collision.

Both scenarios were modelled from four worst case target locations due to the extent of the permit area.

The potential exposure to the surrounding waters and shorelines were assessed for summer (October to March) and winter (April to September) seasons.

One of the purposes of the modelling is to define the 'outer boundaries' of the environment that may be affected (EMBA) in the unlikely event of a hydrocarbon release scenario. Therefore, the modelling does not take into consideration any of the spill prevention, mitigation and response capabilities that would be implemented in response to the spill.

The spill modelling was performed using an advanced three-dimensional trajectory and fates model; Spill Impact Model Application Package (SIMAP). The SIMAP model calculates the transport, spreading, entrainment and evaporation of spilled hydrocarbons over time, based on the prevailing wind and current conditions and the physical and chemical properties.

Methodology

The modelling study was carried out in stages. Firstly, a 10-year current dataset (2010 – 2019) that includes the combined influence of large-scale ocean and nearshore tidal currents were prepared. Secondly, the currents, local winds and detailed hydrocarbon characteristics were used as inputs in the three-dimensional oil spill model (SIMAP) to simulate the drift, spread, weathering and fate of the spilled hydrocarbons.

Modelling was conducted using a stochastic approach, which involved running 100 spills for each season, for each scenario and location with each simulation having the same information (i.e., location volume and oil properties) but randomly selected start times to ensure a range of wind and current conditions were assessed. Once all 100 simulations were run for a given scenario and location, the results were combined to determine the seasonal exposure to the surrounding waters, shorelines and sensitive receptors based on the thresholds outlined in the NOPSEMA Oil Spill Modelling Bulletin (NOPSEMA 2019).

Hydrocarbon Properties

Thylacine condensate was used as a proxy for the LOWC scenario (Scenario 1), which has an API of 44.3, a density of 805 kg/m^3 (at 15ºC) and a low viscosity value of 0.875 cP. The volatile to semi-volatile components (boiling point (BP) < 265 °C), which represent approximately 83% of the whole condensate is likely to evaporate over the first day if exposed to the atmosphere at local temperatures, leaving the less volatile portion (16%) to progressively evaporate more slowly. Only 1% of the condensate is considered persistent.

Thylacine condensate is categorised as a Group I oil (non – persistent oil) according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges. The heavier components (i.e., low volatile portion) of the condensate will tend to entrain into the upper water column

during the presence of moderate winds (> 10 knots) and can potentially remain entrained for as long as the winds persist. But can subsequently resurface when the winds ease, and waves abate.

The MDO used as model input for Scenario 2 has a density of 829.1 kg/m^3 (API gravity of 37.6) and a dynamic viscosity of 4.0 cP at 25ºC. The MDO is characterised by a high percentage of volatile components (95%), which will evaporate when on the sea surface. It also contains 5% persistent hydrocarbons, which will not evaporate, though will decay over time. Additionally, the MDO classified as a Group II light persistent oil. It is important to note that some heavy components contained in MDO have a strong tendency to physically entrain into the upper water column in the presence of moderate winds (i.e., >12 knots) and breaking waves, but can re-float to the surface when the winds ease.

Key Findings

Location 1 LOWC

- The maximum distances to the low (1 g/m^2) and moderate (10 g/m^2) floating oil exposure thresholds was 306.7 km (winter) and 11.6 km (summer), respectively. No floating oil exposure at the high (50 g/m^2) threshold was predicted.

- The highest probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) occurred during winter (100%), while the minimum time before shoreline accumulation was 4.08 days also during winter. The maximum volume of oil ashore was predicted during the winter with 51.9 m^3.

- The maximum distances from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 748 km (winter), 625 km (summer) and 367 km (summer), respectively.

- The maximum distances from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 868 km (summer) and 699 km (summer), respectively.

Location 2 LOWC

- The maximum distances of floating oil exposure to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) thresholds was 179.2 km (summer), 11.1 km (summer) and 0.4 km (winter), respectively.

- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was 100% during both summer and winter, while the minimum time before shoreline accumulation at the low threshold was 3.63 days predicted during winter. The maximum total volume of oil ashore was predicted during the winter with 139.7 m^3 (over the duration of the simulation).

- Maximum distances from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 758 km (summer), 584 km (winter) and 338 km (winter), respectively.

- The maximum distances of entrained hydrocarbons to the low (10 ppb) and high (100 ppb) thresholds was 879 km (summer) and 477 km (winter), respectively.

Location 3 LOWC

- The maximum distances to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 175.7 km (winter), 10.1 km (summer and winter) and 0.4 km (summer and winter), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was 100% during summer and winter, while the minimum time before shoreline accumulation at the low threshold was 3.79 days predicted during summer. The maximum volume of oil ashore was predicted during the winter with 140.0 m^3.
- Maximum distances from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 804 km (summer), 451 km (winter) and 319 (summer), respectively.
- The maximum distances on to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 897 km (summer) and 450 km (winter), respectively.

Location 4 LOWC

- The maximum distances from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 363.4 km (winter), 12.3 km (winter) and 0.2 km (summer and winter), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was 100% during summer and winter, while the minimum time before shoreline accumulation was 1.92 days predicted during winter. The maximum volume of oil ashore was predicted during the winter with 318.9 m^3.
- Maximum distances from the release location to the low (10 ppb), moderate (50 ppb) and high (400 ppb) dissolved hydrocarbon exposure thresholds was 686 km (winter), 456 km (summer) and 264 km (summer), respectively.
- The maximum distances from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 902 km (summer) and 426 km (summer), respectively.

Location 1 Vessel Collision

- The maximum distances to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 52.8 km (winter), 15.9 km (winter) and 4.3 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during winter at 29%, while the minimum time before shoreline accumulation was 4.83 days predicted during summer. The maximum volume of oil ashore was predicted during the winter with 16.6 m^3.
- Maximum distances from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 125 km (winter) and 13 km (summer), respectively. No exposure at the high (400 ppb) dissolved hydrocarbon exposure threshold was predicted.
- The maximum distances from the release location to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 700 km (winter) and 158 km (winter), respectively.

Location 2 Vessel Collision

- The maximum distances to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 59.9 km (winter), 21.2 km (summer) and 5.5 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during summer at 45%, while the minimum time before shoreline accumulation occurred 1.83 days after the initial release for a spill during winter. The maximum volume of oil ashore was predicted during the winter with 28.9 m^3.
- Maximum distances from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 159 km (winter) and 6 km (summer and winter), respectively. No exposure at the high (400 ppb) threshold was predicted.
- The maximum distances to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 446 km (winter) and 185 km (winter), respectively.

Location 3 Vessel Collision

- The maximum distances to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 51.8 km (summer), 19.8 km (winter) and 8.0 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during summer at 41%, while the minimum time before accumulation was 3.17 days predicted during winter. The maximum volume of oil ashore was predicted during the winter with 18.0 m^3.
- The maximum distances from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 121 km (winter) and 3 km (summer), respectively. No exposure at the high (400 ppb) threshold was predicted.
- The maximum distances to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 489 km (winter) and 187 km (winter), respectively.

Location 4 Vessel Collision

- The maximum distances from the release location to the low (1 g/m^2), moderate (10 g/m^2) and high (50 g/m^2) floating oil exposure thresholds was 62.3 km (winter), 20.7 km (winter) and 5.7 km (summer), respectively.
- The probability of accumulation on any shoreline at, or above, the low threshold (10 g/m^2) was greatest during summer at 85%, while the minimum time for the accumulation was 1.08 days during winter. The maximum volume of oil ashore was predicted during the winter with 43.0 m^3 (.
- The maximum distances from the release location to the low (10 ppb) and moderate (50 ppb) dissolved hydrocarbon exposure thresholds was 119 km (winter) and 24 km (winter), respectively. No exposure at the high (400 ppb) threshold was predicted.
- The maximum distances to the low (10 ppb) and high (100 ppb) entrained hydrocarbon thresholds was 598 km (winter) and 206 km (winter), respectively.

1 BACKGROUND

1.1 Introduction

ConocoPhillips Australia SH1 Pty Ltd (ConocoPhillips) is considering an exploration drilling campaign in Permit VIC/P79 in the Otway Basin. To support environmental approvals, Xodus on behalf of ConocoPhillips had commissioned RPS to undertake an oil spill modelling study to assess the potential exposure for the following scenarios:

- **Scenario 1** – An uncontrolled subsea loss of well control (LOWC) releasing a total of 139,400 m^3 of condensate over 90 days (1,549 m^3/day); and
- **Scenario 2** – A 350 m^3 release of Marine Diesel Oil (MDO) over 6 hours from a loss of containment following a vessel collision.

Both scenarios were modelled from 4 worst case target locations due to the extent of the permit area, Table 1.1 presents the coordinates of the release locations and Figure 1.1 is the location map.

The potential exposure to the surrounding waters and shorelines were assessed for summer (October to March) and winter (April to September) seasons.

One of the purposes of the modelling is to define the 'outer boundaries' of the environment that may be affected (EMBA) in the unlikely event of a hydrocarbon release scenario. Therefore, the modelling does not take into consideration any of the spill prevention, mitigation and response capabilities that would be implemented in response to the spill.

The spill modelling was performed using an advanced three-dimensional trajectory and fates model; Spill Impact Model Application Package (SIMAP). The SIMAP model calculates the transport, spreading, entrainment and evaporation of spilled hydrocarbons over time, based on the prevailing wind and current conditions and the physical and chemical properties.

The hydrocarbon spill model, the method and analysis applied herein uses modelling algorithms which have been peer reviewed and published in international journals. Further, RPS warrants that this work meets and exceeds the American Society for Testing and Materials (ASTM) Standard F2067-13 "*Standard Practice for Development and Use of Oil Spill Models*".

Table 1.1 VIC/P79 hydrocarbon spill modelling release locations.

Release location	Name	Latitude*	Longitude*	Water depth (m)
Location 1	Essington	39° 5' 17.4" S	142° 48' 23.1" E	93
Location 2	Regia	38° 43' 20.6" S	142° 26' 35.3" E	74
Location 3	Merope	38° 5' 8.9" S	142° 5' 8.9" E	66
Location 4	Julpha	38° 30' 6.4" S	142° 7' 55.5" E	45

*Datum: WGS 1984

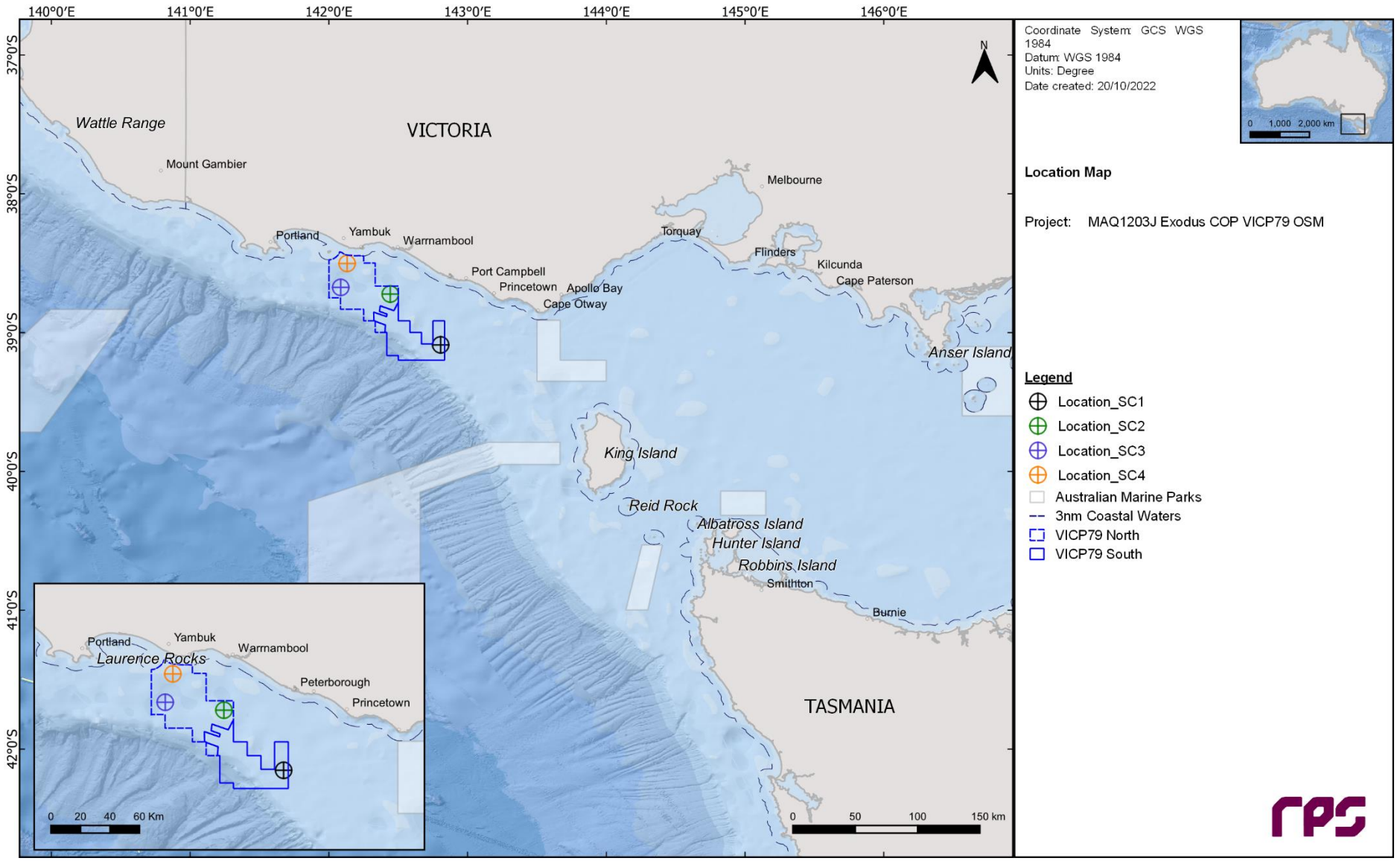


Figure 1.1 VIC/P79 hydrocarbon spill modelling release locations.

1.2 What is Oil Spill Modelling?

Oil spill modelling is a valuable tool widely used for risk assessment, emergency response and contingency planning where it can be particularly helpful to proponents and decision makers. By modelling a series of the most likely oil spill scenarios, decisions concerning suitable response measures and strategic locations for deploying equipment and materials can be made, and the locations at most risk can be identified. The two types of oil spill modelling often used are stochastic (Section 1.2.1) and deterministic (Section 1.2.2) modelling.

1.2.1 Stochastic Modelling (Multiple Spill Simulations)

Stochastic oil spill modelling is created by overlaying a great number (often hundreds) of individual, computer-simulated hypothetical spills (NOPSEMA, 2018; Figure 1.2).

Stochastic modelling is a common means of assessing the potential risks from oil spills related to new projects and facilities. Stochastic modelling typically utilises hydrodynamic data for the location in combination with historic wind data. Typically, 100 iterations of the model will be run utilising the data that is most relevant to the season or timing of the project.

The outcomes are often presented as a probability of exposure and is primarily used for risk assessment purposes in view to understand the range of environments that may be affected or impacted by a spill. Elements of the stochastic modelling can also be used in oil spill preparedness and planning.

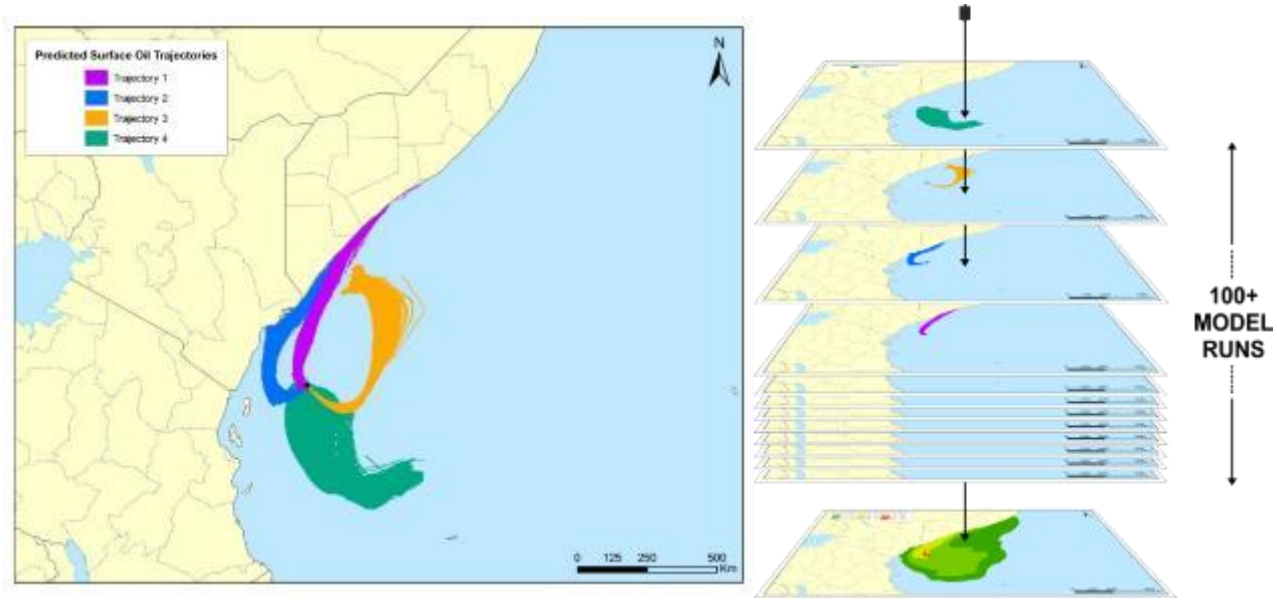


Figure 1.2 Examples of four individual spill trajectories (four replicate simulations) predicted by SIMAP for a spill scenario. The frequency of contact with given locations is used to calculate the probability of impacts during a spill. Essentially, all model runs are overlain (shown as the stacked runs on the right) and the number of times that trajectories contact a given location at a concentration is used to calculate the probability.

1.2.2 Deterministic Modelling (Single Spill Simulation)

Deterministic modelling is the predictive modelling of a single incident subject to a single sample of wind and weather conditions over time (NOPSEMA, 2018; Figure 1.3).

Deterministic modelling is often paired with stochastic modelling to place the large stochastic footprint into perspective. This deterministic analysis is generally a single run selected from the stochastic analysis and serves as the basis for developing the plans and equipment needs for a realistic spill response. Deterministic spills can be selected on based on parameters such as minimum time to shoreline, largest swept area, maximum volume ashore and longest length of shoreline contacted by hydrocarbons.

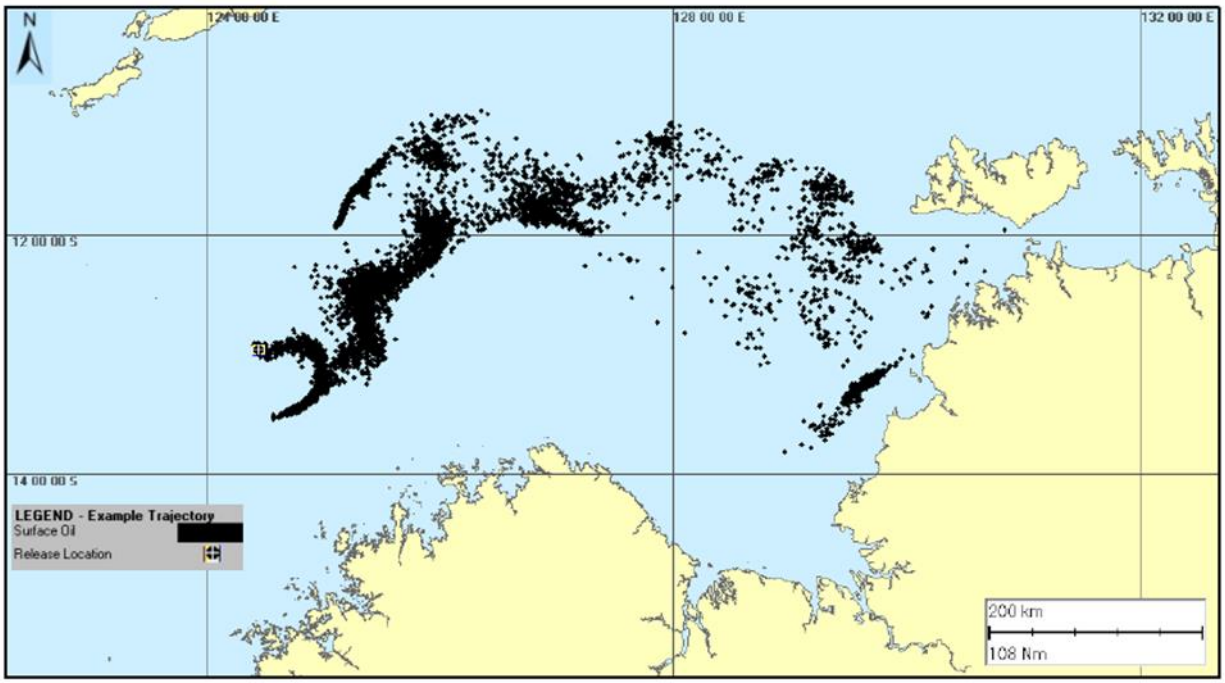


Figure 1.3 Example of an individual spill trajectory predicted by SIMAP for a spill scenario. Note, this image represents surface oil as spill and does not take any thresholds into consideration.

2 SCOPE OF WORK

The scope of work included the following components:

1. Generate 10 years (2010 to 2019 (inclusive)) of wind and current data. The three-dimensional current data includes the combined influence of ocean and tidal currents;
2. Include the wind and current data and the hydrocarbon characteristics as input into the three-dimensional oil spill model, SIMAP, to model the movement, spreading, weathering and shoreline accumulation by hydrocarbons over time;
3. Run 100 oil spill simulations per season (200 total per location for each scenario), with each simulation having the same spill information (i.e., location volume and condensate properties) but varying start times. This ensured that each spill trajectory was subjected to a unique set of wind and current conditions;
4. Combine the results from the 100 spill simulations (per season) per location for each scenario to assess the exposure to waters and shoreline accumulation based upon the NOPSEMA thresholds;
5. Present the combined results from the 200 spill simulations, per location for each scenario, to assess the low threshold environment that maybe affected (EMBA); and
6. From the 200 simulations modelled for each location, identify and present the “worst case” deterministic run resulting in the maximum volume of hydrocarbons ashore. For each scenario and all the deterministic simulations resulting in: a) largest area of floating hydrocarbon exposure; b) minimum time to shoreline exposure; and c) longest length of shoreline accumulation were also identified for each scenario and presented.

3 REGIONAL CURRENTS

The Otway Basin lies within the western portion of the Bass Strait, a sea strait separating Tasmania from the southern Australian mainland. The strait is a relatively shallow area of the continental shelf, connecting the southeast Indian Ocean with the Tasman Sea. This region has a reputation for high winds and strong tidal currents (Jones, 1980). Currents are primarily driven by tides, winds and density driven flows. During winter the South Australian current moves dense, salty water eastward from the Great Australian Bight into the western margin of the Bass Strait (Sandery & Kämpf, 2007). In winter and spring, waters within the strait are well mixed with no obvious stratification, while during summer the central regions of the strait become stratified (Baines & Fandry, 1983; Middleton & Black, 1994).

Figure 3.1 displays seasonal current trends within the Otway Basin-Bass Strait region. During winter there is a strong eastward water flow due to the strengthening of the South Australian Current (fed by the Leeuwin Current in the Northwest Shelf), which bifurcates with one extension moving though the Bass Strait, and another forming the Zeehan Current off western Tasmania (Sandery & Kämpf, 2007). During summer, water flow reverses off Tasmania, King Island and the Otway Basin travelling eastward, as the coastal current develops due to south-easterly winds.

Therefore, to accurately account for the movement of an oil spill, which can move between the offshore and near shore region, ocean and tidal currents were combined as part of the study. The following sections provide a summary of the regional current data set.

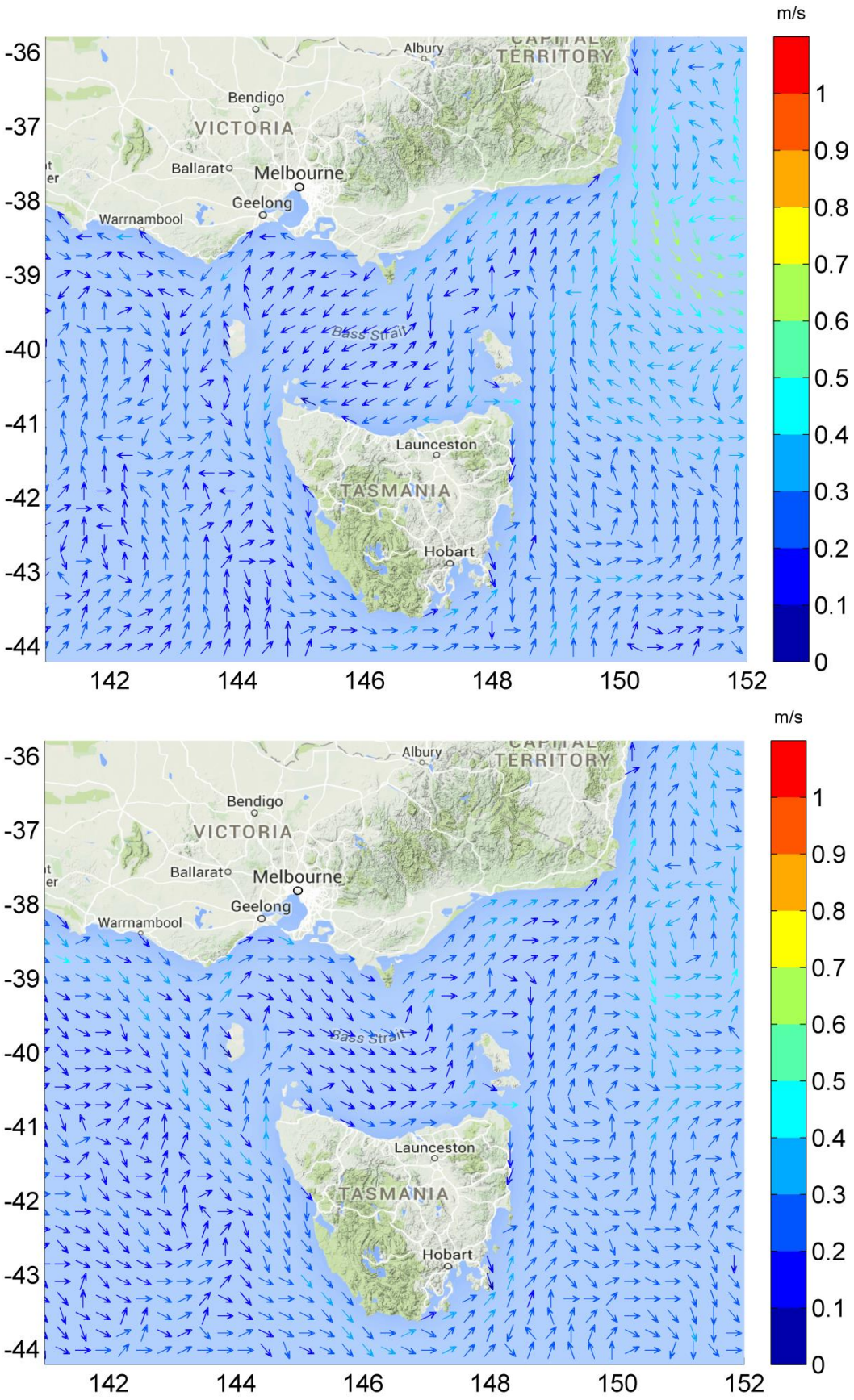


Figure 3.1 HYCOM averaged seasonal surface drift currents during summer (upper image) and winter (lower image).

3.1 Tidal currents

Tidal current data was generated using RPS's advanced ocean/coastal model, HYDROMAP. The HYDROMAP model has been thoroughly tested and verified through field measurements throughout the world for more than 30 years (Isaji & Spaulding, 1984; Isaji, et al., 2001; Zigic, et al., 2003). HYDROMAP tidal current data has been used as input to forecast (in the future) and hindcast (in the past) pollutant spills in Australian waters and forms part of the Australian National Oil Spill Emergency Response System operated by AMSA (Australian Maritime Safety Authority).

HYDROMAP employs a sophisticated sub-gridding strategy, which supports up to six levels of spatial resolution, halving the grid cell size as each level of resolution is employed. The sub-gridding allows for higher resolution of currents within areas of greater bathymetric and coastline complexity, and/or of interest to a study.

The numerical solution methodology follows that of Davies (1977a 1977b) with further developments for model efficiency by Owen (1980) and Gordon (1982). A more detailed presentation of the model can be found in Isaji & Spaulding (1984) and Isaji et al. (2001).

3.1.1 Grid Setup

The tidal model domain has been sub-gridded down to a resolution of 500 m for shallow and coastal regions, starting from an offshore (or deep water) resolution of 8 km. The finer grids were allocated in a step-wise fashion to resolve flows more accurately along the coastline, around islands and over regions with more complex bathymetry. Figure 3.2 shows the tidal model grid covering the study domain.

A combination of datasets was used and merged to describe the shape of the seabed within the grid domain (Figure 3.3). These included spot depths and contours which were digitised from nautical charts released by the hydrographic offices as well as Geoscience Australia database and depths extracted from the Shuttle Radar Topography Mission (SRTM30_PLUS) Plus dataset (see Becker et al., 2009).

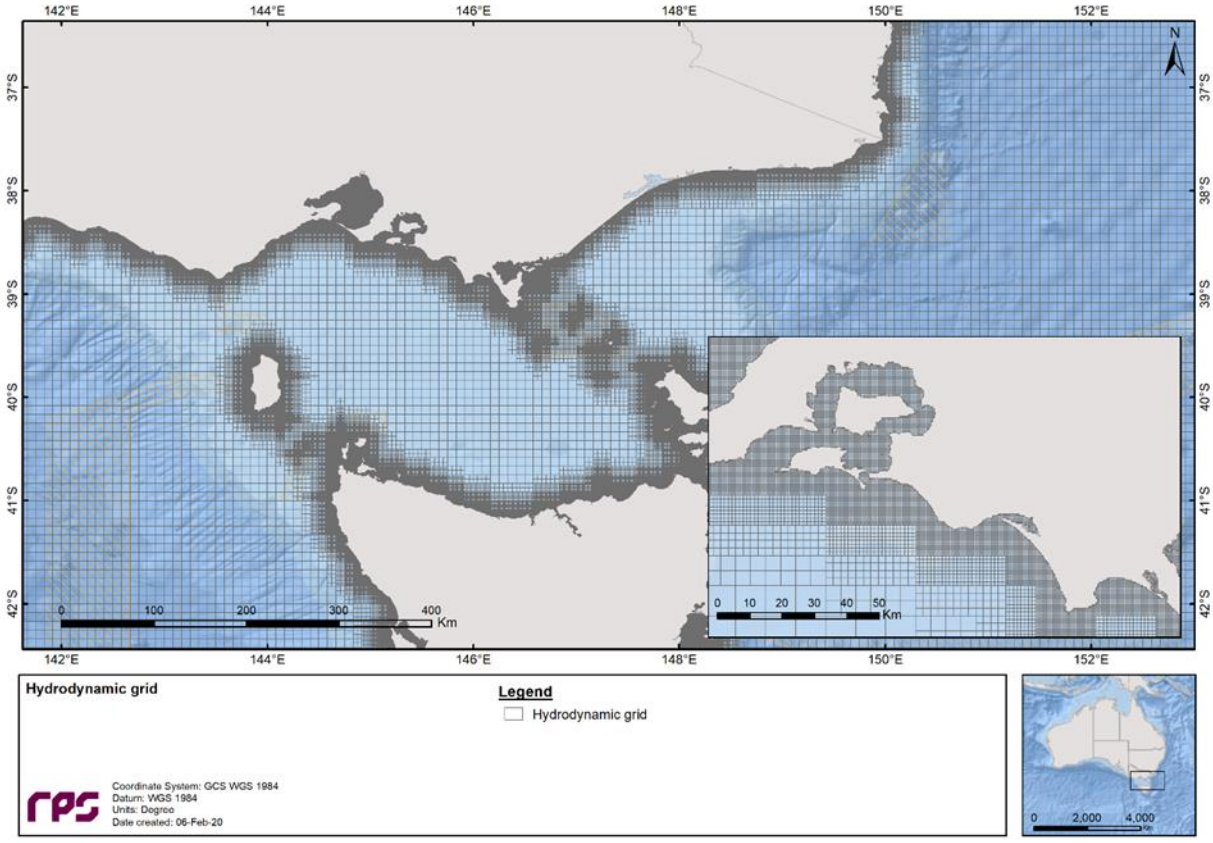


Figure 3.2 Sample of the model grid used to generate the tidal currents for the study region. Higher resolution areas are shown by the denser mesh.

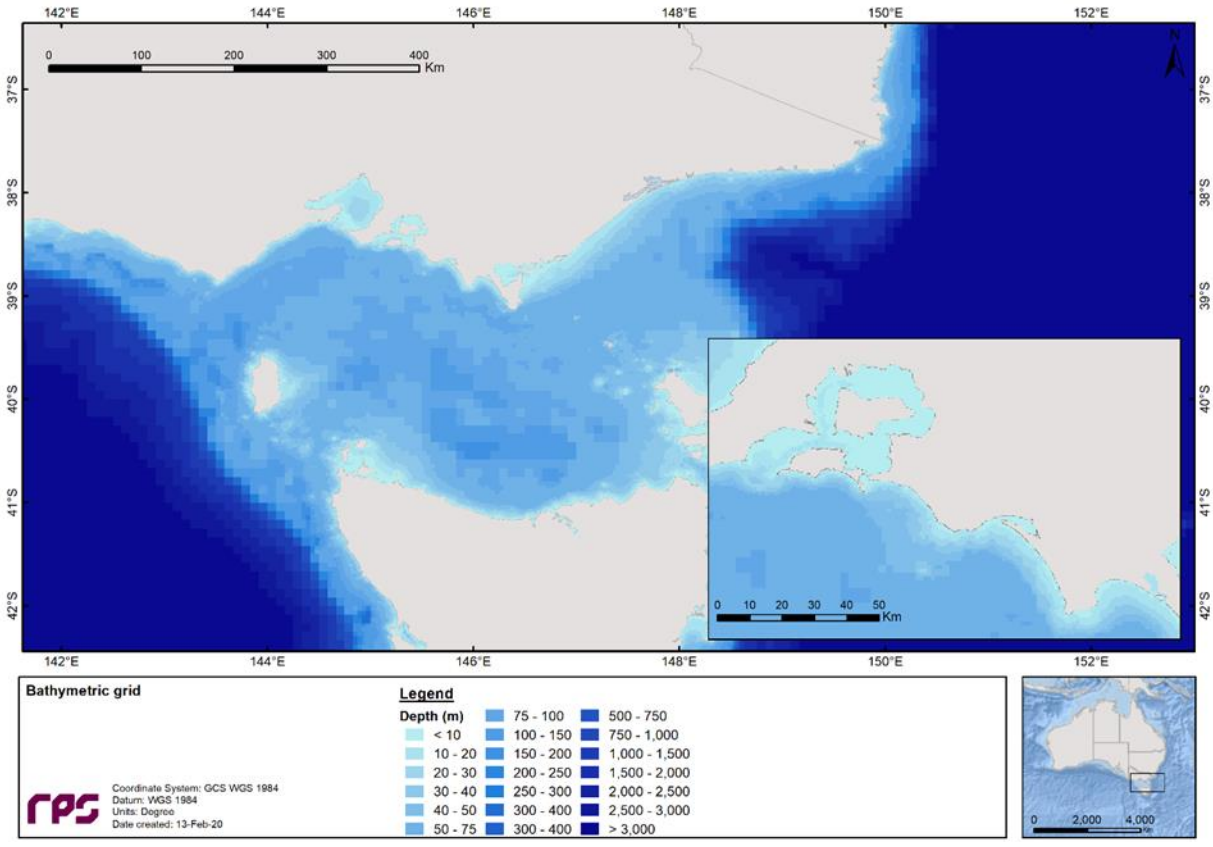


Figure 3.3 Bathymetry defined throughout the tidal model domain.

3.1.2 Tidal Conditions

The ocean boundary data for the regional model was obtained from satellite measured altimetry data (TOPEX/Poseidon 8.0) which provided estimates of the eight dominant tidal constituents at a horizontal scale of approximately 0.25 degrees. The eight major tidal constituents used were K_2, S_2, M_2, N_2, K_1, P_1, O_1 and Q_1. Using the tidal data, time series surface heights were calculated along the open boundaries for the simulation period.

The Topex/Poseidon satellite data has a resolution of 0.25 degrees globally, with higher resolution in coastal regions, and is produced and quality controlled by NASA (National Aeronautics and Space Administration). The data capturing satellites, equipped with two altimeters capable of taking sea level measurements accurate to less than ± 5 cm, measured oceanic surface elevations (and the resultant tides) for the period 1992–2005. In total these satellites carried out 62,000 orbits of the planet. The Topex/Poseidon tidal data has been widely used amongst the oceanographic community, being referenced in more than 2,100 research publications (e.g., Andersen, 1995; Ludicone et al., 1998; Matsumoto et al., 2000; Kostianoy et al., 2003; Yaremchuk & Tangdong, 2004; Qiu & Chen, 2010). The Topex/Poseidon tidal data is considered suitably accurate for this study.

3.2 Ocean Currents

Data describing the flow of ocean currents was obtained from HYCOM (Hybrid Coordinate Ocean Model, (Chassignet et al., 2007), which is operated by the HYCOM Consortium, sponsored by the Global Ocean Data Assimilation Experiment (GODAE). HYCOM is a data-assimilative, three-dimensional ocean model that is run as a hindcast (for a past period), assimilating time-varying observations of sea surface height, sea surface temperature and in-situ temperature and salinity measurements (Chassignet et al., 2009). The HYCOM predictions for drift currents are produced at a horizontal spatial resolution of approximately 8.25 km (1/12th of a degree) over the region, at a frequency of three-times per day. HYCOM uses isopycnal layers in the open, stratified ocean, but uses the layered continuity equation to make a dynamically smooth transition to a terrain-following coordinate in shallow coastal regions, and to z-level coordinates in the mixed layer and/or unstratified seas.

For this study, the HYCOM hindcast currents were obtained for the years 2010 to 2019 (inclusive).

3.3 Surface Currents

Figure 3.4 to Figure 3.7 show the monthly current rose distributions for the four locations, while Figure 3.8 to Figure 3.11 illustrate the total current rose distributions for the four locations.

Note the convention for defining current direction is the direction the current flows towards, which is used to reference current direction throughout this report. Each branch of the rose represents the currents flowing to that direction, with north to the top of the diagram. Sixteen directions are used. The branches are divided into segments of different colour, which represent the current speed ranges for each direction. Speed intervals of 0.1 m/s are predominantly used in these current roses. The length of each coloured segment is relative to the proportion of currents flowing within the corresponding speed and direction.

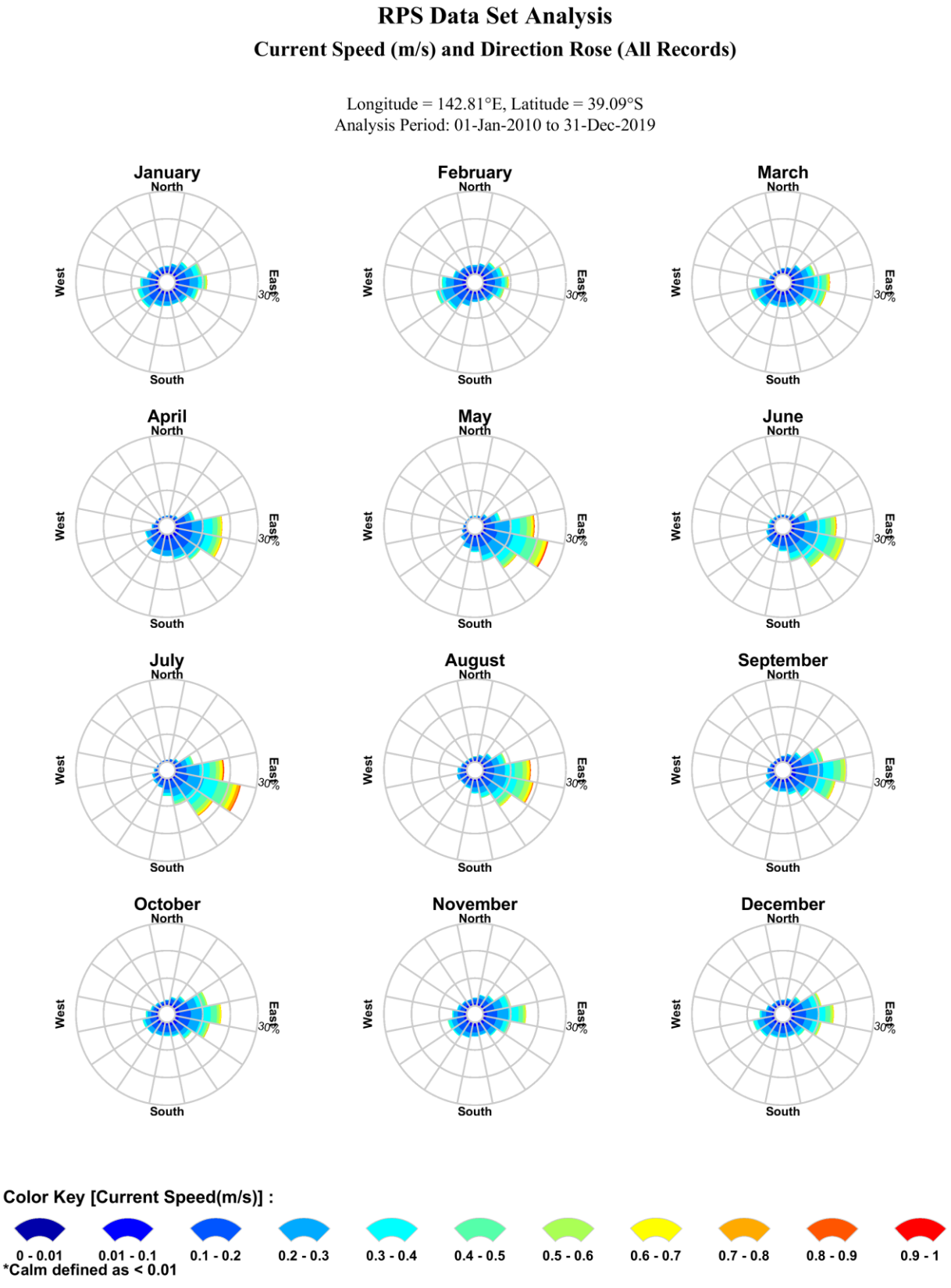


Figure 3.4 Monthly surface current rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

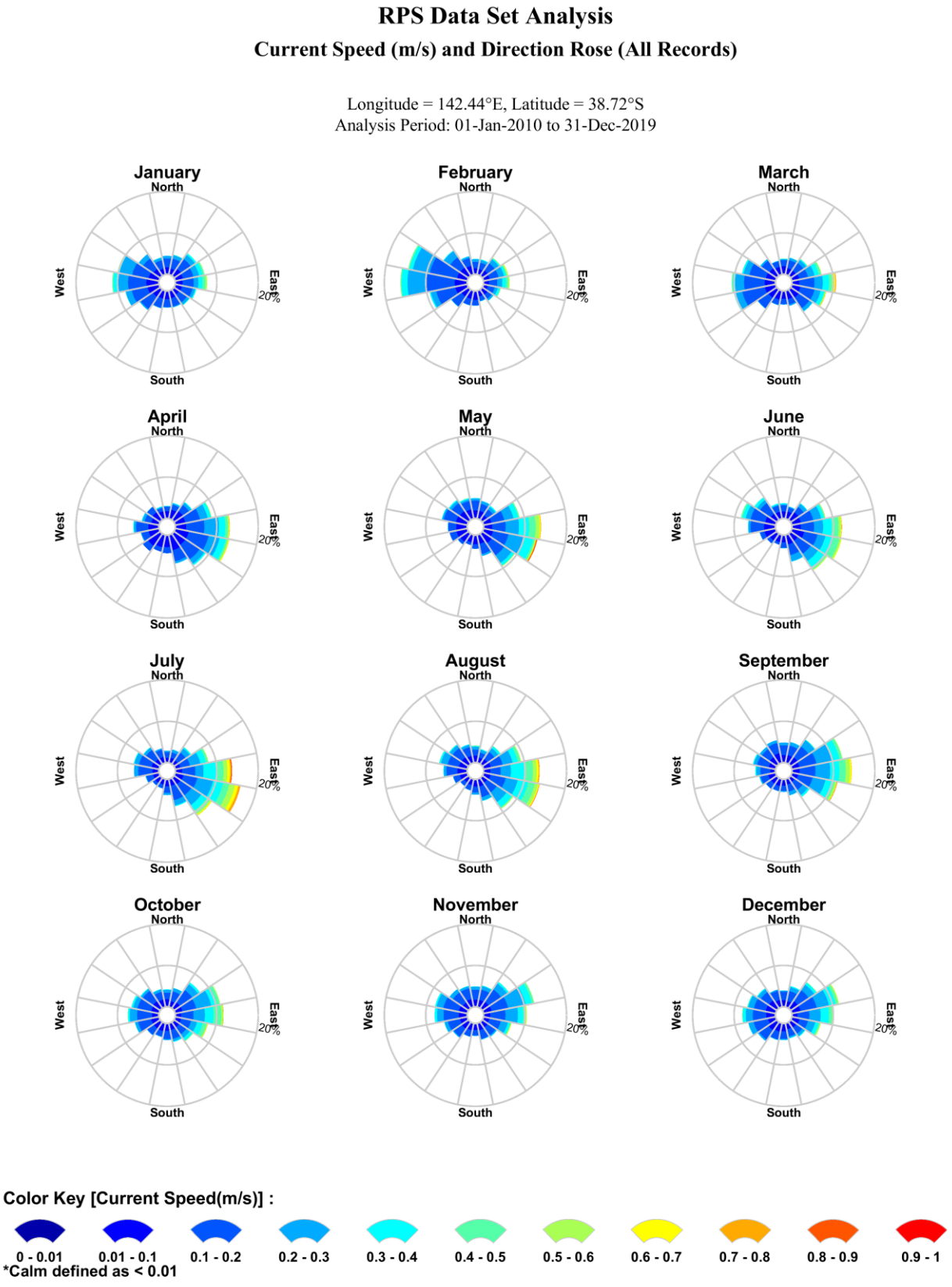


Figure 3.5 Monthly surface current rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

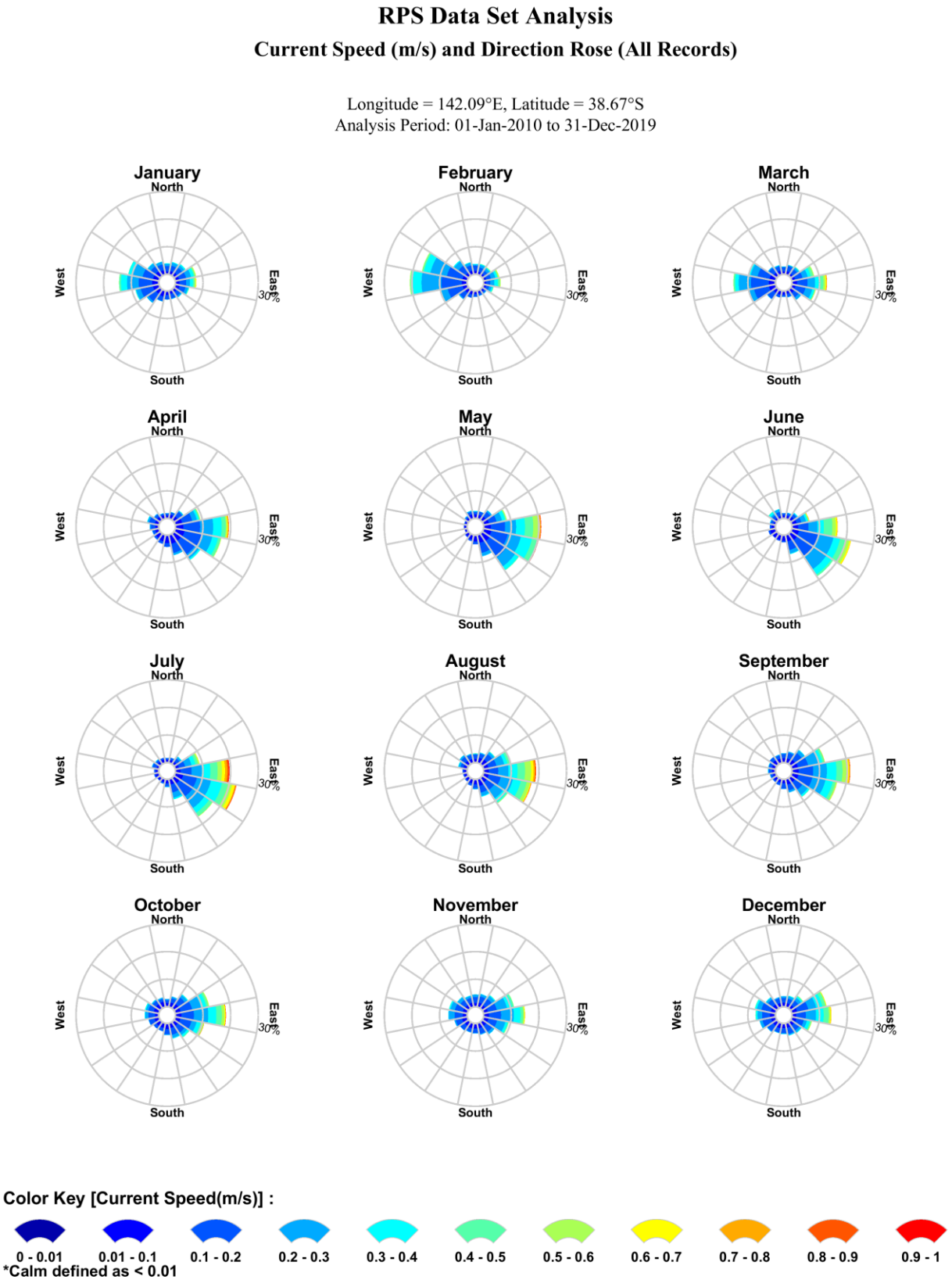


Figure 3.6 Monthly surface current rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

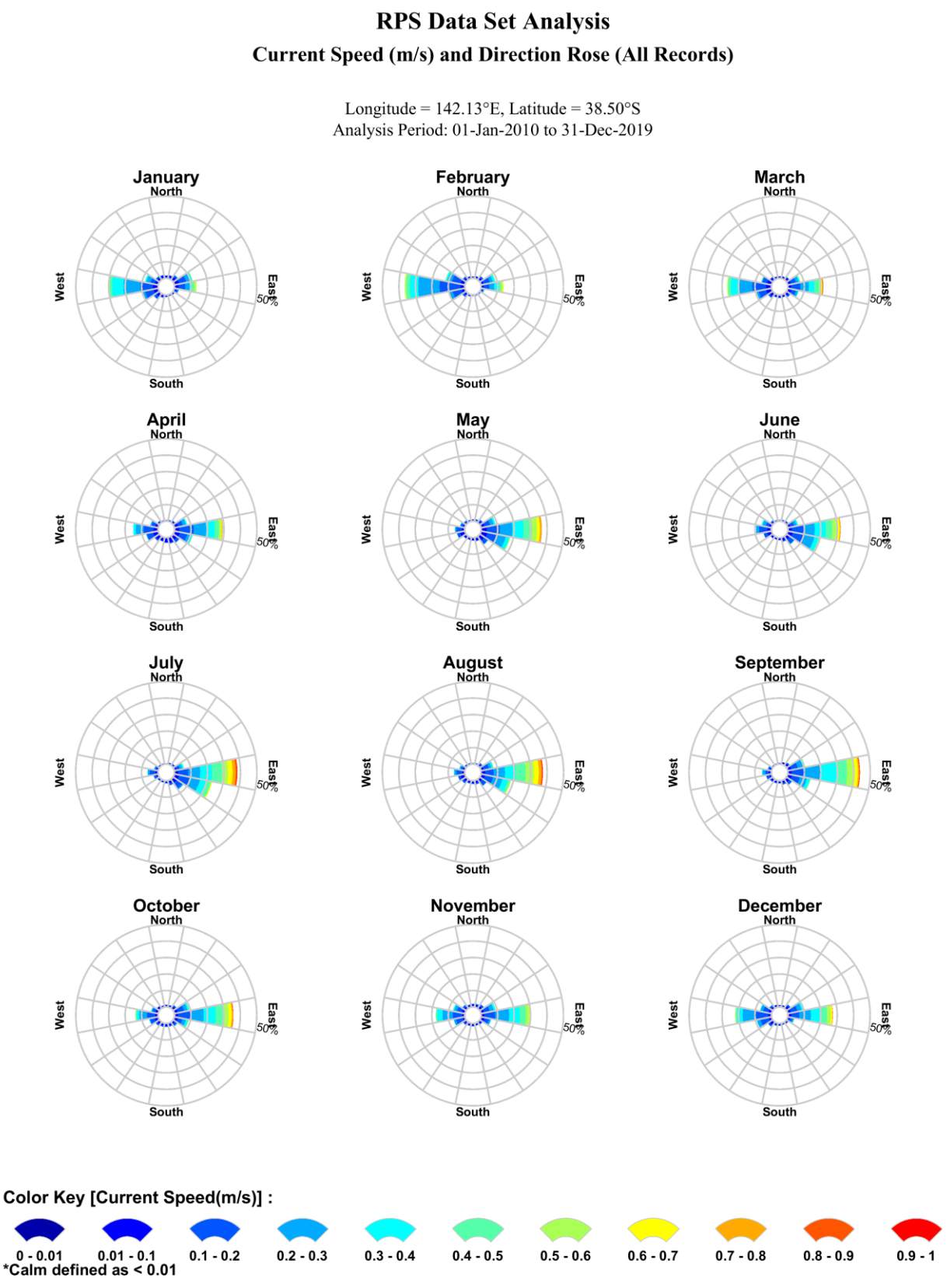


Figure 3.7 Monthly surface current rose plots for Location 4. Data is based on modelled conditions between 2010–2019 (inclusive).

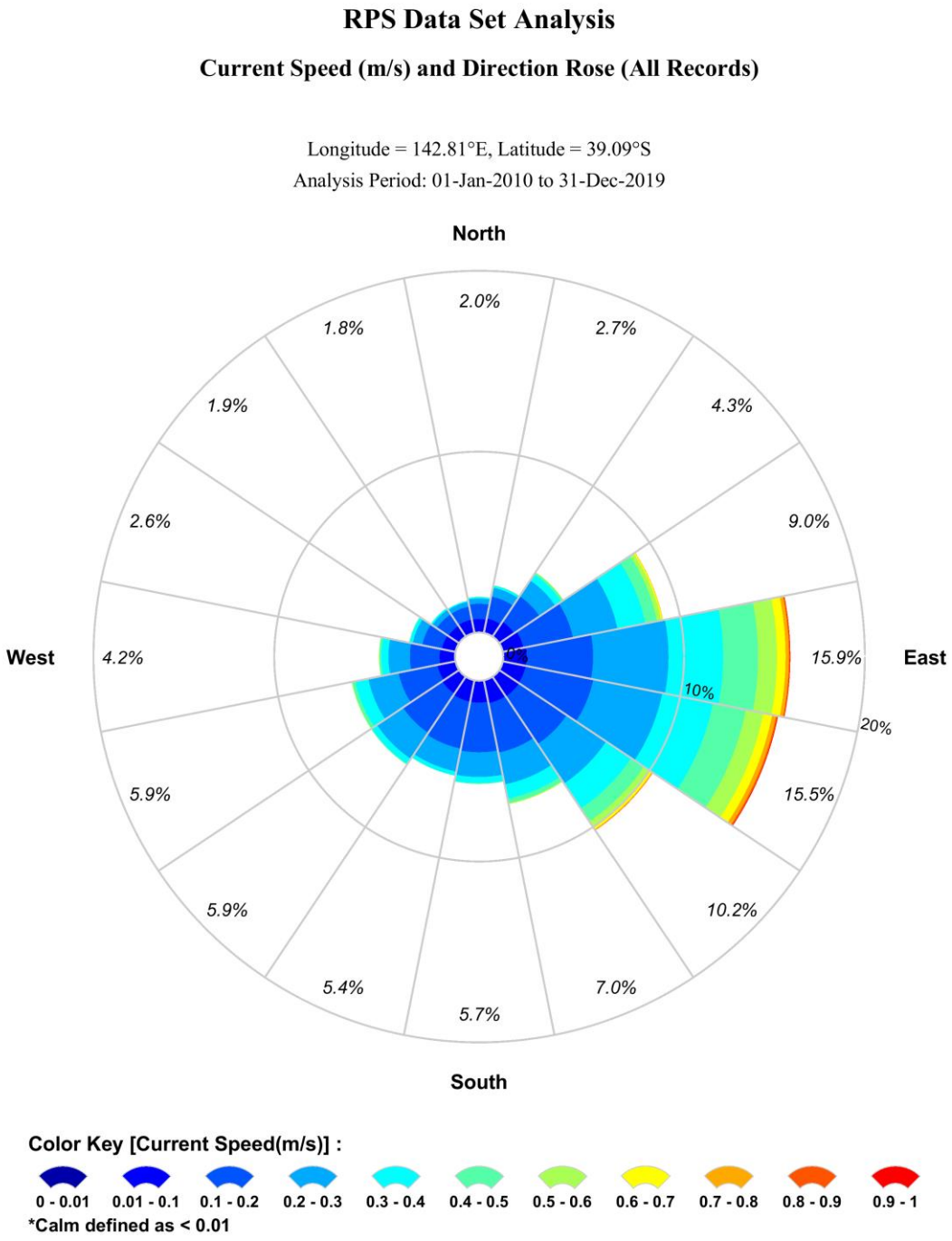


Figure 3.8 Total surface current rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

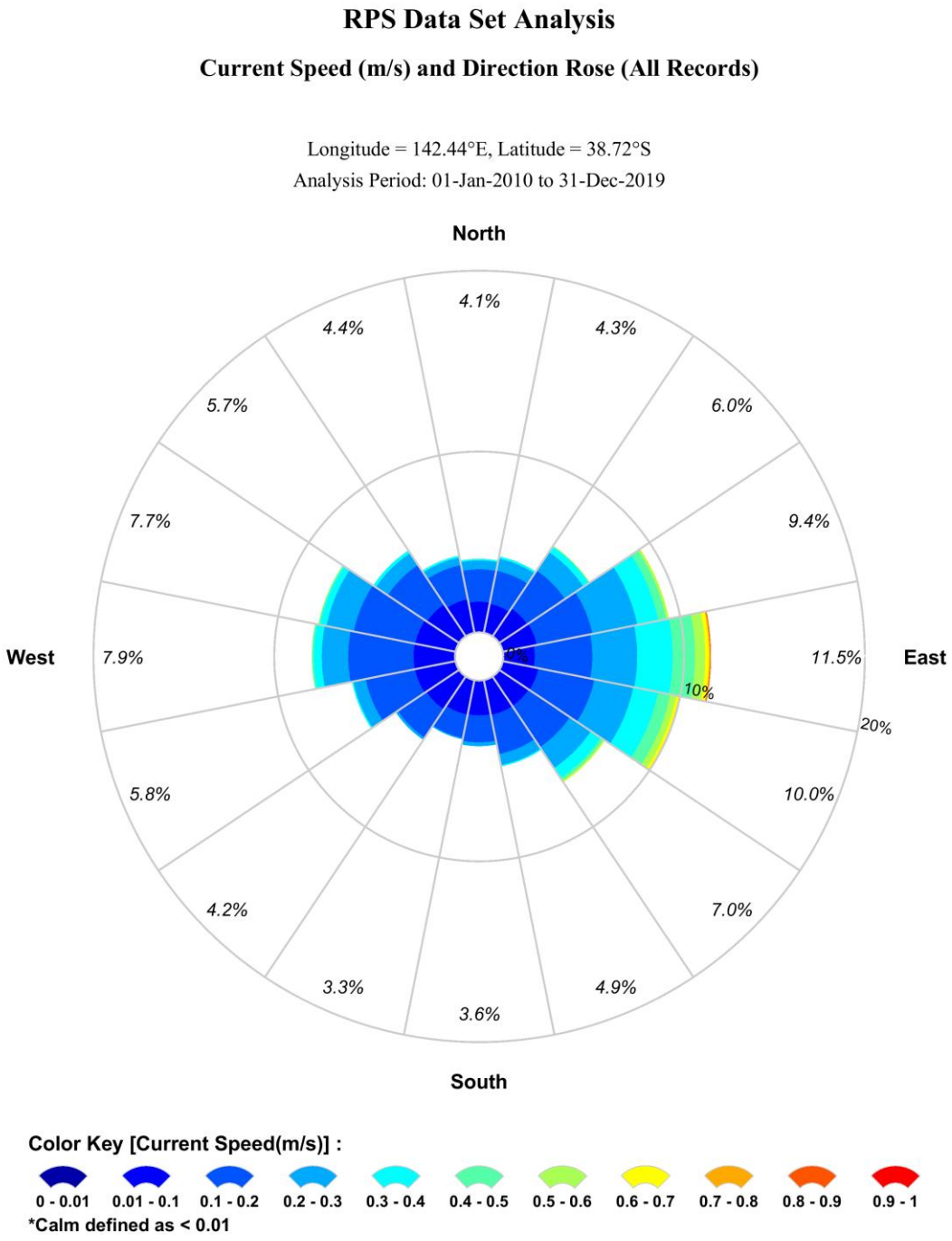


Figure 3.9 Total surface current rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

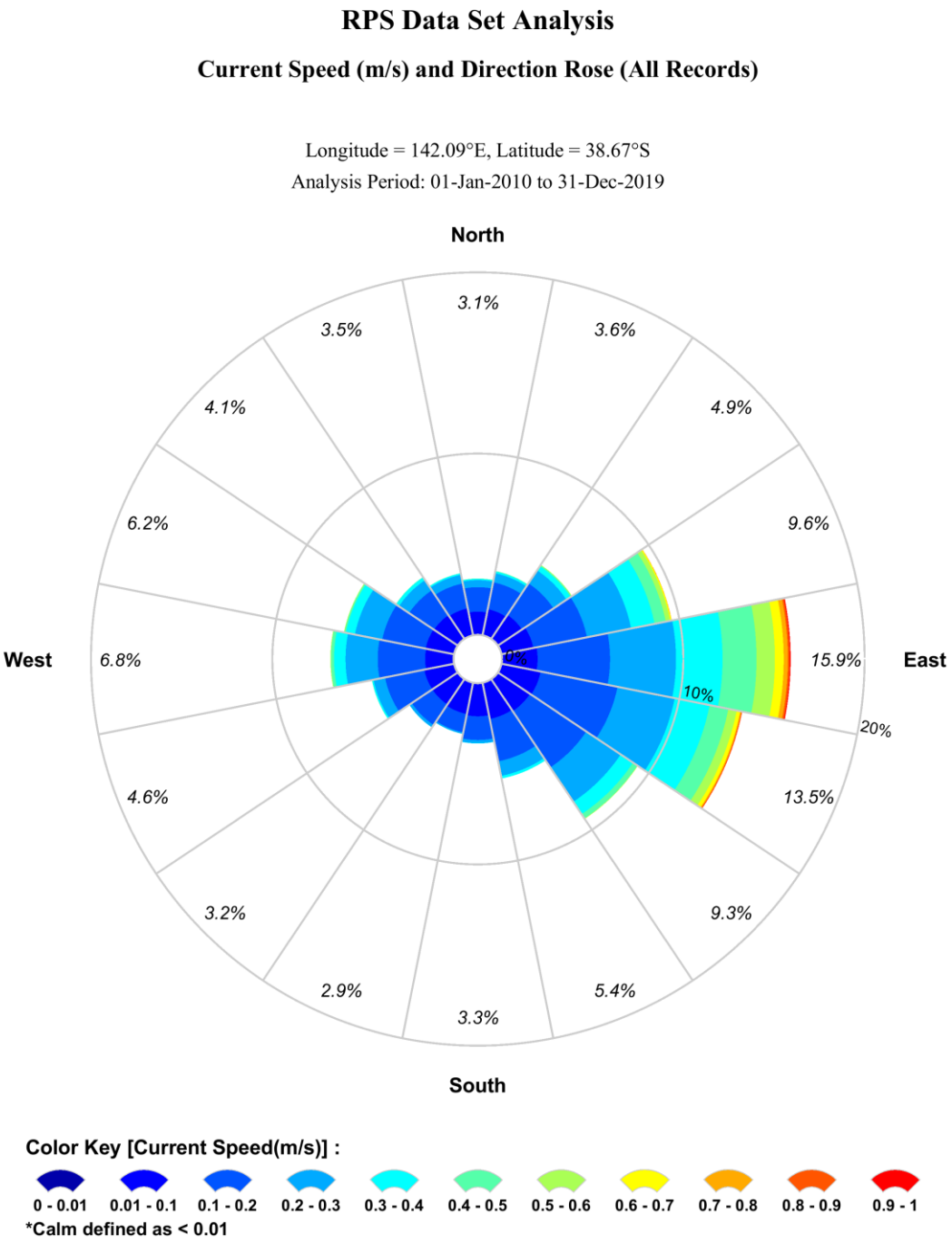


Figure 3.10 Total surface current rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

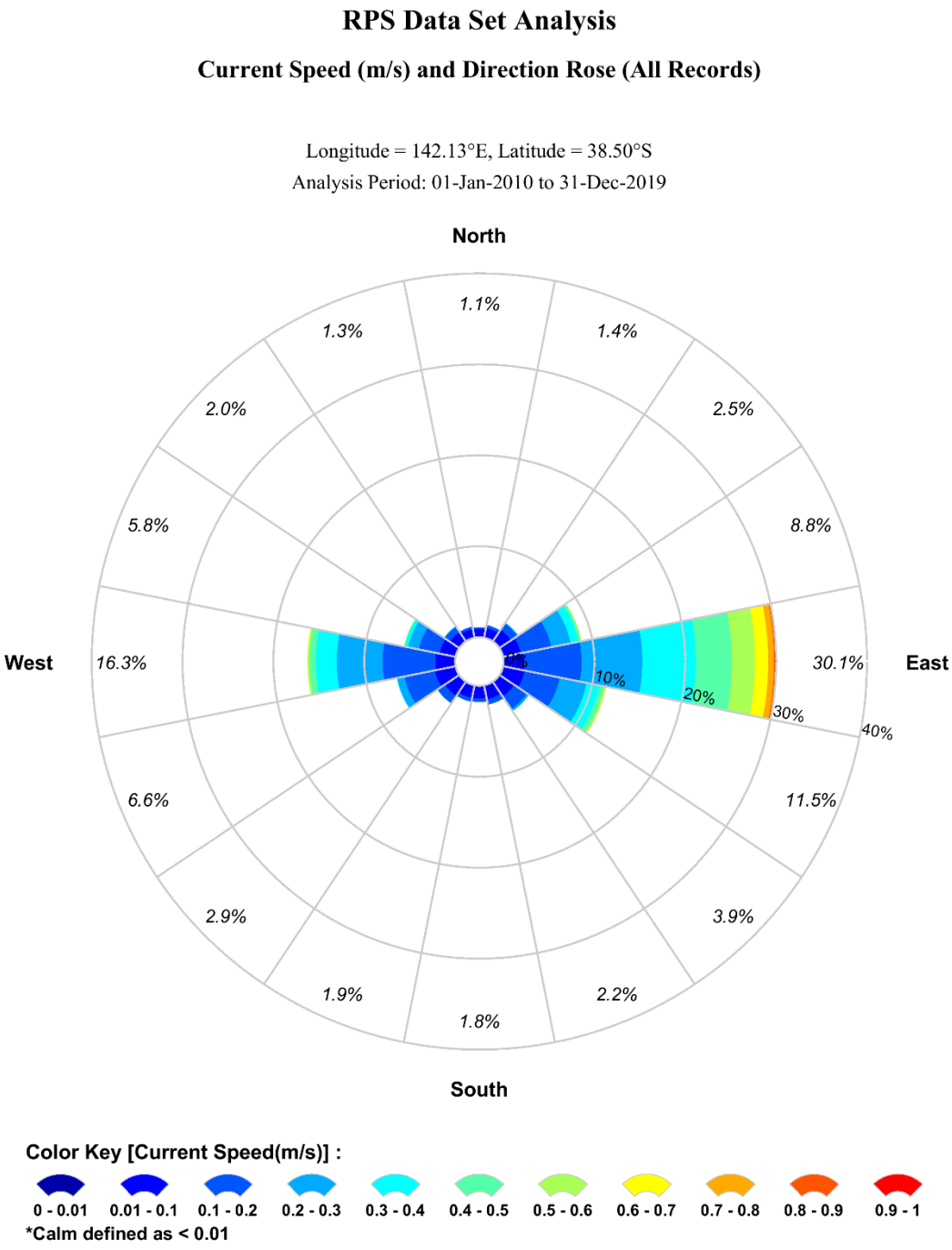


Figure 3.11 Total surface current rose plots for Location 4. Data is based on modelled conditions between 2010–2019 (inclusive).

4 WIND DATA

To account for the influence of the wind on the hydrocarbons floating on the surface, wind data from 2010 to 2019 (inclusive) was sourced from the National Centre for Environmental Prediction (NCEP) Climate Forecast System Reanalysis dataset (CFSR; see Saha et al., 2010). The CFSR wind model includes observations from many data sources: surface observations, upper-atmosphere air balloon observations, aircraft observations and satellite observations. The model is capable of accurately representing the interaction between the earth's oceans, land and atmosphere. The gridded wind data output is available at a horizontal resolution of 0.25° (~33 km) and a temporal resolution of 1 hour.

Figure 4.1 is a screenshot illustrating the spatial resolution of the CFSR modelled wind data.

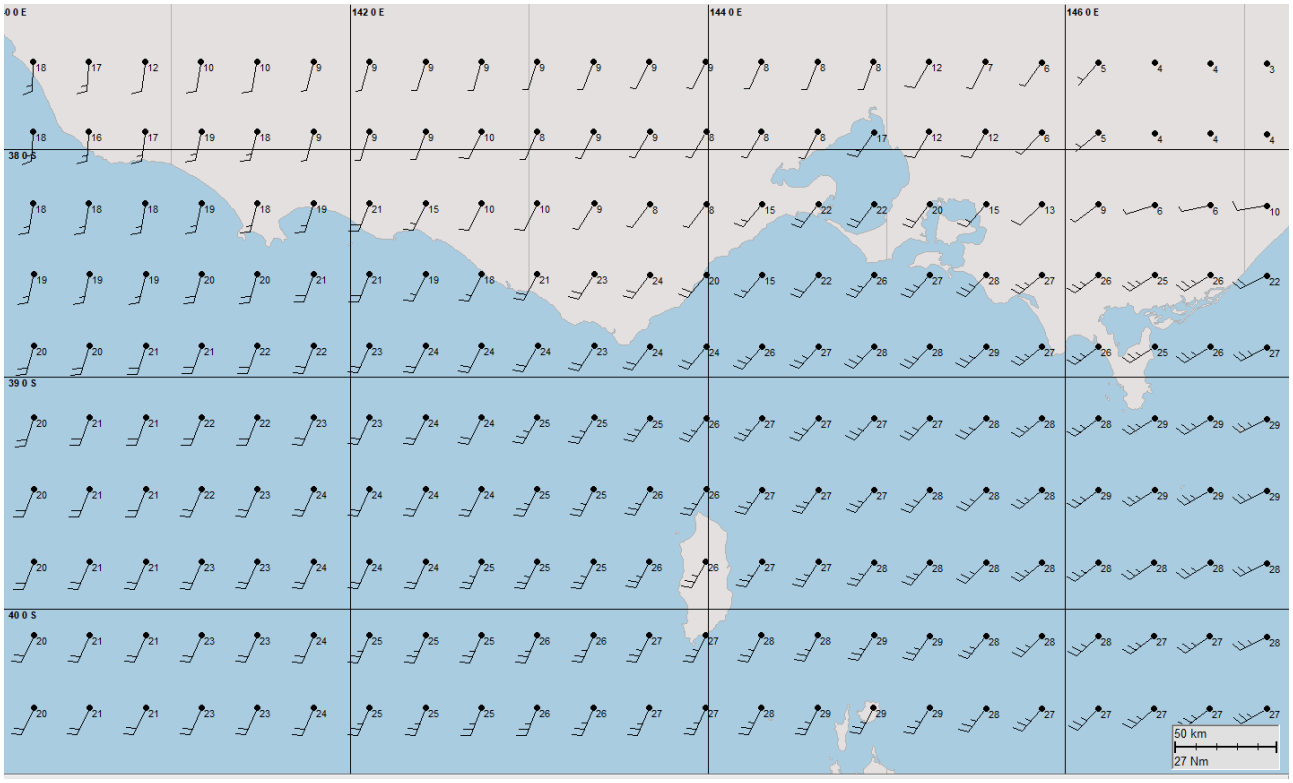


Figure 4.1 Spatial resolution of the CFSR modelled wind data used as input into the oil spill model.

Figure 4.2 to Figure 4.5 and Figure 4.6 to Figure 4.9 shows the monthly and total wind rose distributions derived from the CFSR nodes closest to the release locations, respectively.

Note that the atmospheric convention for defining wind direction, that is, the direction the wind blows from, is used to reference wind direction throughout this report. Each branch of the rose represents wind coming from that direction, with north to the top of the diagram. Sixteen directions are used. The branches are divided into segments of different colour, which represent wind speed ranges from that direction. Speed ranges of 3 knots are predominantly used in these wind roses. The length of each segment within a branch is proportional to the frequency of winds blowing within the corresponding range of speeds from that direction.

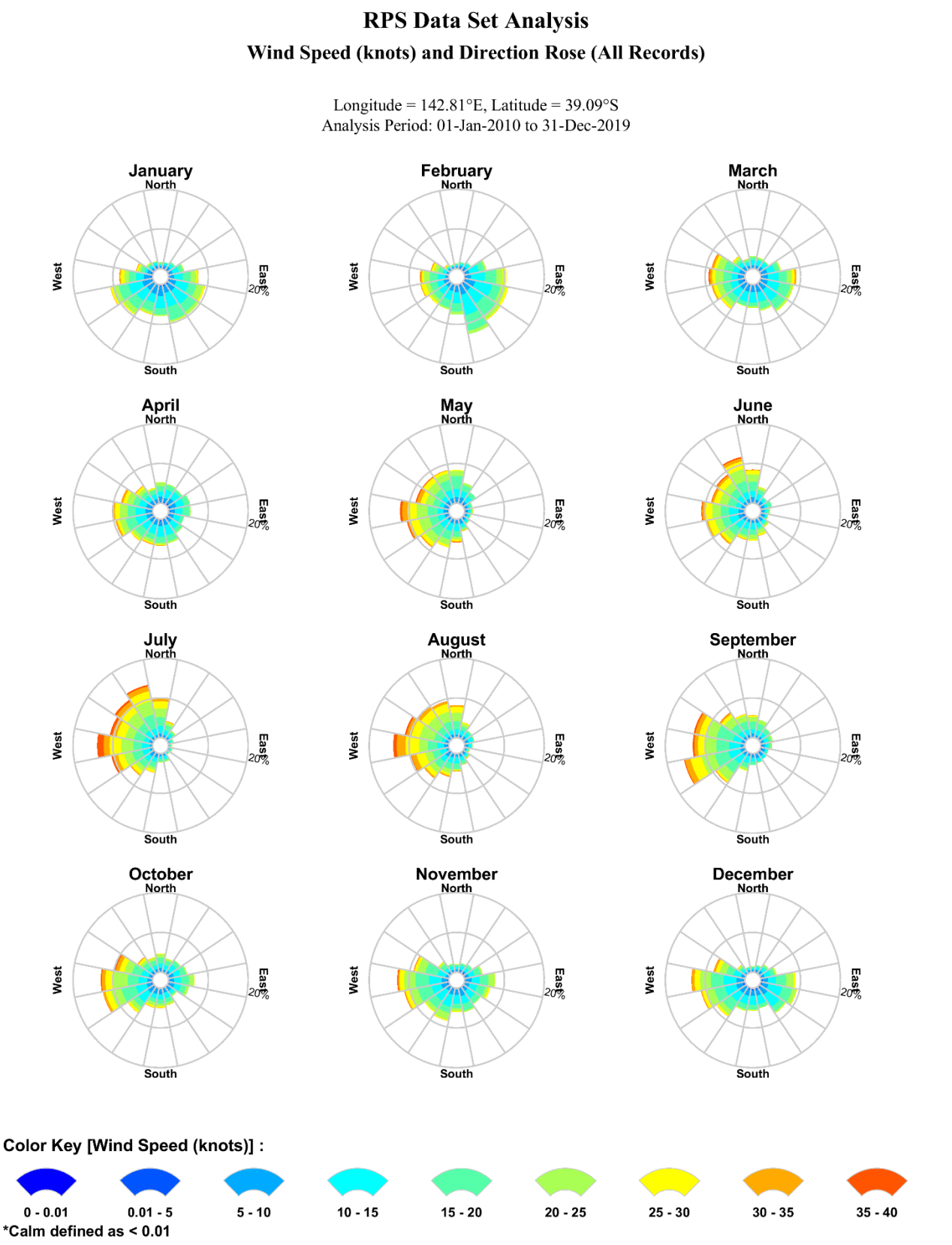


Figure 4.2 Monthly wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

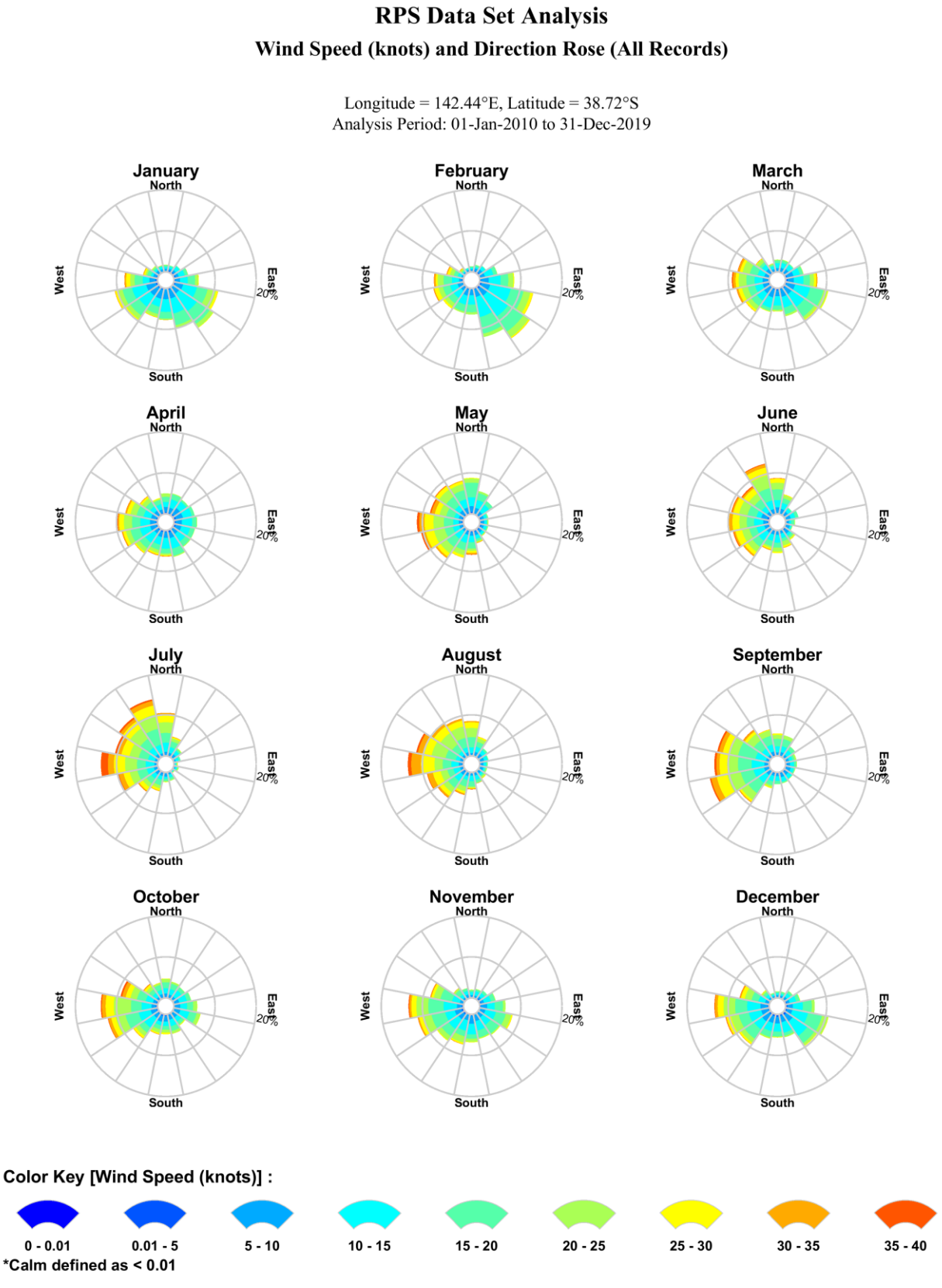


Figure 4.3 Monthly wind rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

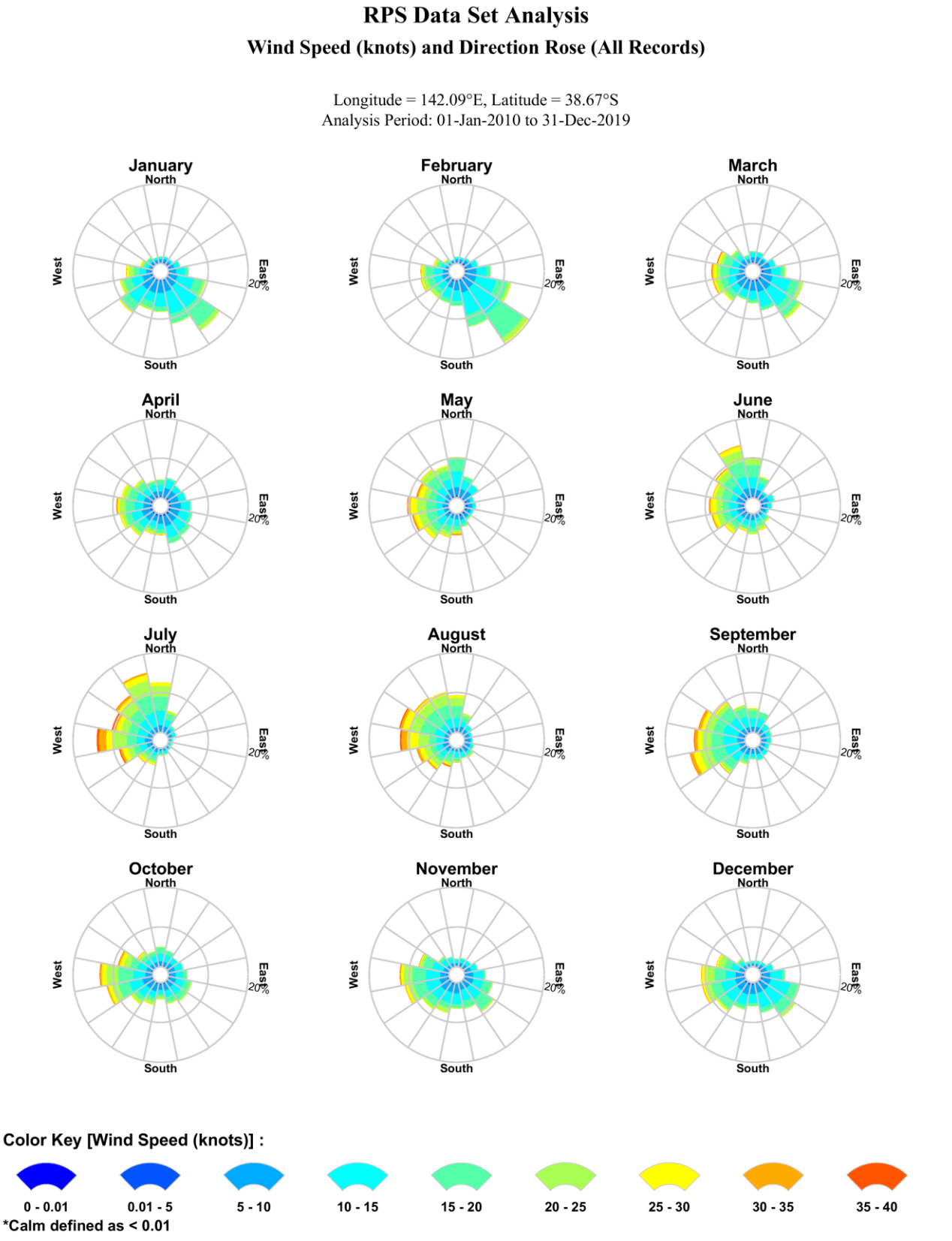


Figure 4.4 Monthly wind rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

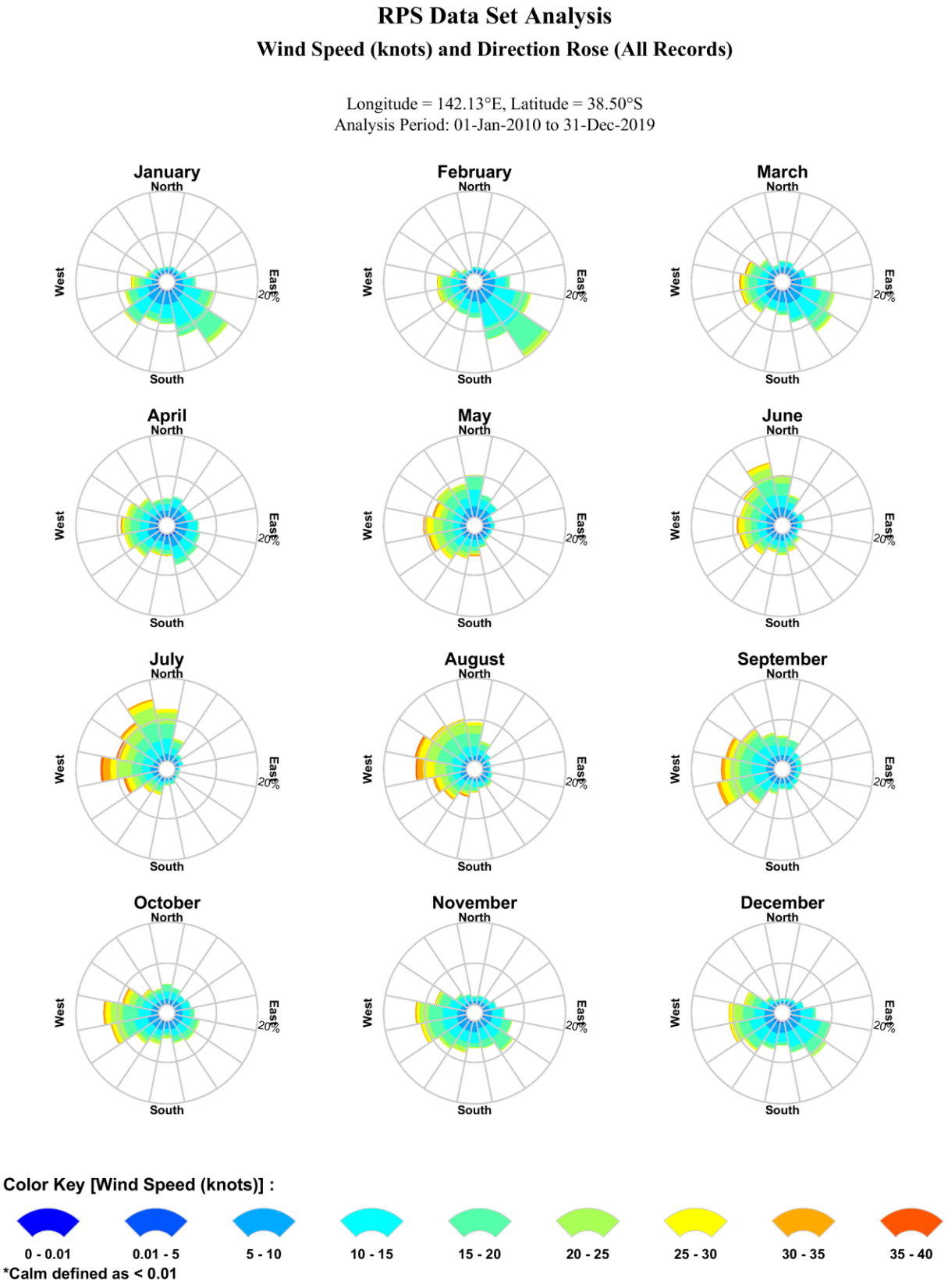


Figure 4.5 Monthly wind rose plots for Location 4. Data is based on modelled conditions between 2010–2019 (inclusive).

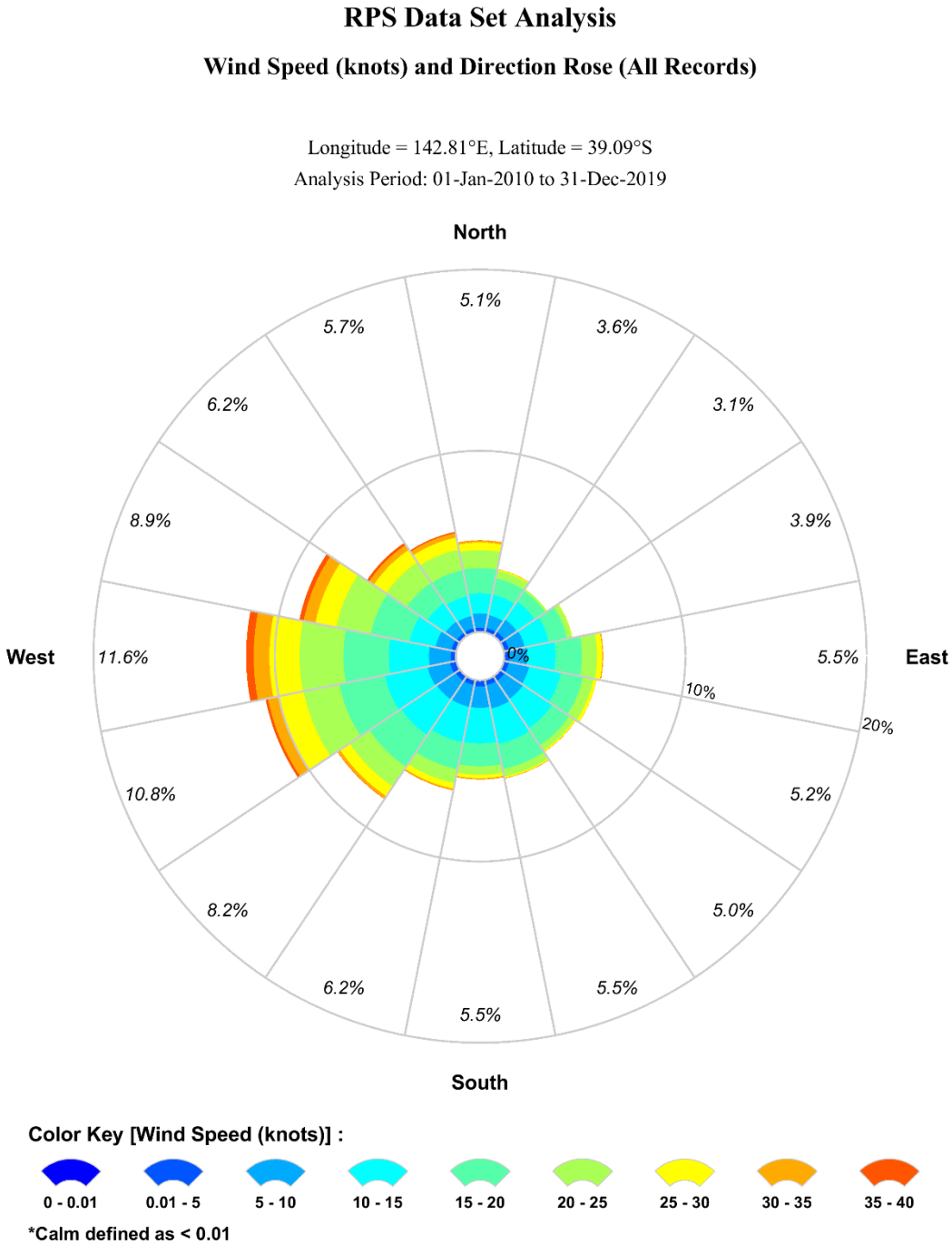


Figure 4.6 Total wind rose plots for Location 1. Data is based on modelled conditions between 2010–2019 (inclusive).

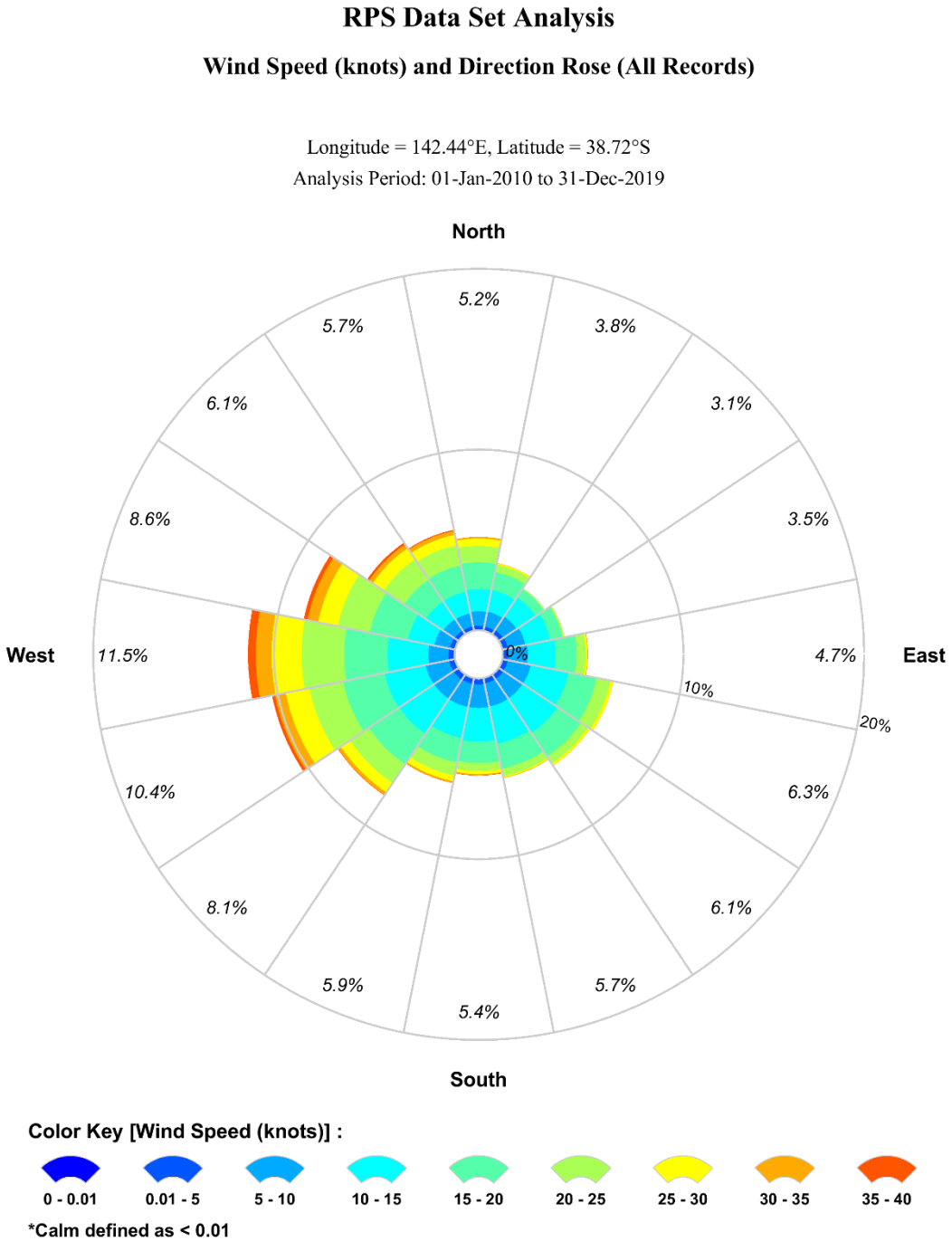


Figure 4.7 Total wind rose plots for Location 2. Data is based on modelled conditions between 2010–2019 (inclusive).

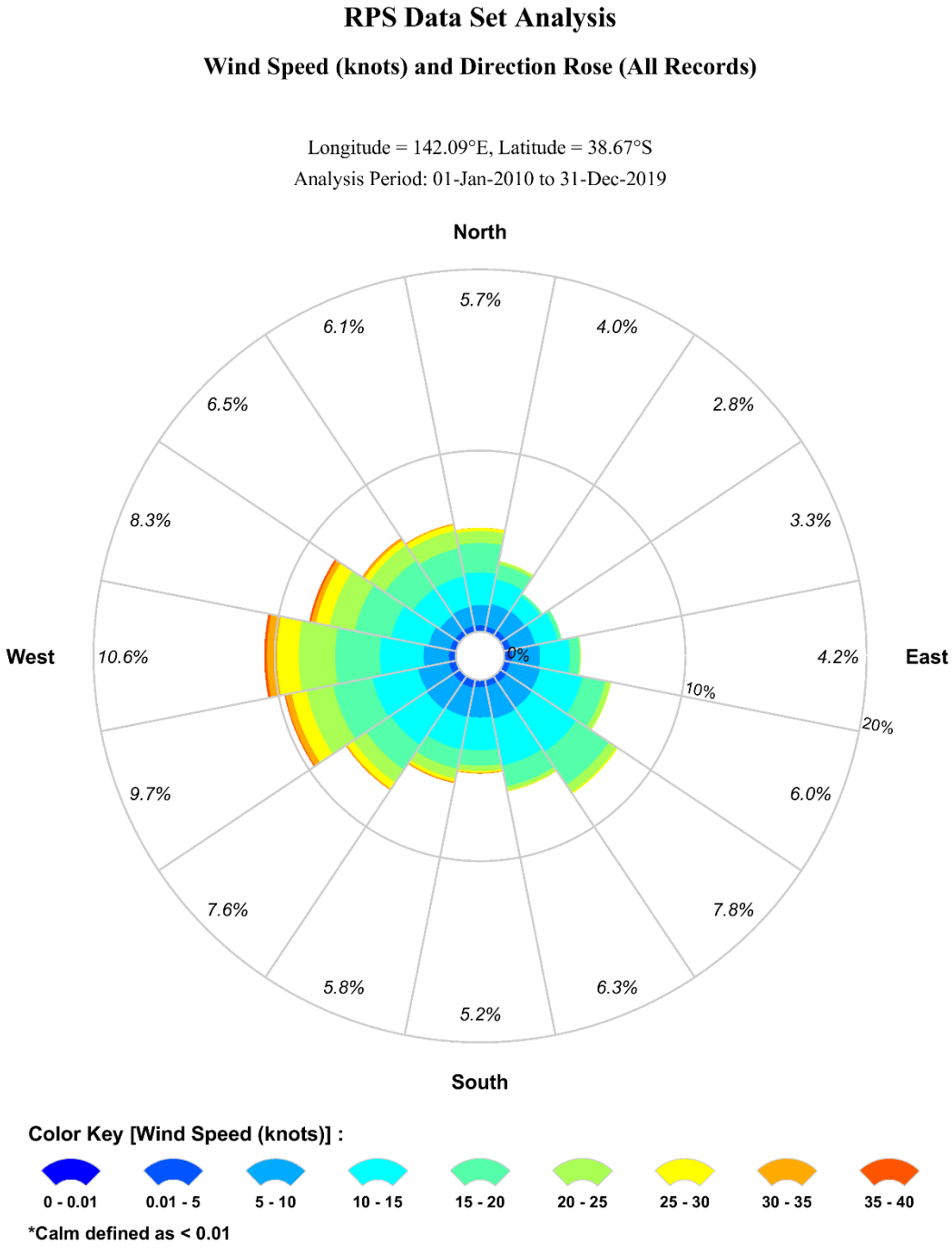


Figure 4.8 Total wind rose plots for Location 3. Data is based on modelled conditions between 2010–2019 (inclusive).

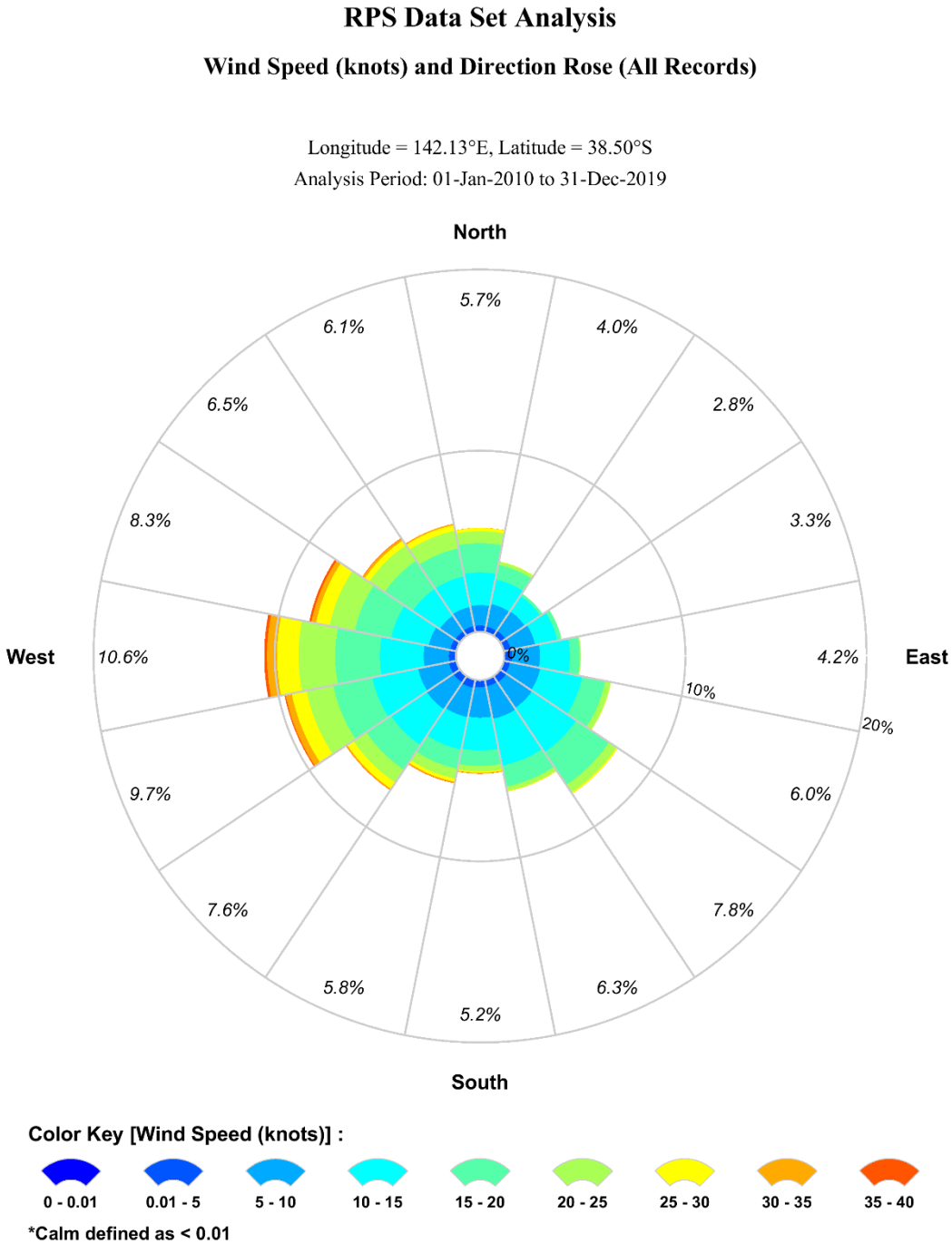


Figure 4.9 Total wind rose plots for Location 4. Data is based on modelled conditions between 2010–2019 (inclusive).

5 WATER TEMPERATURE AND SALINITY

Monthly water temperature and salinity data was obtained from the World Ocean Atlas 2013 database produced by the National Oceanographic Data Centre (National Oceanic and Atmospheric Administration) and its co-located World Data Center for Oceanography (Levitus et al. 2013). The data is used as input into oil spill model.

The monthly mean sea surface temperature and salinity values in the 0-5 m depth layer are presented in Table 5.1. The monthly average sea surface temperatures ranged between 13.2°C (September, release location 1) and 18.0°C (March, release locations 2, 3 and 4; and January, release location 2). The monthly average salinity values remain relatively consistent ranging between 35.1 psu and 35.6 psu.

Figure 5.1 and Figure 5.2 present the monthly water temperature and salinity profiles adjacent to release locations 1 and 2, and 3 and 4, respectively.

Table 5.1 Monthly average sea surface temperature and salinity adjacent to release locations 1–4.

Release Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Temperature (°C)	17.7	17.2	17.8	16.3	16.0	16.0	14.8	13.5	13.2	14.3	14.3	15.9
	Salinity (psu)	35.3	35.1	35.4	35.3	35.3	35.4	35.6	35.3	35.3	35.4	35.4	35.4
2	Temperature (°C)	18.0	17.5	18.0	16.5	16.6	16.1	14.8	14.0	13.4	14.3	14.5	16.0
	Salinity (psu)	35.4	35.2	35.5	35.4	35.4	35.4	35.5	35.3	35.3	35.3	35.4	35.3
3	Temperature (°C)	17.9	17.6	18.0	16.5	16.6	16.1	14.7	14.1	13.3	14.1	14.5	15.8
	Salinity (psu)	35.4	35.2	35.5	35.4	35.4	35.4	35.5	35.3	35.2	35.3	35.4	35.2
4	Temperature (°C)	17.9	17.6	18.0	16.5	16.6	16.1	14.7	14.1	13.3	14.1	14.5	15.8
	Salinity (psu)	35.4	35.2	35.5	35.4	35.4	35.4	35.5	35.3	35.2	35.3	35.4	35.2

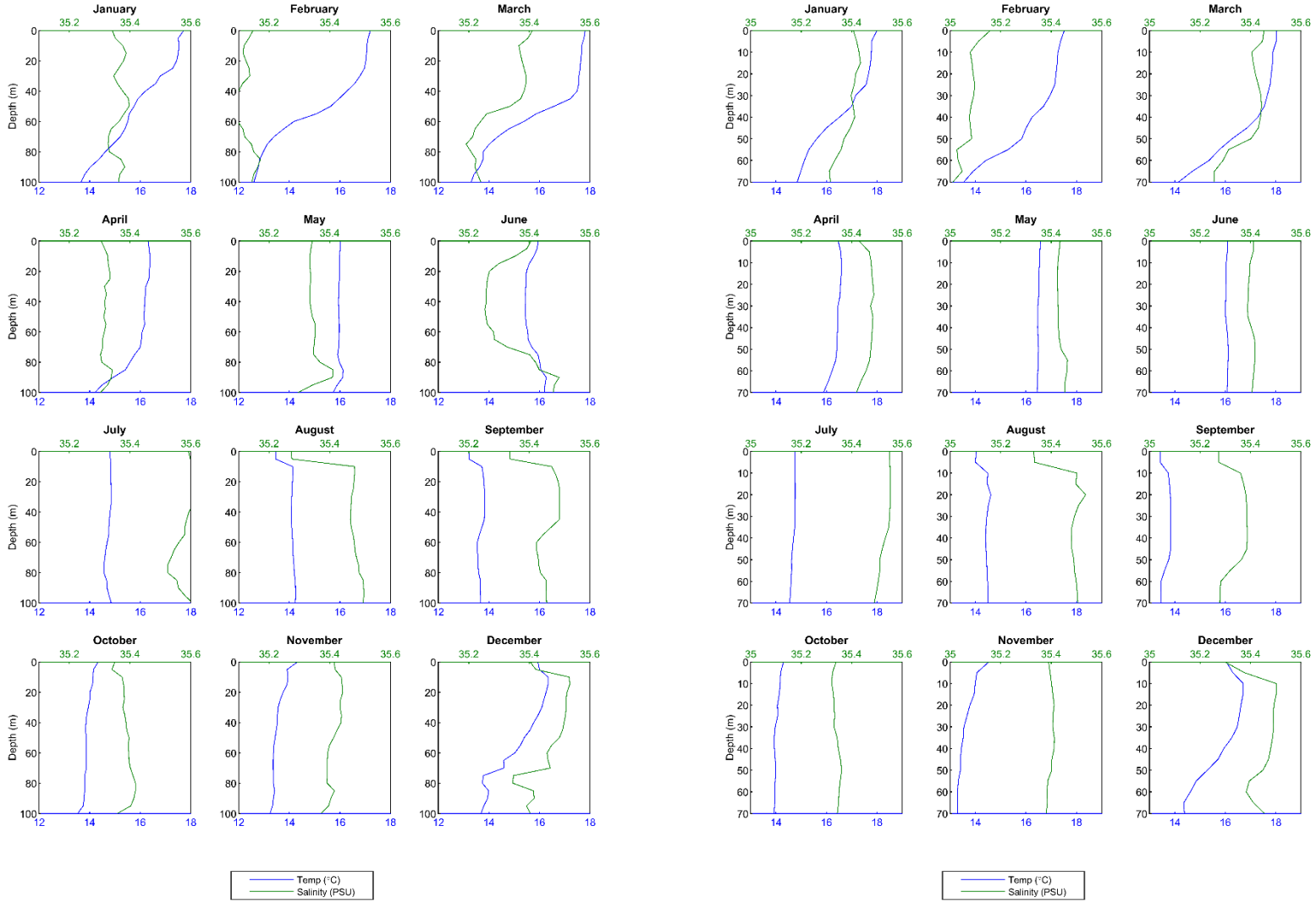


Figure 5.1 Monthly water temperature (blue line) and salinity (green line) profiles for Location 1 (left) and Location 2 (right). Depth of 0 m is the water surface.

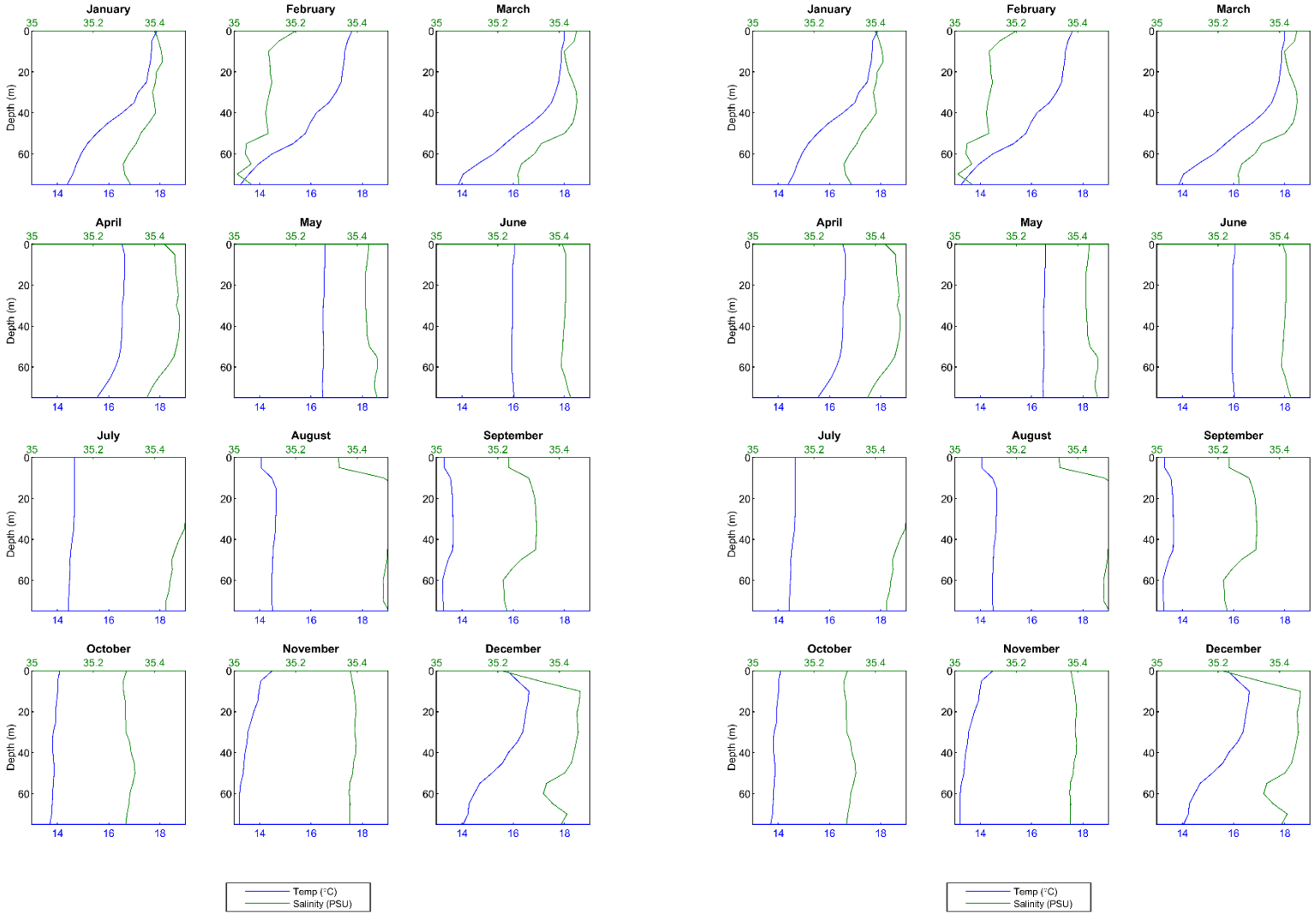


Figure 5.2 Monthly water temperature (blue line) and salinity (green line) profiles for Location 3 (left) and Location 4 (right). Depth of 0 m is the water surface.

6 NEAR-FIELD MODEL – OILMAP DEEP

The LOWC scenario is a high-pressure release of mostly gas, condensate and small volume of condensed water. Where gas is released with condensate, the buoyancy of the expanding gas cloud will entrain ambient seawater and propel the droplets towards the surface at a faster rate than would occur from the relative buoyancy of the oil alone. Furthermore, the turbulence generated by such an intense discharge will tend to break the condensate up into droplets of various sizes.

To define the near-field plume dynamics, the subsea blowout model, OILMAP-DEEP, was applied. The model simulates the plume rise dynamics in two phases, the initial jet phase and the buoyant plume phase. The initial jet phase governs the plume dynamics directly above the subsurface release location and is predominately driven by the exit velocity. During this phase, the hydrocarbon droplet size and distribution is calculated. Next, the rise dynamics are dominated by the buoyant nature of the plume until the termination of the plume phase (known as the trapping depth). At this point, the results from OILMAP-DEEP (including plume trapping depth, plume diameter and droplet size distribution) are integrated into the far-field model SIMAP to simulate the rise and dispersion of the condensate droplets.

More details on the OILMAP-DEEP model, can be found in Spaulding et al. (2015). The model has been validated against observations from Deepwater Horizon as well as small and large-scale laboratory studies on subsurface oil releases (Brandvik et al., 2013, 2014; Belore, 2014; Spaulding et al., 2015; Li et al., 2017). Figure 6.1 illustrates the various stages of an example blowout plume.

Table 6.1 presents the input parameters for the OILMAP-DEEP model and key results related to the near-field plume dynamics. Inputs to the model included specification of the condensate density, viscosity and the discharge rate of the fluids: the diameter of the exit hole and the gas to oil ratio. The local temperature and salinity profiles of the water column were also specified to define the vertical density profile.

The subsea near-field modelling indicated that this pressurised discharge would cause the plume to breach the surface waters and the condensate droplets would surface in less than a few minutes. The condensate droplets sizes were near identical at the four locations and range from 34 µm to 153 µm.

Table 6.1 Input data for the near field subsea modelling and key results for each location from the high-pressure LOWC release.

Input Variable	Location 1	Location 2	Location 3	Location 4
Water depth (m)	93	74	66	45
Exit hole diameter (inch)	8.53			
Condensate release rate (m^3/day)	1,549			
Gas to condensate ratio (scf/bbl)	50,000			
Formation water flow rate (stb/day)	974			
Reservoir Temperature (^oC)	130			
Well pressure at seafloor (psia)	136 psia (day 1) constant pressure	108 psia (day 1) constant pressure	96 psia (day 1) constant pressure	65 psia (day 1) constant pressure
Key results				
Plume execution depth (m BMSL)	0 (breach surface waters)			
Droplet sizes (µm)	35 - 153	34 - 148	34 - 149	34 - 146
Final plume diameter (m)	14.6	10.3	10.7	8.3

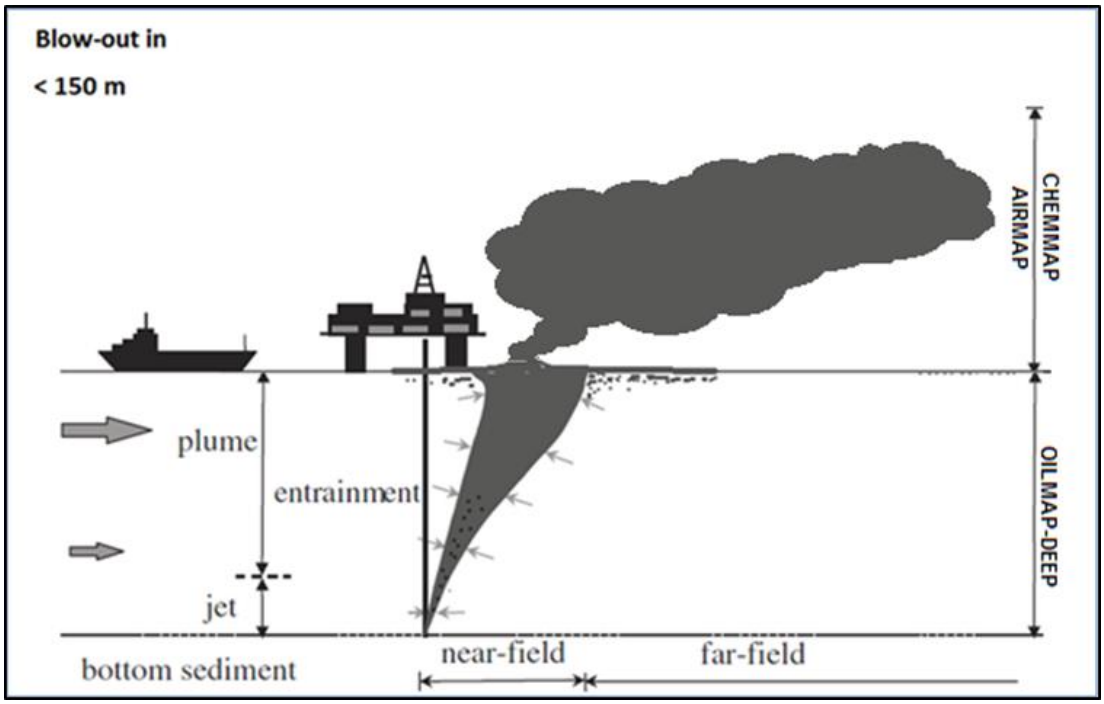


Figure 6.1 Example of a blowout plume illustrating the various stages of the plume in the water column (Source: Applied Science Associates, 2011).

7 OIL SPILL MODEL - SIMAP

The spill modelling was carried out using a purpose-developed oil spill trajectory and fates model, SIMAP (Spill Impact Model Application Package). This model is designed to simulate the transport and weathering processes that affect the outcomes of hydrocarbon spills to the sea, accounting for the specific oil type, spill scenario, and prevailing wind and current circulation patterns.

SIMAP is the evolution of the United States Environmental Protection Agency (US EPA) Natural Resource Damage Assessment model (French & Rines, 1997; French et al., 1999) and is designed to simulate the fate and effects of spilled oils and fuels for both the surface slick and the three-dimensional plume that is generated in the water column. SIMAP includes algorithms to account for both physical transport and weathering processes. The latter are important for accounting for the partitioning of the spilled mass over time between the water surface (surface slick), water column (entrained oil and dissolved compounds), atmosphere (evaporated compounds) and land (stranded oil). The model also accounts for the interaction between weathering and transport processes.

The physical algorithms calculate transport and spreading by physical forces, including surface tension, gravity and wind and current forces for both surface slicks and oil within the water column. The fates algorithms calculate all the weathering processes known to be important for oil spilled to marine waters. These include droplet and slick formation, entrainment by wave action, emulsification, dissolution of soluble components, sedimentation, evaporation, bacterial and photo-chemical decay and shoreline interactions. These algorithms account for the specific oil type being considered.

Entrainment is the physical process where globules of oil are transported from the sea surface into the water column by wind and wave-induced turbulence or be generated subsea by a pressurised discharge at depth. It has been observed that entrained oil is broken into droplets of varying sizes. Small droplets spread and diffuse into the water column, while larger ones rise rapidly back to the surface (Delvigne & Sweeney, 1988; Delvigne, 1991).

Dissolution is the process by which soluble hydrocarbons enter the water from a surface slick or from entrained droplets. The lower molecular weight hydrocarbons tend to be both more volatile and more soluble than those of higher molecular weight.

The formation of water-in-oil emulsions, or mousse, which is termed ‘emulsification’, depends on oil composition and sea state. Emulsified oil can contain as much as 80% water in the form of micrometre-sized droplets dispersed within a continuous phase of oil (Daling & Brandvik, 1991; Bobra, 1991; Daling et al., 1997; Fingas, 1995).

Evaporation can result in the transfer of large proportions of spilled oil from the sea surface to the atmosphere, depending on the type of oil (Gundlach & Boehm, 1981).

Evaporation rates vary over space and time dependent on the prevailing sea temperatures, wind and current speeds, the surface area of the slick and entrained droplets that are exposed to the atmosphere as well as the state of weathering of the oil. Evaporation rates will decrease over time, depending on the calculated rate of loss of the more volatile compounds. By this process, the model can differentiate between the fates of different oil types.

Decay (degradation) of hydrocarbons may occur as the result of photolysis, which is a chemical process energised by ultraviolet light from the sun, and by biological breakdown, termed biodegradation. Many types of marine organisms ingest, metabolise and utilise oil as a carbon source, producing carbon dioxide and water as by-products.

Entrainment, dissolution and emulsification rates are correlated to wave energy, which is accounted for by estimating wave heights from the sustained wind speed, direction and fetch (i.e. distance downwind from land barriers) at different locations in the domain. Dissolution rates are dependent upon the proportion of soluble, short-chained hydrocarbon compounds, and the surface area at the oil/water interface of slicks. Dissolution rates are also strongly affected by the level of turbulence. For example, dissolution rates will be relatively high at the site of the release for a deep-sea discharge at high pressure.

The SIMAP weathering algorithms include terms to represent these dynamic processes. Technical descriptions of the algorithms used in SIMAP and validations against real spill events are provided in French (1998), French et al. (1999) and French-McCay (2004).

Input specifications for oil types include density, viscosity, pour-point, distillation curve (volume of oil distilled off versus temperature) and the aromatic/aliphatic component ratios within given boiling point ranges. The model calculates a distribution of the oil by mass into the following components:

- Surface-bound or floating oil;
- Entrained oil (non-dissolved oil droplets that are physically entrained by wave action);
- Dissolved hydrocarbons (principally the aromatic and short-chained aliphatic compounds);
- Evaporated hydrocarbons;
- Sedimented hydrocarbons; and
- Decayed hydrocarbons.

8 HYDROCARBON PROPERTIES

Table 8.1 and Table 8.2 summarise the physical properties and boiling point ranges for the condensate and MDO, respectively.

The characteristics for Thylacine condensate used as a proxy for the LOWC were based on a detailed assay. Thylacine condensate has an API of 44.3, a density of 805 kg/m^3 (at 15ºC) and a low viscosity value of 0.875 cP.

The volatile to semi-volatile components (boiling point (BP) < 265 °C), which represent approximately 83% of the whole condensate is likely to evaporate over the first day if exposed to the atmosphere at local temperatures, leaving the less volatile portion (16%) to progressively evaporate more slowly. Only 1% of the condensate is considered persistent.

Thylacine condensate is categorised as a Group I oil (non – persistent oil) according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges.

The heavier components (i.e low volatile portion) of the condensate will tend to entrain into the upper water column during the presence of moderate winds (> 10 knots) and can potentially remain entrained for as long as the winds persist. But can subsequently resurface when the winds ease, and waves abate.

The MDO has a density of 829.1 kg/m^3 (API of 37.6) and a low pour point of -14°C. The low viscosity (4 cP) indicates that this oil will spread quickly when released and will form a thin to low thickness film on the sea surface, increasing the rate of evaporation.

Generally, about 6.0% of the MDO mass should evaporate within the first 12 hours (Boiling point (BP) < 180°C); a further 34.6% should evaporate within the first 24 hours (180°C < BP < 265°C); and an additional 54.4% should evaporate over several days (265°C < BP < 380°C). Approximately 5% (by mass) of MDO will not evaporate, though will decay slowly over time.

The oil is categorised as a group II oil (light-persistent) according to the International Tankers Owners Pollution Federation (ITOPF, 2014) and US EPA/USCG classifications. The classification is based on the specific gravity of hydrocarbons in combination with relevant boiling point ranges.

It is important to note that some heavy components contained the condensate and MDO will have a strong tendency to physically entrain into the upper water column in the presence of moderate winds (i.e. >12 knots) and breaking waves but can re-float to the surface if these energies abate.

Table 8.1 Physical properties for Thylacine condensate and MDO.

Characteristic	Thylacine condensate	Marine Diesel Oil (MDO)
Density (kg/m^3)	805 (at 15˚C)	829.1 (at 25 °C)
API	44.3	37.6
Dynamic viscosity (cP)	9.95 (at 50°C)	4.0 (at 25 °C)
Hydrocarbon property category	Group I	Group II
Hydrocarbon property classification	Non-persistent oil	Light-persistent oil

Table 8.2 Boiling point ranges for Thylacine condensate and MDO.

Characteristics	Non-Persistent			Persistent
	Volatile (%)	*Semi-volatile (%)*	*Low-volatility (%)*	*Residual (%)*
Boiling point (°C)	*<180*	*180-265*	*265-380*	*>380*
Thylacine condensate	64.0	19.0	16.0	1.0
Marine diesel oil (MDO)	6.0	34.6	54.4	5.0

9 THRESHOLDS

The thresholds and their relationship to exposure for the sea surface, shoreline, and water column (entrained and dissolved hydrocarbons) are presented in Sections 9.1 to 9.3. Supporting justifications of the adopted thresholds applied during the study and additional context relating to the area of influence are also provided. It is important to note that the thresholds herein are based on NOPSEMA (2019).

9.1 Floating Oil Exposure

The modelling results can be presented to any levels; therefore, thresholds have been specified (based on scientific literature) to record floating oil exposure to the sea-surface at meaningful levels only, described in the following paragraphs.

The low threshold to assess the potential for floating oil exposure, was 1 g/m^2, which equates approximately to an average thickness of 1 µm, referred to as visible oil. Oil of this thickness is described as rainbow sheen in appearance, according to the Bonn Agreement Oil Appearance Code (Bonn Agreement, 2009; AMSA, 2014). Table 9.1 provides a description of the appearance in relation to exposure zone thresholds used to classify the zones of floating oil exposure. Figure 9.1 shows photographs highlighting the difference in appearance between a rainbow sheen and metallic sheen. The low threshold is considered below levels which would cause environmental harm and it is more indicative of the areas perceived to be affected due to its visibility on the sea surface and potential to trigger temporary closures of areas (i.e., fishing grounds) as a precautionary measure.

Ecological impact has been estimated to occur at 10 g/m^2, which equates to a film thickness of approximately 10 µm or 0.01 mm (French et al. 1996; French-McCay 2009) as this level of fresh oiling has been observed to mortally impact some birds through adhesion of oil to their feathers, exposing them to secondary effects such as hypothermia. The appearance of oil at this average thickness has been described as a metallic sheen (Bonn Agreement, 2009). Concentrations above 10 g/m^2 is also considered the lower actionable threshold, where oil may be thick enough for containment and recovery as well as dispersant treatment (AMSA, 2015).

Oil concentrations on the sea surface of 25 g/m^2 (or greater), would be harmful for all birds that have landed in an oil film due to potential contamination of their feathers, with secondary effects such as loss of temperature regulation and ingestion of oil through preening (Scholten et al., 1996; Koops et al., 2004). The appearance of oil at this thickness is also described as metallic sheen (Bonn Agreement, 2009). For this study the high exposure threshold was set to 50 g/m^2 and above based on NOPSEMA (2019). This threshold can also be used to inform response planning.

Table 9.2 defines the thresholds used to classify the zones of floating oil exposure reported herein.

Table 9.1 The Bonn Agreement Oil Appearance Code.

Code	Description Appearance	Layer Thickness Interval (g/m^2 or µm)	Litres per km^2
1	Sheen (silvery/grey)	0.04 – 0.30	40 – 300
2	Rainbow	0.30 – 5.0	300 – 5,000
3	Metallic	5.0 – 50	5,000 – 50,000
4	Discontinuous True Oil Colour	50 – 200	50,000 – 200,000
5	Continuous True Oil Colour	≥ 200	≥ 200,000

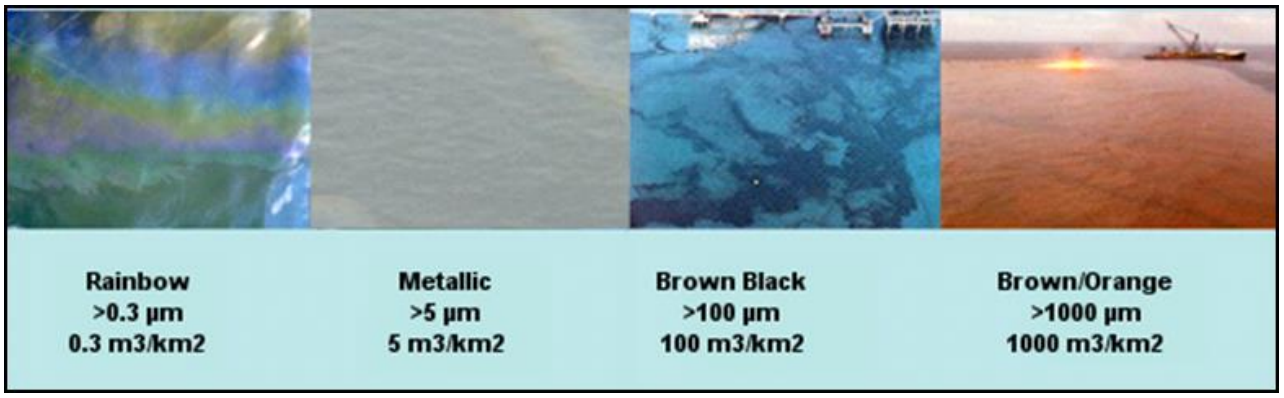


Figure 9.1 Photographs showing the difference between oil colour and thickness on the sea surface (source: adapted from Oil Spill Solutions, 2015).

Table 9.2 Floating oil exposure thresholds used in this report (in alignment with NOPSEMA (2019)).

Threshold level	Floating oil (g/m^2)	Description
Low	1	Approximates range of socio-economic effects and establishes planning area for scientific monitoring
Moderate	10	Approximates lower limit for harmful exposures to birds and marine mammals
High	50*	Approximates surface oil slick and informs response planning

* 50 g/m^2 also used to define the threshold for actionable floating oil.

9.2 Shoreline Accumulation

There are many different types of shorelines, ranging from cliffs, rocky beaches, sandy beaches, mud flats and mangroves, and each of these influences the volume of oil that can remain stranded ashore and its thickness before the shoreline saturation point occurs. For instance, a sandy beach may allow oil to percolate through the sand, thus increasing its ability to hold more oil ashore over tidal cycles and various wave actions than an equivalent area of water; hence oil can increase in thickness onshore over time. A sandy beach shoreline was assumed as the default shoreline type for the modelling in this study, as it allows for the highest carrying capacity of oil (of the available open/exposed shoreline types). Hence the results are considered conservative (i.e., worst-case) given that a large part of the shoreline in the study area (especially the western part of the Joseph Bonaparte Gulf) is characterised by exposed rocky shorelines, with southern parts characterised by tidal mudflats and mangroves and eastern shorelines containing more sandy beaches.

Previous risk assessment studies, French-McCay et al. (2005a; 2005b) used a threshold of 10 g/m^2 to assess the potential for shoreline accumulation. This is a conservative threshold used to define regions of socio-economic impact, such as triggering temporary closures of adjoining fisheries or the need for shore clean-up on beaches or man-made features/amenities (breakwaters, jetties, marinas, etc.). It would equate to approximately 2 teaspoons of hydrocarbon per square meter of shoreline accumulation. The appearance is described as a stain/film. On that basis, the 10 g/m^2 shoreline accumulation threshold has been selected to define the zone of potential “low shoreline accumulation”.

French et al. (1996) and French-McCay (2009) define a shoreline oil accumulation threshold of 100 g/m^2, or above, would potentially harm shorebirds and wildlife (fur-bearing aquatic mammals and marine reptiles on or along the shore) based on studies for sub-lethal and lethal impacts. This threshold has been used in previous environmental risk assessment studies (see French-McCay, 2003; French-McCay et al., 2004, French-McCay et al., 2011; 2012; NOAA, 2013). Additionally, a shoreline concentration of 100 g/m^2, or above, is the minimum concentration that the oil can be effectively cleaned according to AMSA (2015). This threshold equates to approximately ½ a cup of oil per square meter of shoreline accumulation. The

appearance is described as a thin oil coat. Therefore, 100 g/m^2 has been selected to define the zone of potential “moderate shoreline accumulation”.

Observations by Lin & Mendelssohn (1996) demonstrated that loadings of more than 1,000 g/m^2 of hydrocarbon during the growing season would be required to impact marsh plants significantly. Similar thresholds have been found in studies assessing hydrocarbon impacts on mangroves (Grant et al., 1993; Suprayogi & Murray, 1999). This loading equates to approximately 1 litre of hydrocarbon per square meter of shoreline accumulation and the appearance is described as a hydrocarbon cover. A loading of 1,000 g/m^2 has been selected to define the zone of potential “high shoreline accumulation”.

These shoreline accumulation thresholds derived from extensive literature review (outlined in Table 9.3) align with the threshold values for oil spill modelling specified in NOPSEMA (2019).

Table 9.3 Thresholds used to assess shoreline accumulation.

Threshold level	Shoreline loading (g/m^2)	Description
Low (socioeconomic/sublethal)	10	Predicts potential for some socio-economic impact
Moderate	100*	Loading predicts area likely to require clean-up effort
High	1,000	Loading predicts area likely to require intensive clean-up effort

* 100 g/m^2 also used to define the threshold for actionable shoreline oil.

9.3 In-water Exposure

Oil is a mixture of thousands of hydrocarbons of varying physical, chemical, and toxicological characteristics, and therefore, demonstrate varying fates and impacts on organisms. As such, for in-water exposure, the SIMAP model provides separate outputs for dissolved and entrained hydrocarbons from oil droplets. The consequences of exposure to dissolved and entrained components will differ because they have different modes and magnitudes of effect.

Entrained hydrocarbon concentrations were calculated based on oil droplets that are suspended in the water column, though not dissolved. The composition of this oil would vary with the state of weathering (oil age) and may contain soluble hydrocarbons when the oil is fresh. Calculations for dissolved hydrocarbons specifically calculates oil components which are dissolved in water, which are known to be the primary source of toxicity exerted by oil.

A complicating factor that should be considered when assessing the consequence of dissolved and entrained oil distributions is that there will be some areas where both physically entrained oil droplets and dissolved hydrocarbons co-exist. Higher concentrations of each will tend to occur close to the source where sea conditions can force mixing of relatively unweathered oil into the water column, resulting in more rapid dissolution of soluble compounds.

9.3.1 Dissolved Hydrocarbons

Laboratory studies have shown that dissolved hydrocarbons exert most of the toxic effects of oil on aquatic biota (Carls et al., 2008; Nordtug et al., 2011; Redman, 2015). The mode of action is a narcotic effect, which is positively related to the concentration of soluble hydrocarbons in the body tissues of organisms (French-McCay, 2002). Dissolved hydrocarbons are taken up by organisms directly from the water column by absorption through external surfaces and gills, as well as through the digestive tract. Thus, soluble hydrocarbons are termed “bioavailable”.

Hydrocarbon compounds vary in water-solubility and the toxicity exerted by individual compounds is inversely related to solubility, however bioavailability will be modified by the volatility of individual compounds (Nirmalakhandan & Speece, 1988; Blum & Speece, 1990; McCarty, 1986; McCarty et al., 1992a, 1992b;

McCarty & Mackay, 1993; Verhaar et al., 1992, 1999; Swartz et al., 1995; French-McCay, 2002; McGrath and Di Toro, 2009). Of the soluble compounds, the greatest contributor to toxicity for water-column and benthic organisms are the lower-molecular-weight aromatic compounds, which are both volatile and soluble in water. Although they are not the most water-soluble hydrocarbons within most oil types, the polynuclear aromatic hydrocarbons (PAHs) containing 2-3 aromatic ring structures typically exert the largest narcotic effects because they are semi-soluble and not highly volatile, so they persist in the environment long enough for significant accumulation to occur (Anderson et al., 1974, 1987; Neff & Anderson, 1981; Malins & Hodgins, 1981; McAuliffe, 1987; NRC, 2003). The monoaromatic hydrocarbons (MAHs), including the BTEX compounds (benzene, toluene, ethylbenzene, and xylenes), and the soluble alkanes (straight chain hydrocarbons) also contribute to toxicity, but these compounds are highly volatile, so that their contribution will be low when oil is exposed to evaporation and higher when oil is discharged at depth where volatilisation does not occur (French-McCay, 2002).

French-McCay (2002) reviewed available toxicity data, where marine biota was exposed to dissolved hydrocarbons prepared from oil mixtures, finding that 95% of species and life stages exhibited 50% population mortality (LC_{50}) between 6 and 400 ppb total PAH concentration after 96 hrs exposure, with an average of 50 ppb. Hence, concentrations lower than 6 ppb total PAH value should be protective of 97.5% of species and life stages even with exposure periods of days (at least 96 hours). Early life-history stages of fish appear to be more sensitive than older fish stages and invertebrates.

Exceedances of 10, 50 or 400 ppb over a 1 hour timestep (see Table 9.4) were applied in this study to indicate the increasing potential for sub-lethal to lethal toxic effects (or low to high), based on NOPSEMA (2019).

9.3.2 Entrained Hydrocarbons

Entrained hydrocarbons consist of oil droplets that are suspended in the water column and insoluble. Insoluble compounds in oil cannot be absorbed from the water column by aquatic organisms, therefore they are not bioavailable through absorption of compounds from the water. Exposure to these compounds would require routes of uptake other than absorption of soluble compounds. The route of exposure of organisms to whole oil alone include direct contact with tissues of organisms and uptake of oil by direct consumption, with potential for biomagnification through the food chain (NRC, 2003).

The 10 ppb threshold corresponds generally with the lowest trigger levels for chronic exposure for entrained hydrocarbons in the ANZECC & ARMCANZ (2000) water quality guidelines. Due to the requirement for relatively long exposure times (> 24 hours) for these concentrations to accumulate, they are likely to be more meaningful for juvenile fish, larvae and planktonic organisms that might be entrained (or otherwise moving) within the entrained plumes, or when entrained hydrocarbons adhere to organisms or are trapped against a shoreline for periods of several days or more.

This exposure zone is not considered to be of significant biological impact and is therefore outside the adverse exposure zone. This exposure zone represents the area contacted by the spill. This area does not define the area of influence as it is considered that the environment will not be affected by the entrained hydrocarbon at this level.

Thresholds of 10 ppb and 100 ppb were applied over a 1 hour time exposure (Table 9.4), to cover the range of thresholds outlined in ANZECC & ARMCANZ (2000) water quality guidelines and is per NOPSEMA (2019).

Table 9.4 Dissolved and entrained hydrocarbon exposure values assessed over a 1-hour time step, as per NOPSEMA (2019).

	Exposure level	In-water threshold (ppb)	Description
Dissolved hydrocarbons	Low	10	Establishes planning area for scientific monitoring based on potential for exceedance of water quality triggers
	Moderate	50	Approximates potential toxic effects, particularly sublethal effects to sensitive species
	High	400	Approximates toxic effects including lethal effects to sensitive species
Entrained hydrocarbons	Low	10	Establishes planning area for scientific monitoring based on potential for exceedance of water quality triggers
	High	100	As appropriate given oil characteristics for informing risk evaluation

9.4 Dispersion

A horizontal dispersion coefficient of 10 m^2/s was used to account for dispersive processes acting at the surface that are below the scale of resolution of the input current field, based on typical values for open waters (Okubo, 1971). Dispersion rates within the water column (applicable for entrained and dissolved plumes of hydrocarbons) were specified at 1 m^2/s, based on empirical data for the dispersion of hydrocarbon plumes (King & McAllister, 1998).

10 RECEPTORS

A range of environmental receptors and shorelines were assessed for floating oil exposure, shoreline contact and water column exposure (entrained and dissolved hydrocarbons) as part of the study (see Figure 10.1 to Figure 10.12). Receptor categories are shown in Table 10.1 which includes coastal and offshore islands grouped as shorelines. All other sensitive receptors other than submerged reefs, shoals and banks (RSB) were sourced from Australian Government Department of Agriculture, Water and the Environment (http://www.environment.gov.au/). Probabilities of exposure were separately calculated for each sensitive receptor area and have been tabulated.

Table 10.1 Summary of receptors assessed for potential oil exposure.

Receptor Category	Acronym	Hydrocarbon Exposure and Accumulation Assessment		
		Floating oil	Water Column	Shoreline
Australian Marine Park	AMP	✓	✓	×
Biologically Important Area	BIA	✓	✓	×
Conservation Park	CP	✓	✓	×
Interim Biogeographic Regionalisation for Australia bioregions	IBRA	✓	✓	×
Integrated marine and coastal regionalisation areas	IMCRA	✓	✓	×
Marine National Park	MNP	✓	✓	×
Marine Park	MP	✓	✓	×
Marine Sanctuary	MS	✓	✓	×
National Park	NP	✓	✓	×
National Parks Act Schedule 4 park or reserve	NPS4	✓	✓	×
Nature Reserve	NR	✓	✓	×
Ramsar Sites	Ramsar	✓	✓	×
Reefs, Shoals and Banks	RSB	✓	✓	×
Key Ecological Feature	KEF	✓	✓	×
State Waters	State Waters	✓	✓	×
Shorelines	Shore	✓ (Reported as: Nearshore Waters)	✓ (Reported as: Nearshore Waters)	✓

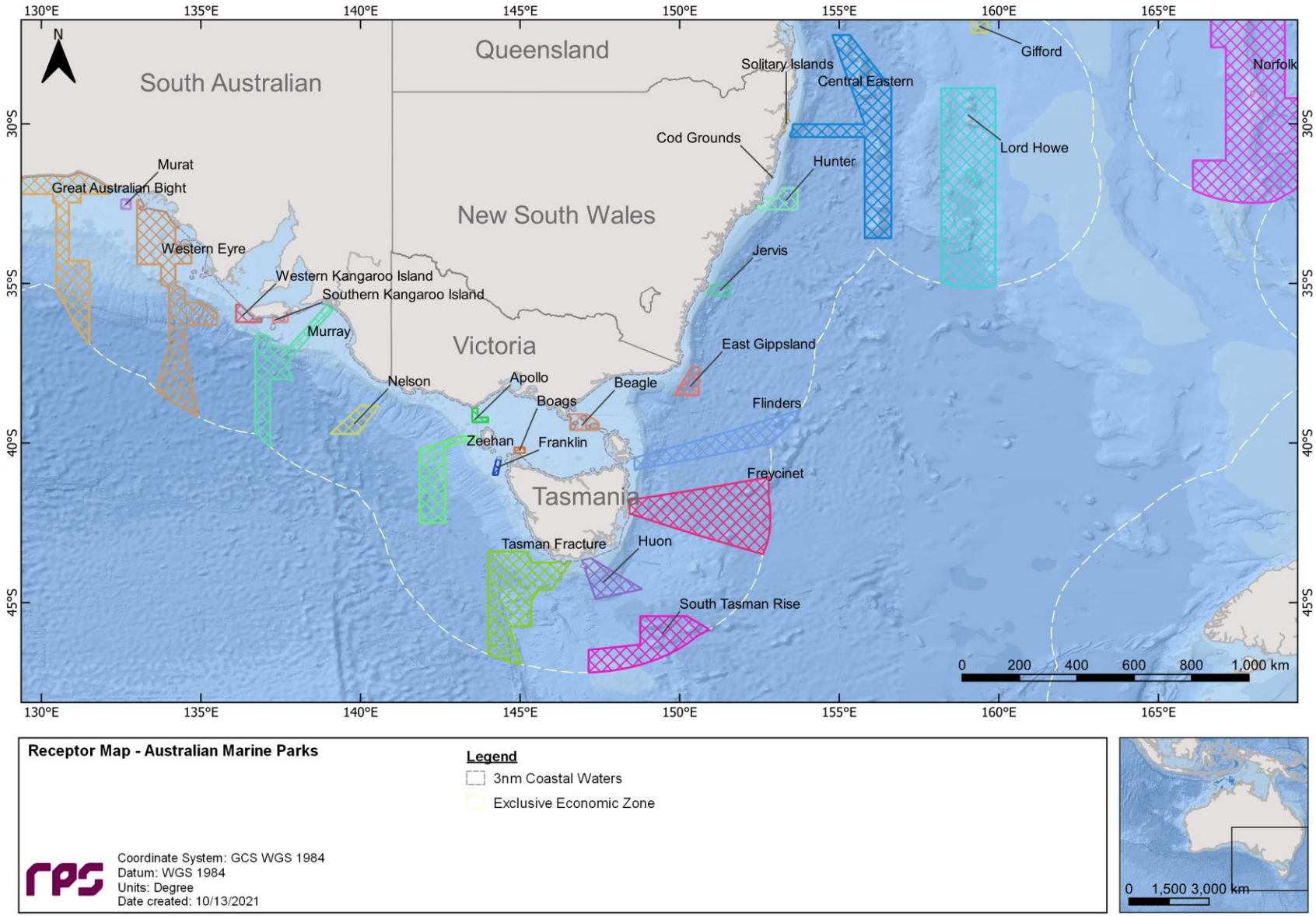


Figure 10.1 Receptor map for Australian Marine Parks (AMP).

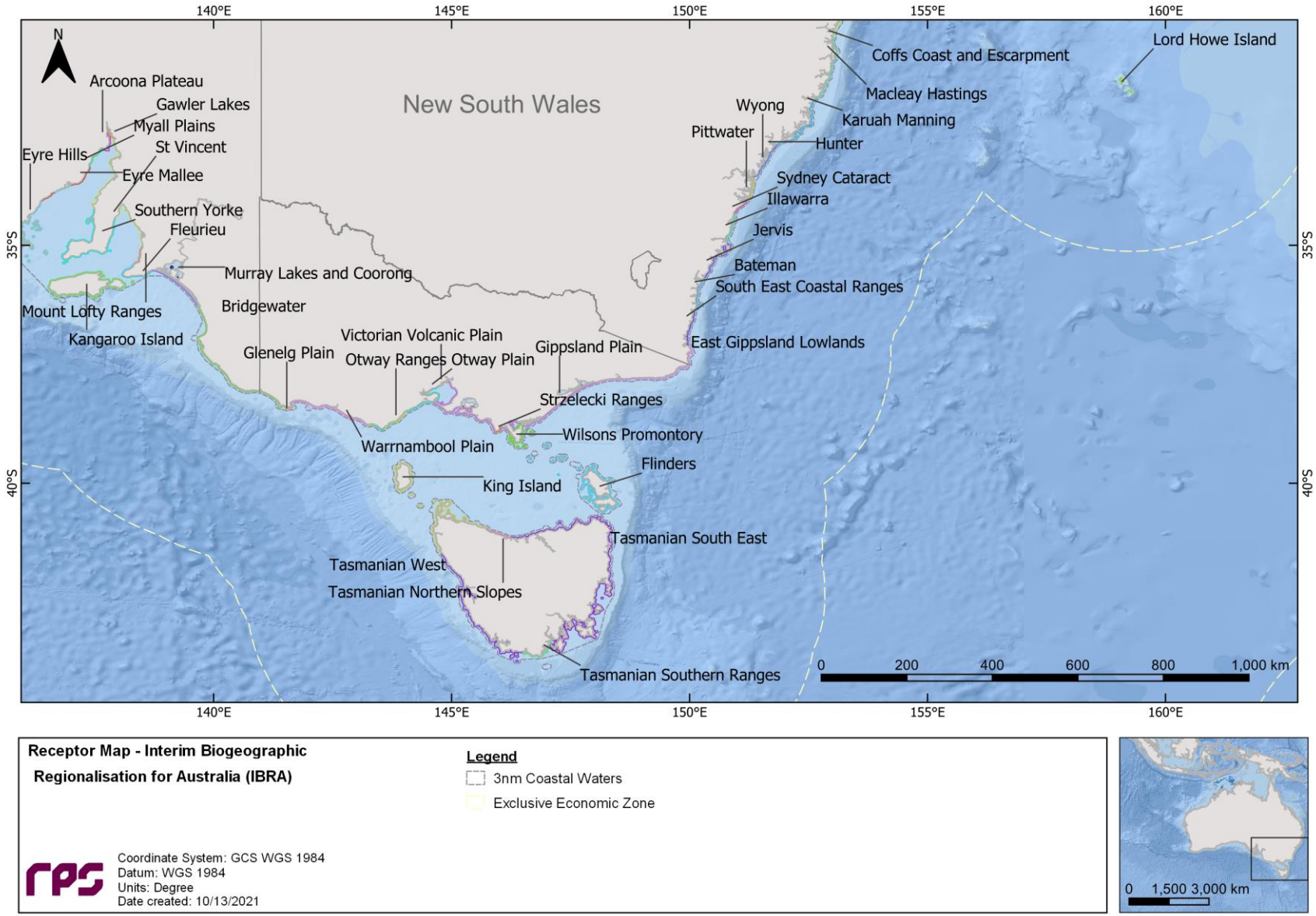


Figure 10.2 Receptor map for the Interim Biogeographic Regionalisation for Australia (IBRA) bioregions.

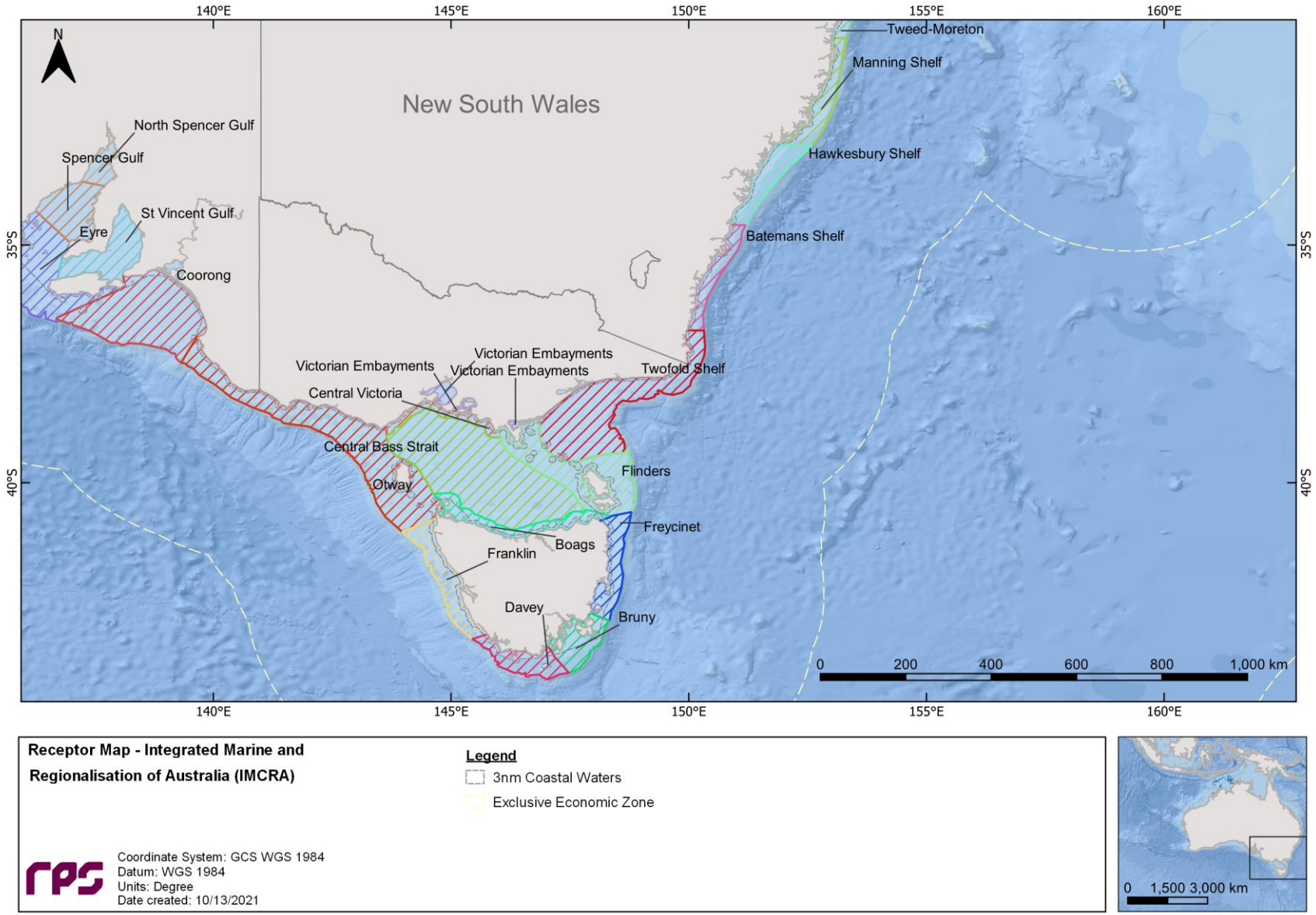


Figure 10.3 Receptor map for integrated marine and coastal regionalisation (IMCRA) areas.

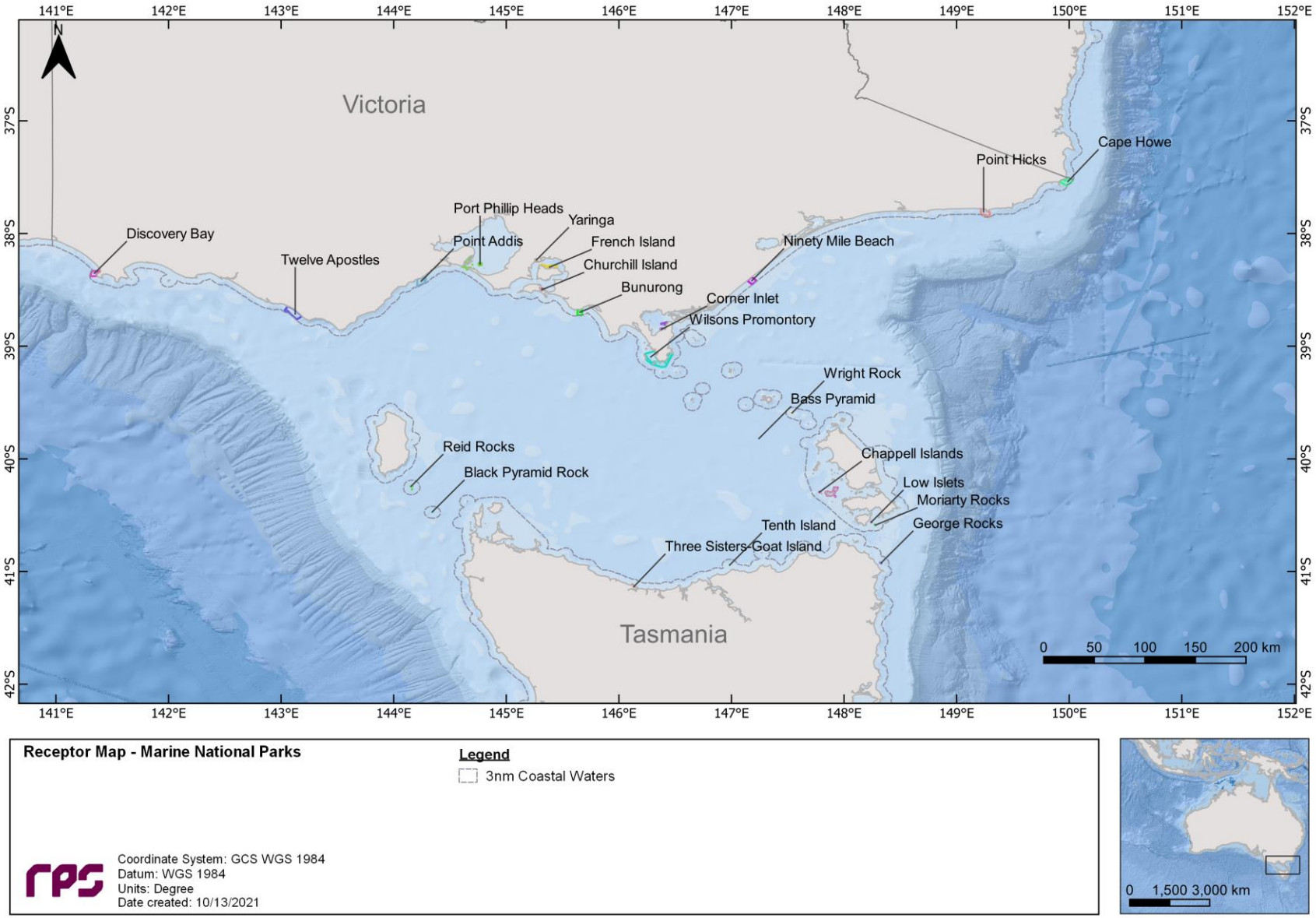


Figure 10.4 Receptor map for Marine National Parks (MNP).

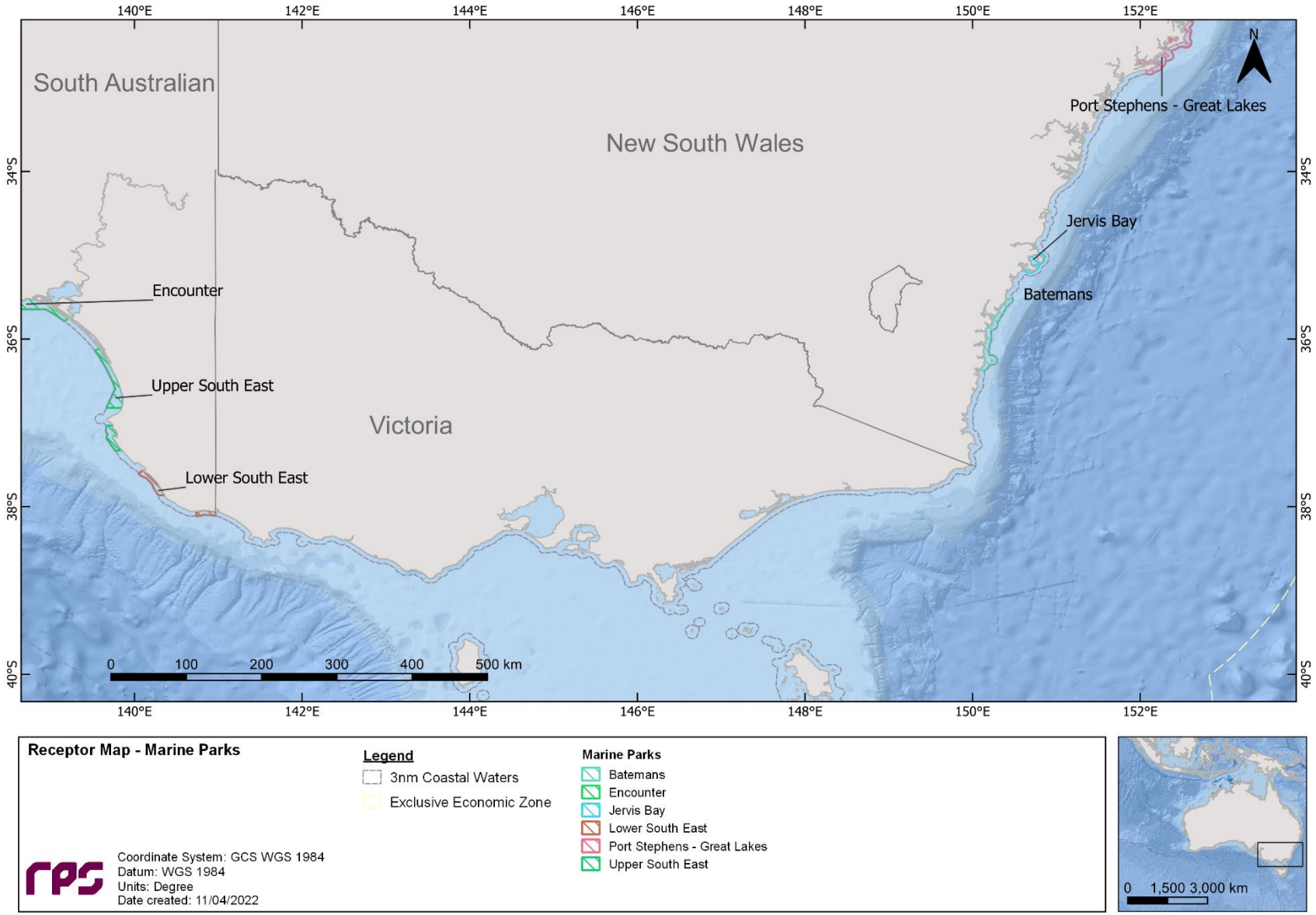


Figure 10.5 Receptor map for Marine Parks (MP).

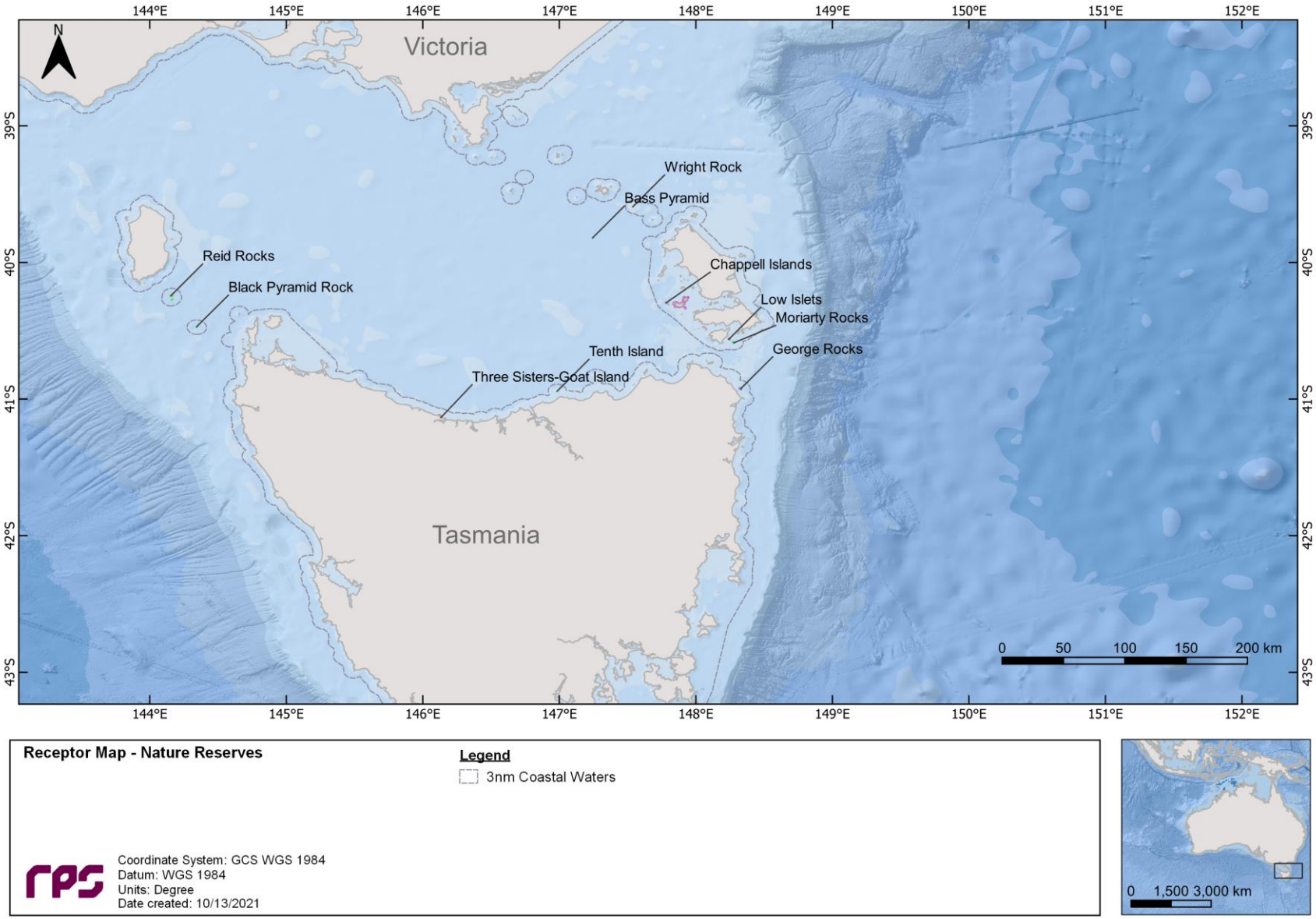


Figure 10.6 Receptor map for Nature Reserves (NR).

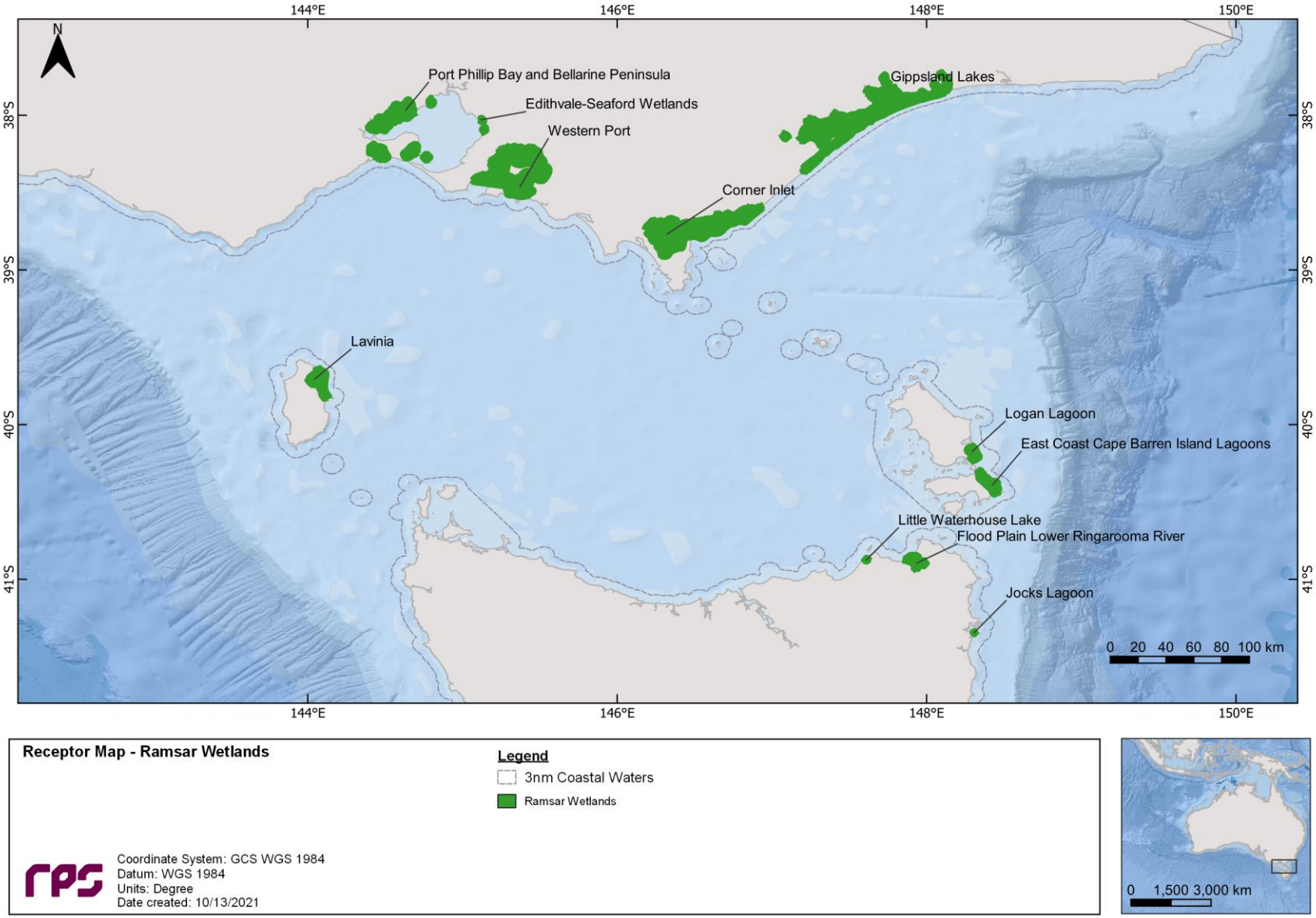


Figure 10.7 Receptor map for Ramsar Sites (Ramsar).

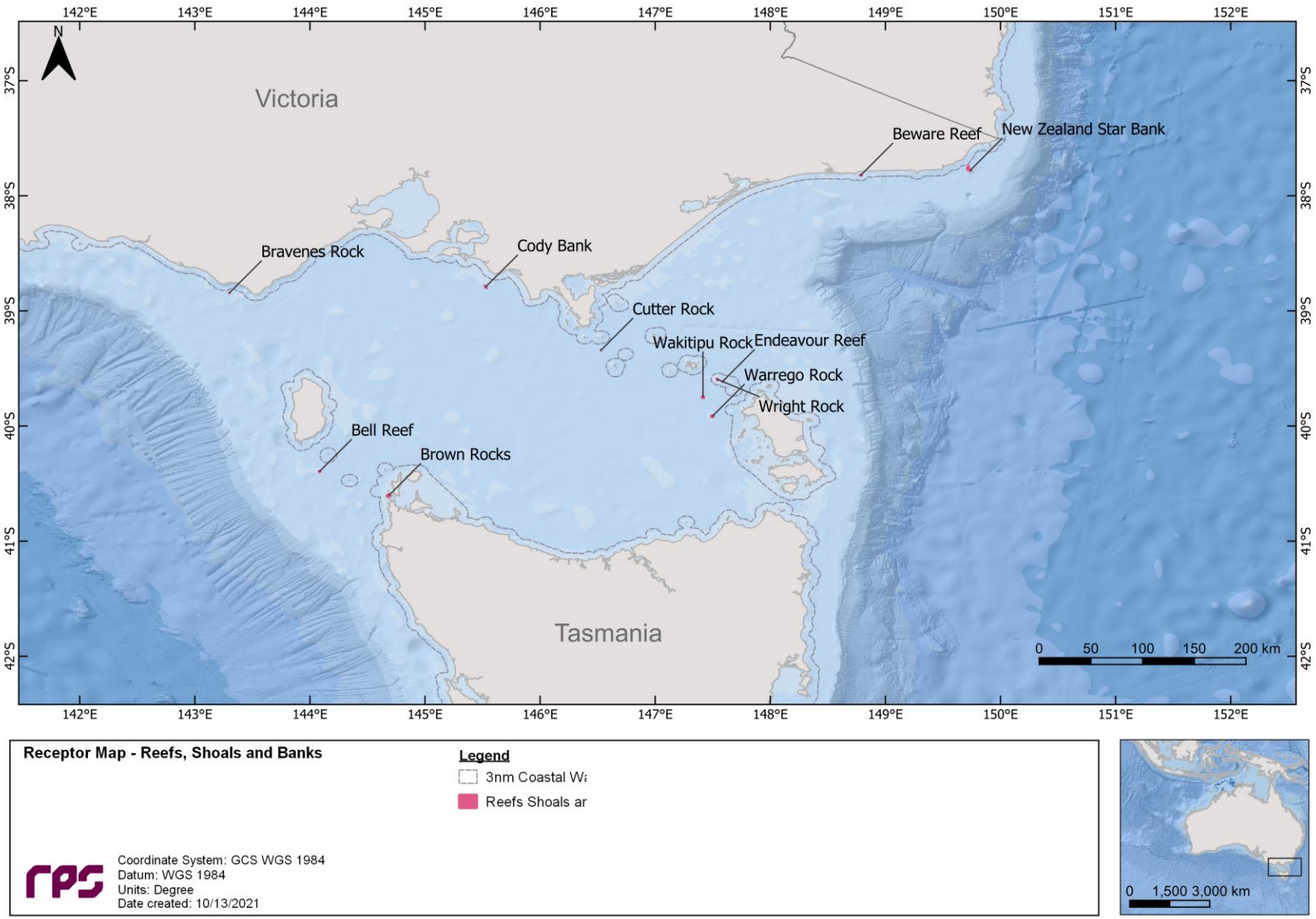


Figure 10.8 Receptor map for Reefs, Shoals and Banks (RSB).

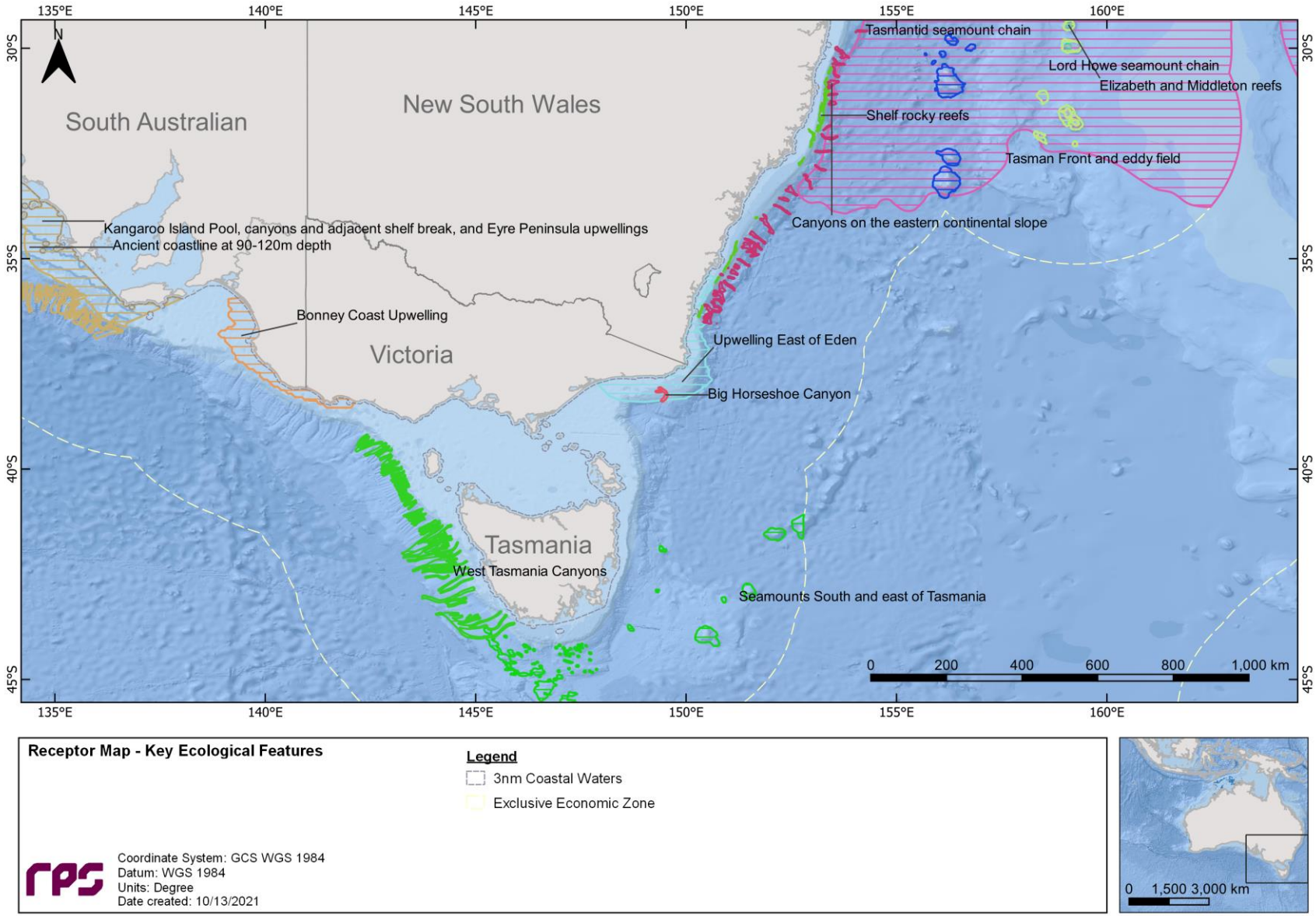


Figure 10.9 Receptor map for Key Ecological Features (KEF).

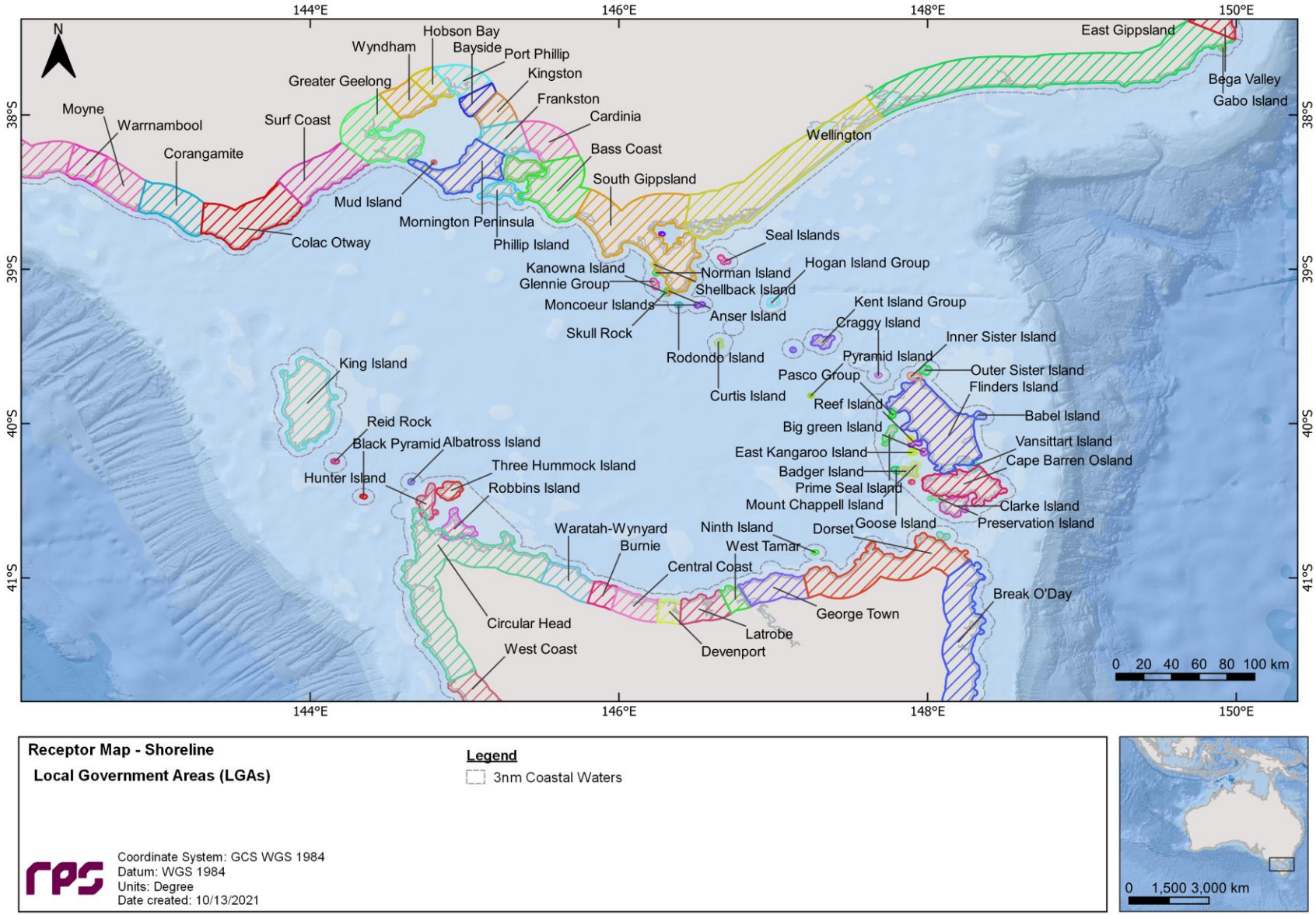


Figure 10.10 Receptor map for shorelines (1 of 3).

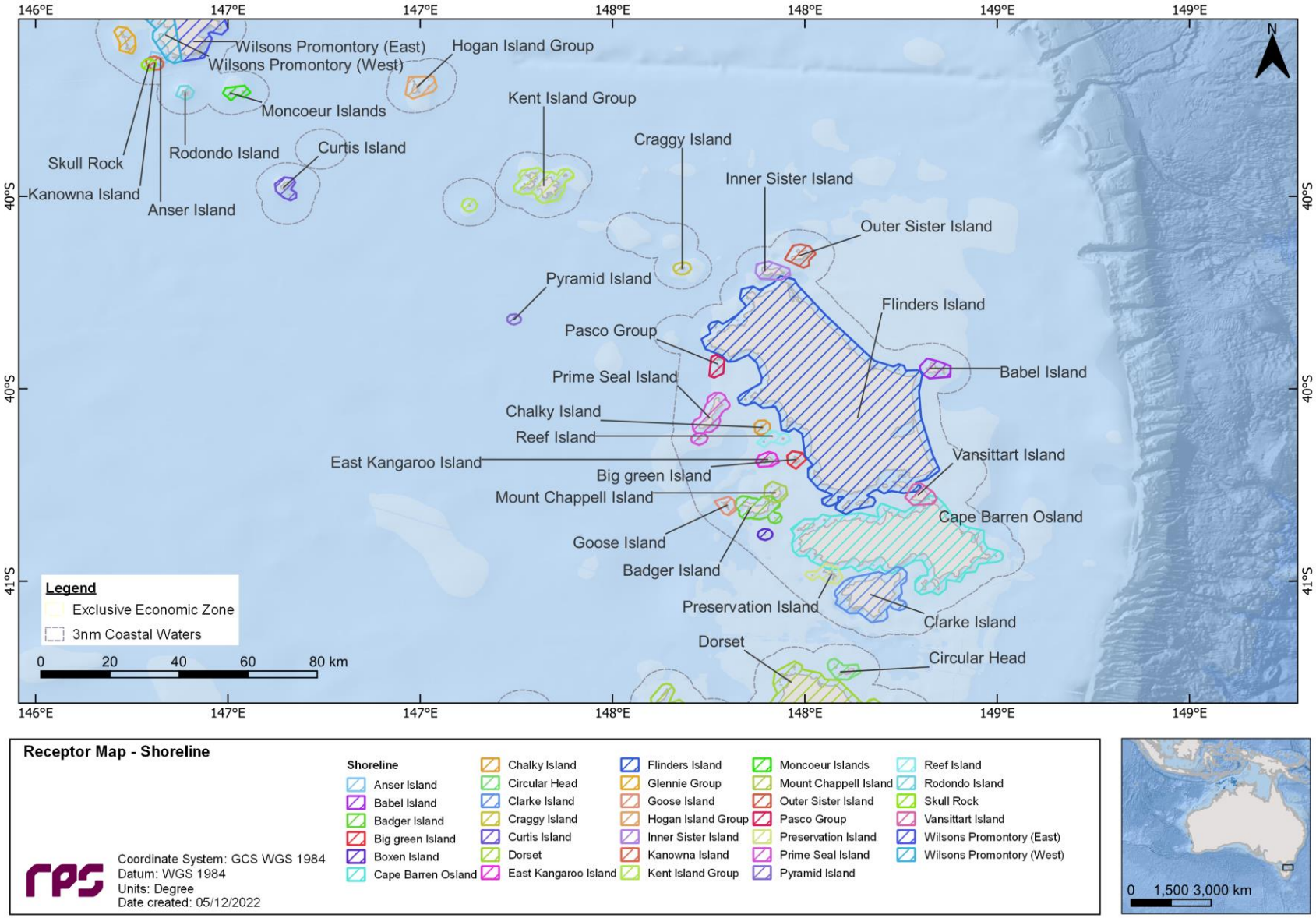


Figure 10.11 Receptor map for shorelines (2 of 3).

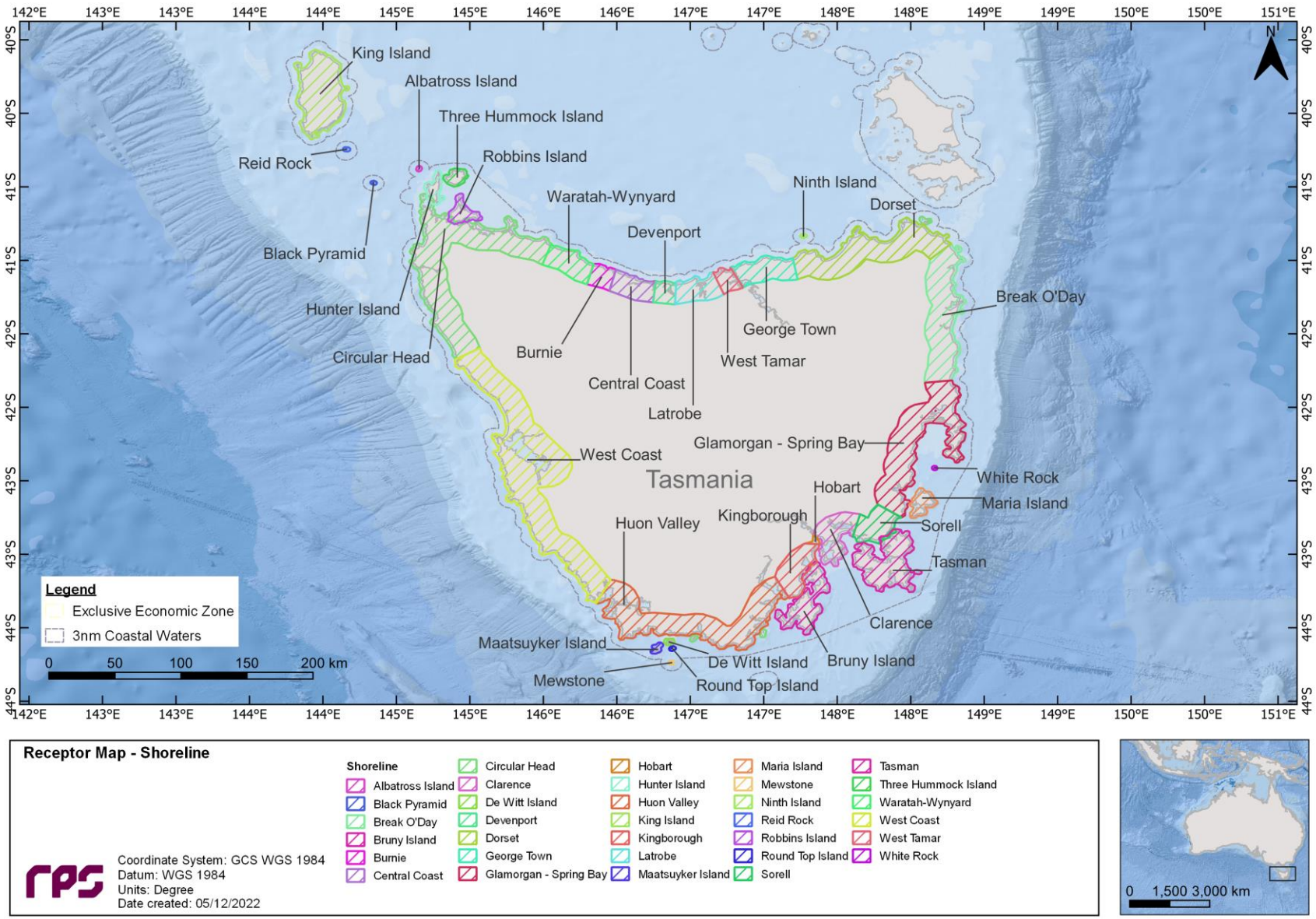


Figure 10.12 Receptor map for shorelines (3 of 3).

11 MODEL SETTINGS

Table 11.1 provides a summary of the spill modelling inputs and thresholds.

The potential risk of exposure to the surrounding waters and contact to shorelines was assessed for summer (October to March) and winter conditions (April to September).

The simulation length was carefully selected based on extensive sensitivity testing. During the sensitivity testing process, sample spill simulations were run for longer than intended durations. Upon completion of the spill simulations, the results were carefully assessed to examine the persistence of the hydrocarbon (i.e. whether the maximum evaporative loss has been achieved for the period modelled; and whether a substantial volume of hydrocarbons remain in the water column (if any)) in conjunction with the extent of floating oil exposure based on reporting thresholds. Once there was agreement between the two factors (i.e. the final fate of hydrocarbon is accounted for, and the full exposure area is identified) the simulation length was deemed appropriate.

Table 11.1 Summary of the of the oil spill modelling inputs and thresholds.

Parameter	Scenario 1 – Subsea LOWC	Scenario 2 – Vessel collision
Number of release locations	4	4
Number of randomly selected spill start times per location and per season	100	
Model period	Summer (October to March) and winter conditions (April to September)	
Oil type	Thylacine condensate	MDO
Spill release rate (m^3/day)	1,549	-
Total Spill volume (m^3)	139,400	350
Release type	Subsea	Surface
Release duration	90 days	6 hours
Simulation length (days)	120	30
Floating oil exposure thresholds (g/m^2)	1 (low exposure) 10 (moderate exposure) 50 (high exposure)	
Shoreline accumulation thresholds (g/m^2)	10 (low potential exposure) 100 (moderate potential exposure) 1,000 (high potential exposure)	
Dissolved hydrocarbon exposure thresholds (ppb)	10 (10 ppb x 1 hr, potential low exposure) 50 (50 ppb x 1 hr, potential moderate exposure) 400 (400 ppb x 1 hr, potential high exposure)	
Entrained hydrocarbon exposure thresholds (ppb)	10 (10 ppb x 1 hr, potential low exposure) 100 (100 ppb x 1 hr, potential high exposure)	

12 CALCULATION OF EXPOSURE RISK

The stochastic sampling approach provides an objective measure of the possible outcomes of a spill because randomly selected environmental conditions with more simulations will tend to use the most commonly occurring conditions, while more unusual conditions will be represented less frequently.

During each simulation, the SIMAP model records the location (by latitude, longitude and depth) of each of the particles (representing a given mass of oil) on or in the water column, at regular time steps. For any particles that contact a shoreline, the model records the accumulation of oil mass that arrives on each section of shoreline over time, less any mass that is lost to evaporation and/or subsequent removal by current and wind forces.

The collective records from all simulations are then analysed by dividing the study region into a three-dimensional grid. For oil particles that are classified as being at the water surface (floating oil), the sum of the mass in all oil particles (including accounting for spreading and dispersion effects) located within a grid cell, divided by the area of the cell provides estimates of the concentration of oil in that grid cell, at each time step. For entrained and dissolved hydrocarbons particles, concentrations are calculated at each time step by summing the mass of particles within a grid cell and dividing by the volume of the grid cell.

The concentrations of oil calculated for each grid cell, at each time step, are then analysed to determine whether concentration estimates exceed defined threshold concentrations over time.

Risks are then summarised as follows:

- The probability of exposure to a location is calculated by dividing the number of spill simulations where any contact occurred above a specified threshold at that location by the total number of replicate spill simulations. For example, if contact occurred at a location (above a specified threshold) during 21 out of 100 simulations, a probability of exposure of 21% is indicated;

- The minimum potential time to a shoreline location is calculated by the shortest time over which oil at a concentration above a threshold was calculated to travel from the source to the location in any of the replicate simulations;

- The maximum potential concentration of oil predicted for each shoreline section is the greatest mass per m^2 of shoreline calculated to strand at any location within that section during any of the replicate simulations; and

- Similar treatments were undertaken for entrained and dissolved hydrocarbon exposures.

Thus, the minimum time to shoreline and the maximum potential concentration estimates indicate the worst potential outcome of the modelled spill scenario for each section of shoreline. However, the average over the replicates presents an average of the potential outcomes, in terms of hydrocarbons that could strand.

Note also that results quoted for sections of shoreline are derived for any individual location within that section, as a conservative estimate. Locations will represent shoreline lengths of the order of ~1 km, while sections or regions will represent shorelines spanning tens to hundreds of kilometres. The maximum potential concentrations quoted will not necessarily occur over the full extent of each section, therefore multiplying the maximum concentration estimates by the full area of the section is not recommended as this will greatly overestimate the total volume expected on that section.

13 LOCATION 1 LOWC RESULTS

This scenario examined the potential exposure following a subsea LOWC at Location 1. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 13.1 presents the EMBA, Section 13.2 shows the seasonal (or stochastic) results, while Section 13.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

13.1 EMBA

Figure 13.1 shows the EMBA for Location 1. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

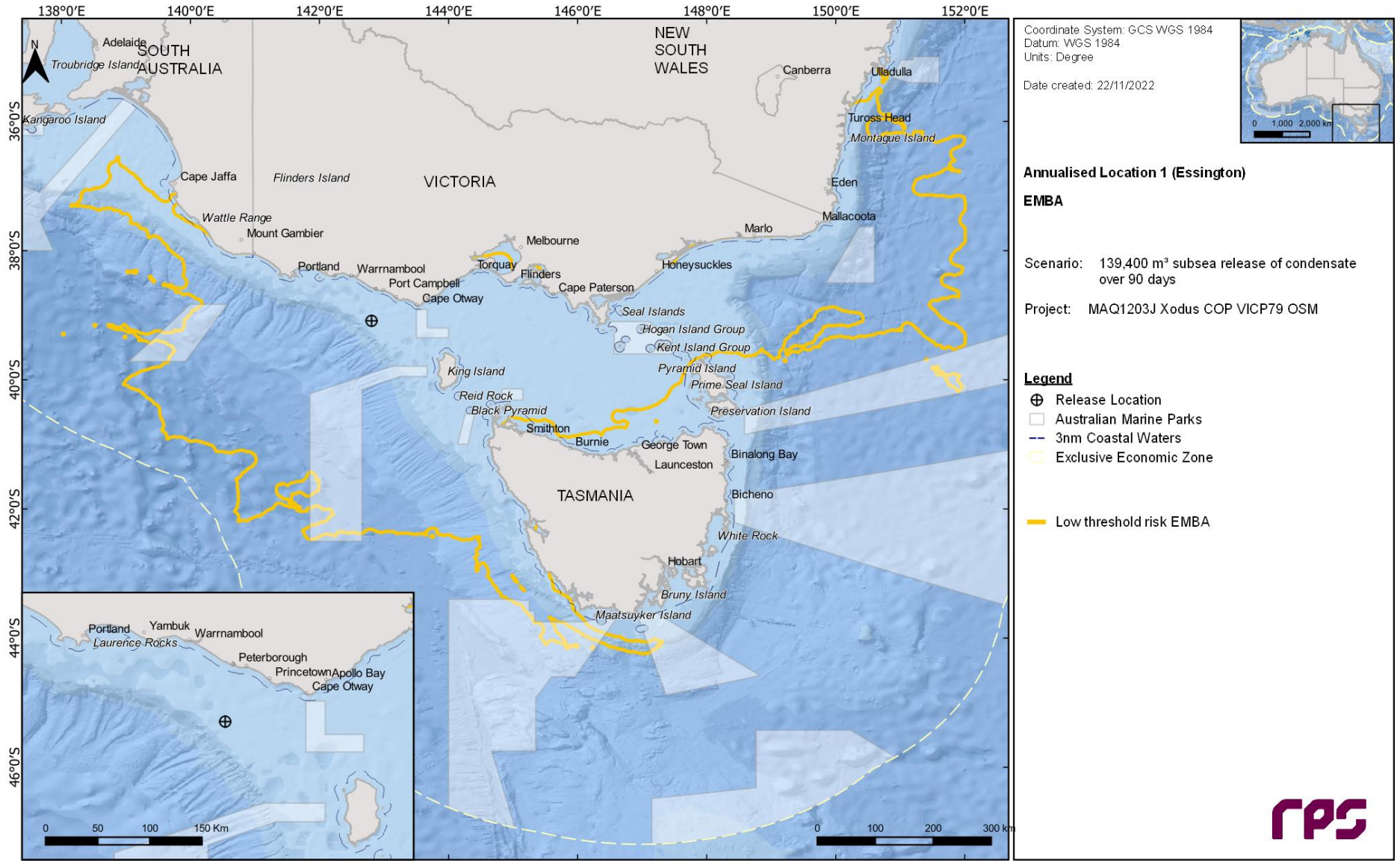


Figure 13.1 Predicted low threshold EMBA from a subsea LOWC at Location 1. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

13.2 Stochastic Analysis

13.2.1 Floating Oil Exposure

Table 13.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 13.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 13.2 to Figure 13.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 1,323 km^2 and 1,072 km^2, respectively.

Table 13.1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	190.3	11.6	-
	Maximum distance (km) from release location (99^{th} percentile)	116.1	11.1	-
	Direction	E	ENE	-
Winter	Maximum distance (km) from release location	306.7	9.3	-
	Maximum distance (km) from release location (99^{th} percentile)	133.5	9.3	-
	Direction	E	ESE	-

Table 13.2 Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 1 for each season. Results were calculated from 100 spill simulations per season.

	Receptor	Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	94	-	-	2.67	-	-	100	-	-	1.42	-	-
	Zeehan	5	-	-	41.75	-	-	19	-	-	10.5	-	-
IBRA	Gippsland Plain	-	-	-	-	-	-	8	-	-	13.33	-	-
	King Island	4	-	-	16.13	-	-	24	-	-	3.83	-	-
	Otway Plain	14	-	-	8.33	-	-	24	-	-	3.71	-	-
	Otway Ranges	6	-	-	44.21	-	-	13	-	-	15.33	-	-
	Strzelecki Ranges	-	-	-	-	-	-	1	-	-	47.88	-	-
	Warrnambool Plain	-	-	-	-	-	-	1	-	-	21.88	-	-
	Wilsons Promontory	-	-	-	-	-	-	6	-	-	24.54	-	-
IMCRA	Central Bass Strait	82	-	-	3.21	-	-	99	-	-	1.63	-	-
	Central Victoria	74	-	-	4.17	-	-	93	-	-	1.83	-	-
	Flinders	-	-	-	-	-	-	13	-	-	13.33	-	-
	Otway	100	100	-	0.04	0.08	-	100	100	-	0.04	0.08	-
	Twofold Shelf	-	-	-	-	-	-	-	-	-	-	-	-
KEF	Bonney Coast Upwelling	-	-	-	-	-	-	1	-	-	19.63	-	-
	West Tasmania Canyons	79	-	-	2	-	-	37	-	-	7.83	-	-
MNP	Twelve Apostles	-	-	-	-	-	-	3	-	-	60.29	-	-
	Wilsons Promontory	-	-	-	-	-	-	3	-	-	44.04	-	-
MS	Marengo Reefs	-	-	-	-	-	-	1	-	-	68.29	-	-
Nearshore Waters	Colac Otway	16	-	-	8.33	-	-	28	-	-	3.71	-	-
	King Island	4	-	-	16.13	-	-	24	-	-	3.83	-	-
NPS4	Wilsons Promontory Marine Park	-	-	-	-	-	-	8	-	-	13.33	-	-
State Waters	Tasmania	4	-	-	16.13	-	-	24	-	-	3.83	-	-
	Victoria	27	-	-	4.04	-	-	61	-	-	3	-	-

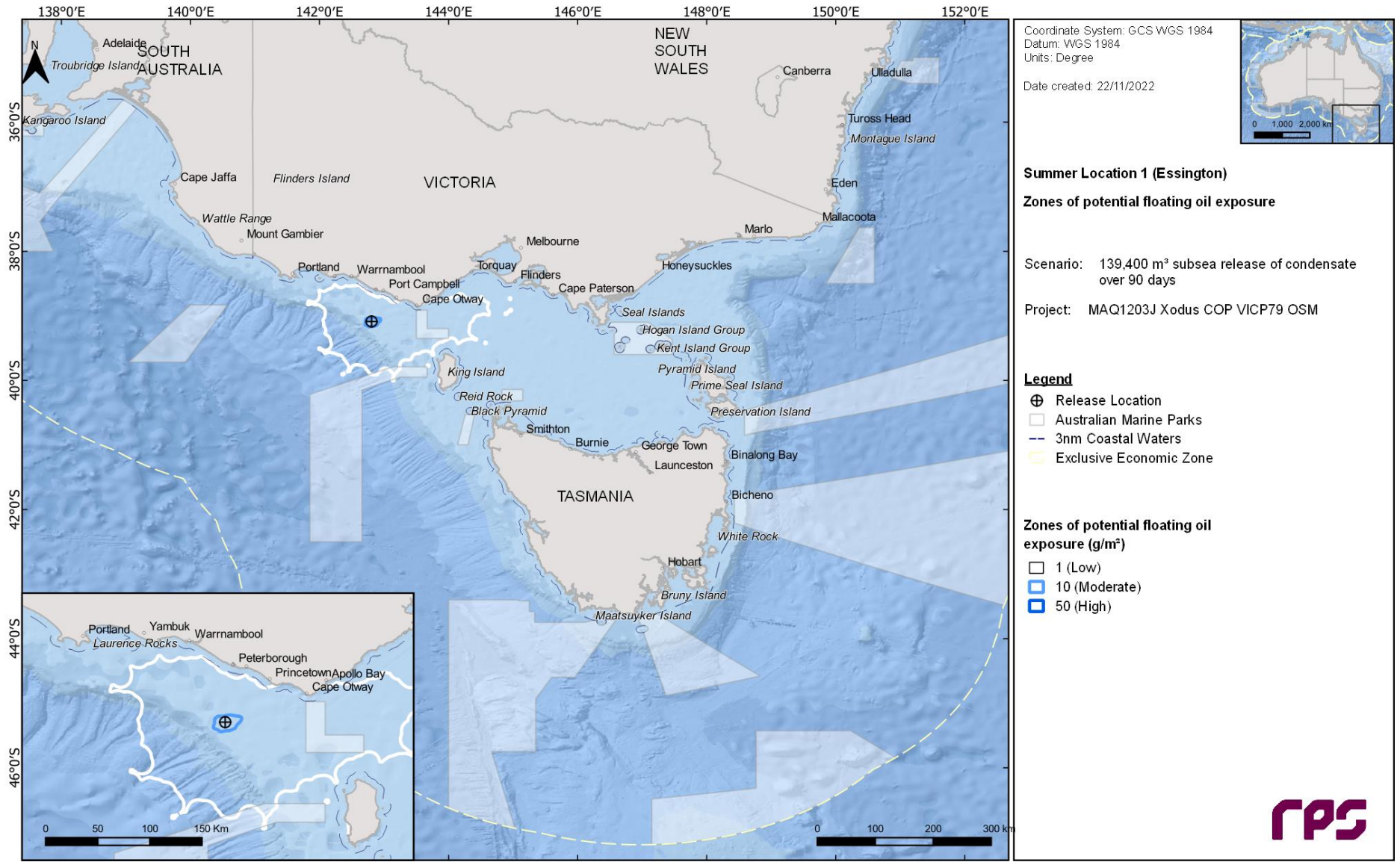


Figure 13.2 Zones of potential floating oil exposure from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

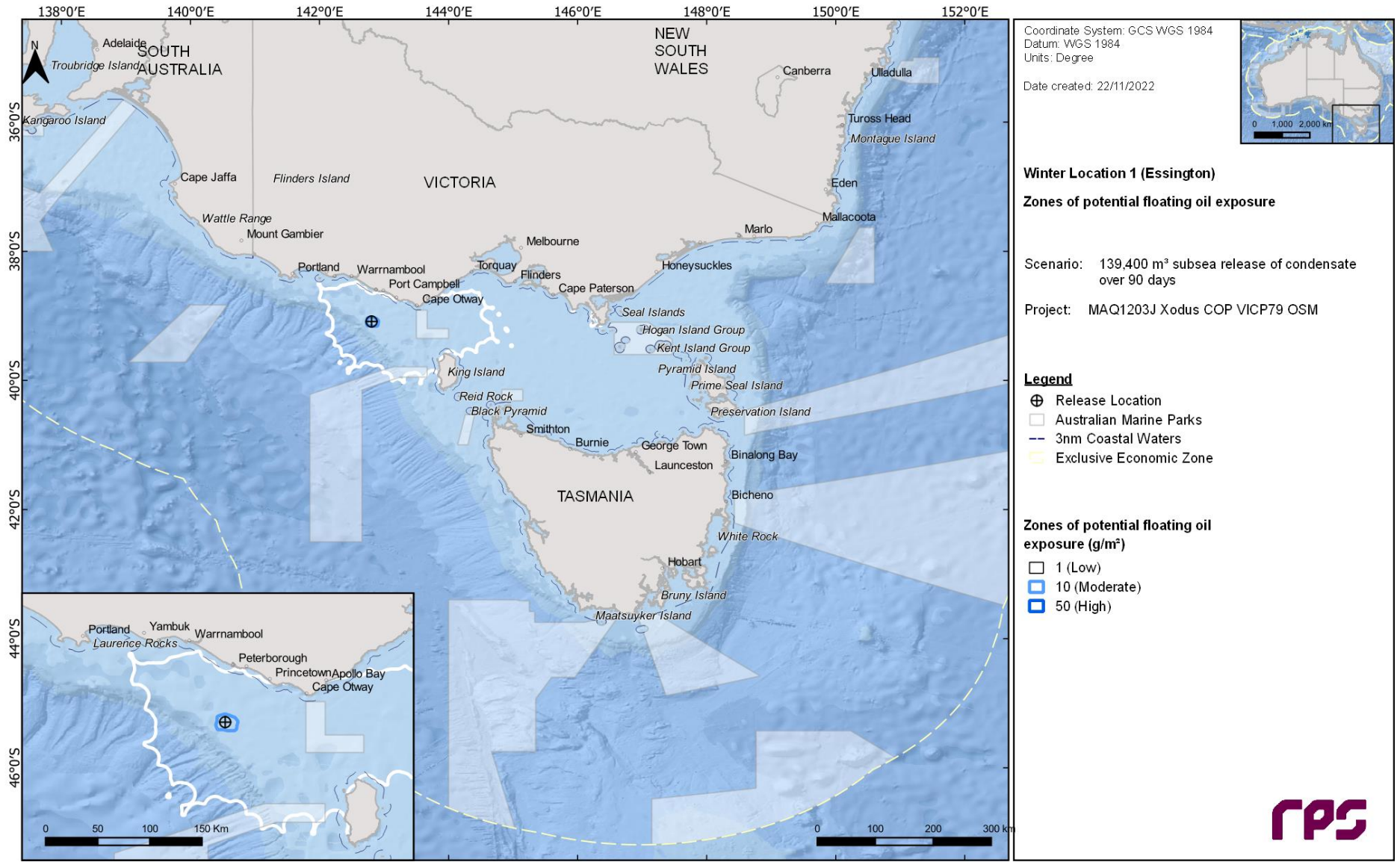


Figure 13.3 Zones of potential floating oil exposure from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.2.2 Shoreline Accumulation

Table 13.3 summarises the predicted accumulation on any shoreline during each season.

Table 13.4 and Table 13.5 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 13.4 and Figure 13.5.

Table 13.3 Summary of accumulation on any shoreline from a subsea LOWC at Location 1 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	91	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	6.00	4.08
Maximum volume of hydrocarbons ashore (m^3)	38.6	51.9
Average volume of hydrocarbons ashore (m^3)	7.1	13
Maximum length of the shoreline at **10 g/m^2** (km)	105	158
Average shoreline length (km) at **10 g/m^2** (km)	23.4	53.1
Maximum length of the shoreline at **100 g/m^2** (km)	6	11
Average shoreline length (km) at **100 g/m^2** (km)	2.7	3.7
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 13.4 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 1 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	10	-	-	76.92	-	-	17	23	< 0.1	0.5	1.2	-	-	1.9	-	-
Bass Coast	9	-	-	27.83	-	-	12	19	< 0.1	1.3	1.4	-	-	4.8	-	-
Bega Valley	6	-	-	74.96	-	-	19	34	< 0.1	0.9	2.2	-	-	2.9	-	-
Circular Head	-	-	-	-	-	-	-	-	< 0.1	0.4	-	-	-	-	-	-
Colac Otway	55	17	-	6	8.71	-	30	222	3.7	24.4	15	3.1	-	62.1	4.8	-
Corangamite	33	1	-	12.29	78.04	-	21	100	0.6	3.3	4.1	1	-	14.3	1	-
Curtis Island	-	-	-	-	-	-	-	-	< 0.1	0.2	-	-	-	-	-	-
East Gippsland	3	-	-	72.13	-	-	23	30	< 0.1	0.7	1.3	-	-	1.9	-	-
Glenelg	8	3	-	18.33	31.46	-	19	138	0.3	6.4	10.3	1	-	25.8	1	-
Glennie Group	9	-	-	74.13	-	-	14	20	< 0.1	0.9	1.6	-	-	4.8	-	-
Grant	1	-	-	42.88	-	-	18	18	0.2	0.2	1	-	-	1	-	-
Greater Geelong	3	-	-	30.79	-	-	12	18	< 0.1	0.7	2.2	-	-	2.9	-	-
Hogan Island Group	2	-	-	96.46	-	-	20	21	< 0.1	0.4	1	-	-	1	-	-
Hunter Island	1	-	-	70.00	-	-	10	10	0.2	0.2	1	-	-	1	-	-
Kanowna Island	9	-	-	75.75	-	-	22	48	< 0.1	0.9	1.4	-	-	2.9	-	-
Kent Island Group	3	-	-	86.83	-	-	12	13	< 0.1	0.3	1.3	-	-	1.9	-	-
King Island	62	9	-	12.46	16.13	-	22	296	1.6	10.2	5.9	1.1	-	30.6	1.9	-
Lady Julia Percy Island	2	-	-	29.54	-	-	21	22	< 0.1	0.2	1	-	-	1	-	-
Laurence Rocks	3	-	-	21.42	-	-	16	23	< 0.1	0.4	2.2	-	-	2.9	-	-
Moncoeur Islands	8	-	-	61.88	-	-	20	29	< 0.1	0.7	1.6	-	-	2.9	-	-
Montague Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Mornington Peninsula	11	-	-	30.71	-	-	15	27	0.1	1.9	2.1	-	-	5.7	-	-
Moyne	22	-	-	20.50	-	-	21	80	0.4	6.5	5.4	-	-	18.2	-	-
Norman Island	9	-	-	69.42	-	-	18	48	< 0.1	0.6	1	-	-	1	-	-

Phillip Island	7	-	-	31.75	-	-	21	88	0.2	2.9	4.2	-	-	10.5	-	-
Reid Rock	1	-	-	89.96	-	-	10	10	0.3	0.3	1	-	-	1	-	-
Rodondo Island	4	-	-	73.83	-	-	19	34	< 0.1	0.4	1	-	-	1	-	-
Seal Islands	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Shellback Island	2	-	-	91.67	-	-	12	13	< 0.1	0.2	1	-	-	1	-	-
Skull Rock	6	-	-	75.75	-	-	24	48	< 0.1	0.8	1.4	-	-	1.9	-	-
South Gippsland	24	1	-	21.92	96.46	-	19	124	0.9	16.5	9.2	1	-	41.1	1	-
Surf Coast	20	-	-	17.83	-	-	17	96	0.6	11.8	5.1	-	-	20.1	-	-
Warrnambool	6	-	-	29.96	-	-	15	61	< 0.1	1.7	1.8	-	-	4.8	-	-
West Coast	1	-	-	69.04	-	-	11	12	0.6	0.6	1.9	-	-	1.9	-	-
Anser Island	10	-	-	76.92	-	-	17	23	< 0.1	0.5	1.2	-	-	1.9	-	-
Bass Coast	9	-	-	27.83	-	-	12	19	< 0.1	1.3	1.4	-	-	4.8	-	-

Table 13.5 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 1 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	33	-	-	13.96	-	-	25	66	0.2	0.8	1.4	-	-	1.9	-	-
Bass Coast	34	-	-	14.46	-	-	17	54	0.5	4.5	4.4	-	-	15.3	-	-
Bega Valley	9	-	-	25.92	-	-	16	32	< 0.1	1	1.8	-	-	3.8	-	-
Circular Head	11	-	-	27.04	-	-	19	66	0.3	2.5	5.8	-	-	9.6	-	-
Colac Otway	75	15	-	4.25	14.38	-	25	312	4.1	26.4	14.4	3.4	-	58.3	6.7	-
Corangamite	49	-	-	4.08	-	-	21	92	0.6	3.4	3.5	-	-	11.5	-	-
Curtis Island	10	-	-	27.29	-	-	16	31	< 0.1	0.6	1.4	-	-	1.9	-	-
East Gippsland	20	-	-	23.13	-	-	14	29	0.1	0.6	1.5	-	-	3.8	-	-
Glenelg	2	1	-	84.13	95.42	-	27	114	0.1	6.5	21	1	-	22.9	1	-
Glennie Group	47	-	-	15.00	-	-	16	63	0.3	1.8	2	-	-	5.7	-	-
Grant	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Greater Geelong	5	-	-	18.38	-	-	19	26	< 0.1	0.9	1.3	-	-	1.9	-	-
Hogan Island Group	15	-	-	19.29	-	-	13	23	< 0.1	0.4	1.1	-	-	1.9	-	-
Hunter Island	1	-	-	47.75	-	-	10	10	0.4	0.4	1	-	-	1	-	-
Kanowna Island	39	-	-	17.42	-	-	21	82	0.2	1.9	2	-	-	3.8	-	-
Kent Island Group	17	-	-	23.42	-	-	18	78	0.2	1.8	2.2	-	-	3.8	-	-
King Island	76	32	-	8.46	15.04	-	29	494	5.2	25.1	19.1	1.9	-	47.8	3.8	-
Lady Julia Percy Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Laurence Rocks	2	-	-	84.33	-	-	17	22	< 0.1	0.4	1.9	-	-	1.9	-	-
Moncoeur Islands	34	-	-	17.67	-	-	18	40	0.2	0.8	1.7	-	-	2.9	-	-
Montague Island	7	-	-	48.13	-	-	15	22	< 0.1	0.3	1.1	-	-	1.9	-	-
Mornington Peninsula	24	-	-	14.08	-	-	17	49	0.4	2.4	3.3	-	-	6.7	-	-
Moyne	23	-	-	16.50	-	-	26	90	0.5	6.7	5.2	-	-	17.2	-	-
Norman Island	48	9	-	16.29	39.00	-	46	372	0.8	10.1	2.2	2	-	3.8	2.9	-

Phillip Island	32	1	-	14.08	20.79	-	18	101	0.5	3	4.7	1	-	10.5	1	-
Reid Rock	1	-	-	61.13	-	-	18	18	0.3	0.3	1	-	-	1	-	-
Rodondo Island	27	-	-	16.08	-	-	17	40	< 0.1	0.5	1	-	-	1	-	-
Seal Islands	9	-	-	17.17	-	-	20	38	0.1	1.4	2	-	-	3.8	-	-
Shellback Island	26	-	-	14.54	-	-	21	46	< 0.1	0.6	1	-	-	1	-	-
Skull Rock	39	-	-	17.42	-	-	21	82	0.2	1.4	1.6	-	-	2.9	-	-
South Gippsland	75	16	-	13.29	14.08	-	26	300	3.8	15.8	14	2	-	43	3.8	-
Surf Coast	20	-	-	13.38	-	-	20	94	0.7	10.7	6.2	-	-	20.1	-	-
Warrnambool	5	-	-	17.63	-	-	21	48	< 0.1	1.7	3.4	-	-	4.8	-	-
West Coast	3	-	-	40.63	-	-	11	13	0.1	0.9	1.3	-	-	1.9	-	-
Anser Island	33	-	-	13.96	-	-	25	66	0.2	0.8	1.4	-	-	1.9	-	-
Bass Coast	34	-	-	14.46	-	-	17	54	0.5	4.5	4.4	-	-	15.3	-	-

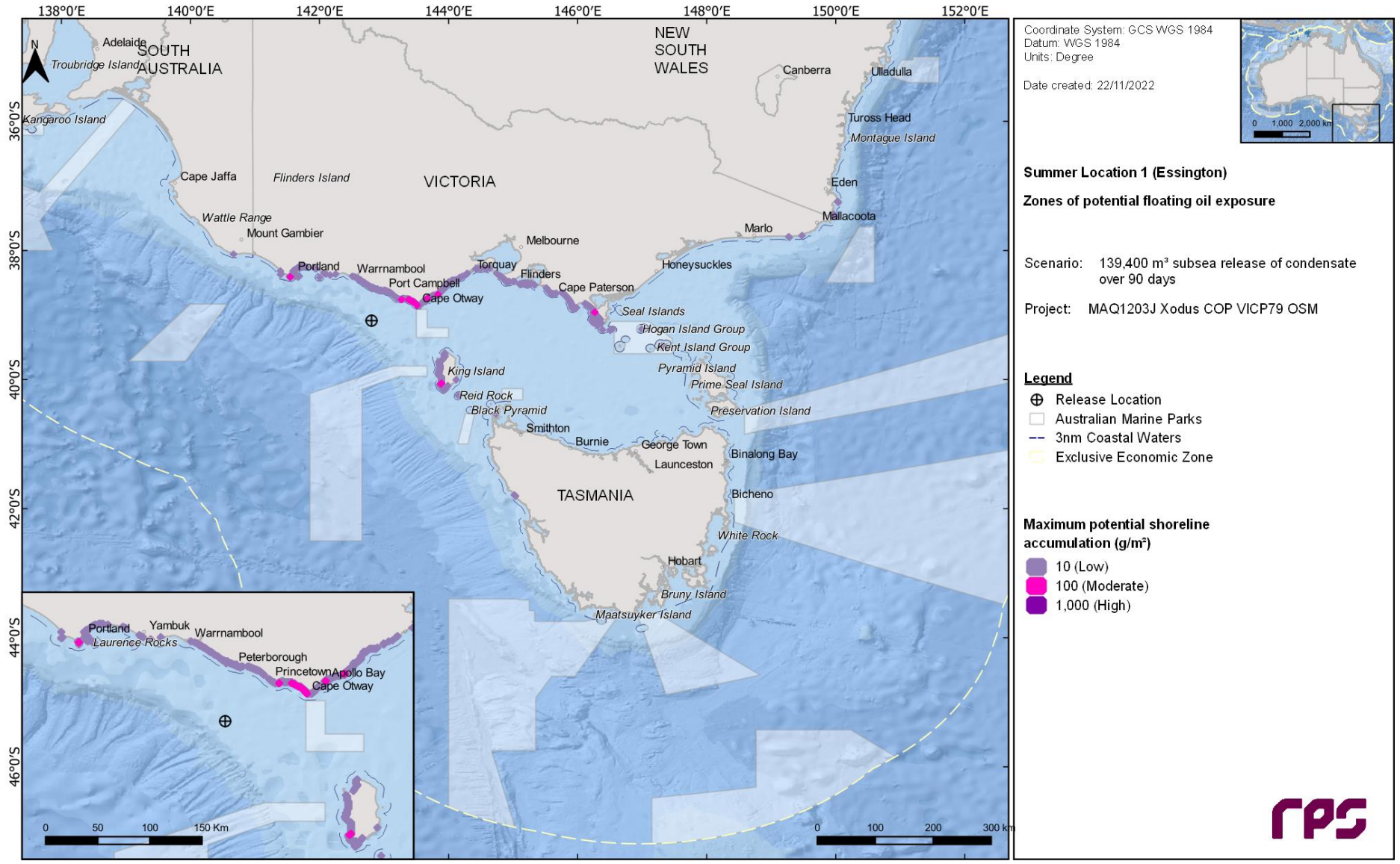


Figure 13.4 Maximum potential shoreline loading from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

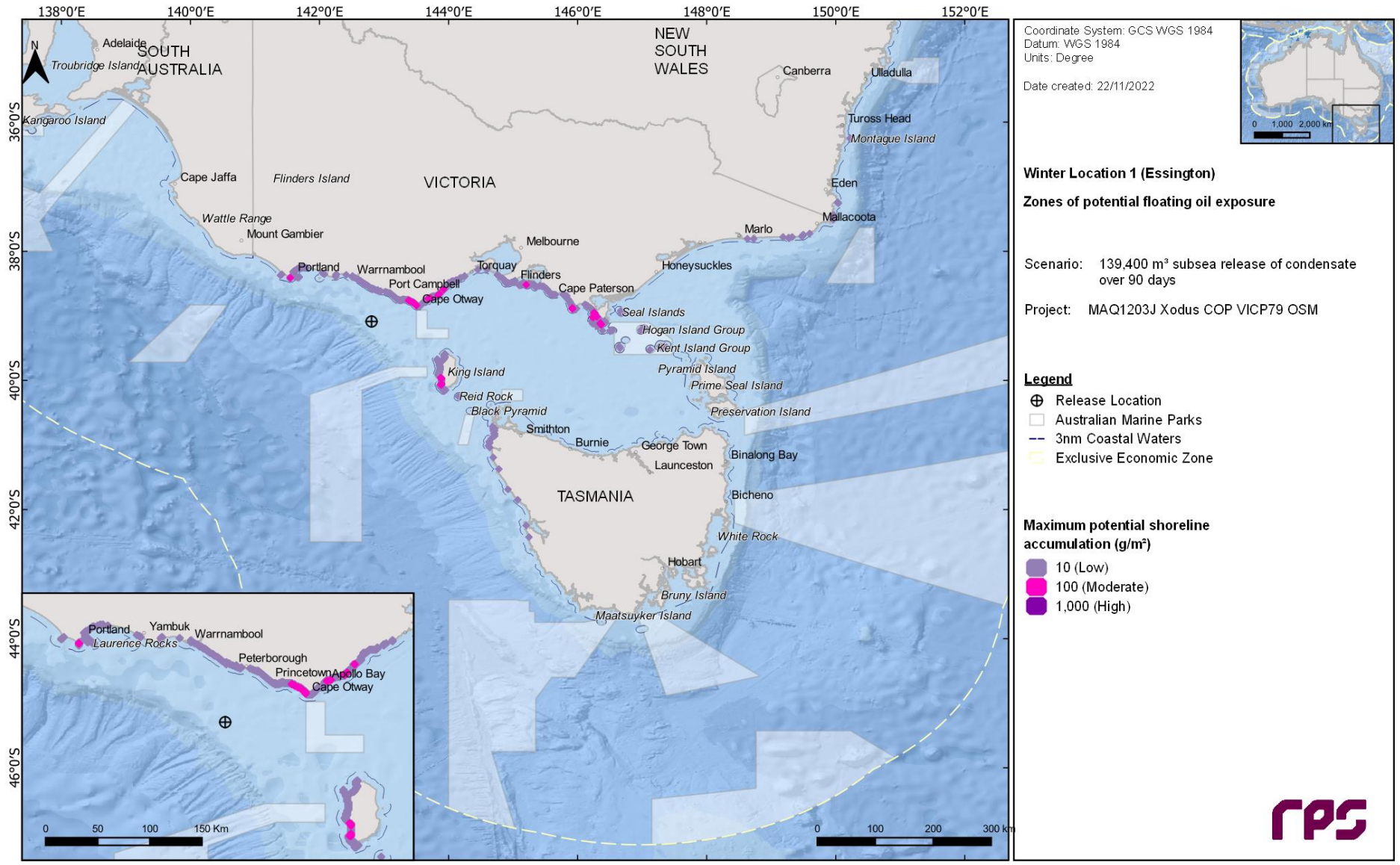


Figure 13.5 Maximum potential shoreline loading from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.2.3 In-water exposure

13.2.3.1 Dissolved Hydrocarbons

Table 13.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 13.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 13.6 and Figure 13.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 13.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	743	625	367
	Maximum distance (km) from release location (99th percentile)	546	386	175
	Direction	ENE	E	E
Winter	Maximum distance (km) from release location	748	608	293
	Maximum distance (km) from release location (99th percentile)	619	396	226
	Direction	ENE	E	E

Table 13.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	4,187	98	97	62	4,113	100	100	73
	Beagle	451	13	6	1	352	45	9	-
	Boags	23	3	-	-	27	2	-	-
	Franklin	175	19	2	-	107	10	1	-
	Nelson	12	1	-	-	21	1	-	-
	Zeehan	1,649	95	79	9	2,538	85	62	9
IBRA	Bateman	7	-	-	-	15	2	-	-
	East Gippsland Lowlands	45	2	-	-	59	4	1	-
	Flinders	84	10	1	-	110	21	2	-
	Gippsland Plain	312	10	2	-	201	44	4	-
	Glenelg Plain	34	3	-	-	8	-	-	-
	King Island	868	55	22	1	745	76	45	2
	Otway Plain	2,681	66	41	7	857	83	58	6
	Otway Ranges	1,057	58	34	4	779	80	51	4
	South East Coastal Ranges	3	-	-	-	13	1	-	-
	Strzelecki Ranges	106	11	1	-	217	40	4	-
	Tasmanian West	16	2	-	-	28	1	-	-
	Warrnambool Plain	224	47	12	-	320	54	17	-
	Wilsons Promontory	307	13	6	-	274	57	14	-
IMCRA	Batemans Shelf	16	1	-	-	22	2	-	-
	Boags	31	2	-	-	35	3	-	-
	Central Bass Strait	3,608	98	96	45	3,282	100	100	62
	Central Victoria	2,433	98	96	39	2,293	100	100	58
	Coorong	41	1	-	-	5	-	-	-
	Flinders	528	18	6	1	614	64	23	1
	Franklin	169	22	4	-	166	10	3	-
	Otway	8,922	100	100	100	7,863	100	100	100
	Twofold Shelf	400	11	3	1	295	25	4	-
	Victorian Embayments	132	5	2	-	93	15	1	-
	Victorian Embayments	47	3	-	-	100	6	1	-
KEF	Big Horseshoe Canyon	2	-	-	-	10	1	-	-

	Bonney Coast Upwelling	524	15	6	1	469	7	6	1
	Upwelling East of Eden	74	5	1	-	149	12	2	-
	West Tasmania Canyons	3,702	100	100	65	2,415	89	81	29
MNP	Bunurong	48	5	-	-	148	20	3	-
	Cape Howe	38	2	-	-	28	4	-	-
	Churchill Island	4	0	-	-	12	2	-	-
	Corner Inlet	31	3	-	-	42	4	-	-
	Discovery Bay	18	2	-	-	10	1	-	-
	Ninety Mile Beach	17	1	-	-	67	4	1	-
	Point Addis	82	11	2	-	115	21	3	-
	Point Hicks	15	1	-	-	34	4	-	-
	Port Phillip Heads	21	3	-	-	24	2	-	-
	Twelve Apostles	224	39	14	-	651	40	12	1
	Wilsons Promontory	250	13	4	-	169	55	12	-
MP	Batemans	10	-	-	-	19	2	-	-
	Lower South East	6	-	-	-	28	1	-	-
MS	Beware Reef	4	-	-	-	53	4	1	-
	Marengo Reefs	416	40	12	1	411	69	33	1
	Merri	12	2	-	-	9	-	-	-
	Mushroom Reef	63	3	1	-	43	13	-	-
	The Arches	46	11	-	-	33	7	-	-
Nearshore Waters	Albatross Island	11	1	-	-	21	4	-	-
	Anser Island	136	12	2	-	87	51	9	-
	Bass Coast	34	3	-	-	74	15	1	-
	Bega Valley	29	2	-	-	39	4	-	-
	Black Pyramid	63	13	1	-	48	9	-	-
	Circular Head	21	3	-	-	28	2	-	-
	Colac Otway	2,681	66	41	7	857	83	58	6
	Corangamite	207	48	13	-	395	54	18	-
	Curtis Island	84	8	1	-	110	18	2	-
	East Gippsland	30	2	-	-	59	4	1	-
	Eurobodalla	5	-	-	-	15	2	-	-
	French Island	11	1	-	-	20	1	-	-
	Gabo Island	45	2	-	-	31	3	-	-
	Glenelg	34	3	-	-	10	1	-	-
	Glennie Group	84	13	1	-	169	54	11	-
	Greater Geelong	50	4	-	-	32	3	-	-
	Hogan Island Group	52	10	1	-	76	21	2	-
	Hunter Island	19	1	-	-	50	2	-	-
	Kanowna Island	157	12	5	-	171	57	12	-

	Kent Island Group	7	-	-	-	24	5	0	0
	King Island	868	55	22	1	745	76	45	2
	Lady Julia Percy Island	49	3	-	-	99	2	1	-
	Laurence Rocks	27	2	-	-	12	1	-	-
	Martins Island	19	2	-	-	65	1	1	-
	Moncoeur Islands	303	12	6	-	191	46	10	-
	Mornington Peninsula	312	5	1	-	76	16	2	-
	Moyne	133	19	3	-	320	13	2	-
	Mud Island	5	-	-	-	16	1	-	-
	Norman Island	29	9	-	-	274	33	5	-
	Phillip Island	117	6	2	-	116	22	3	-
	Reid Rock	179	16	2	-	181	21	4	-
	Robbins Island	1	-	-	-	13	1	-	-
	Rodondo Island	238	13	5	-	273	54	11	-
	Seal Islands	245	5	1	-	76	20	1	-
	Shellback Island	35	6	-	-	158	30	4	-
	Skull Rock	136	15	4	-	107	54	14	-
	South Gippsland	106	12	1	-	217	49	5	-
	Surf Coast	384	12	5	-	87	28	3	-
	Three Hummock Island	8	-	-	-	26	1	-	-
	Warrnambool	25	3	-	-	57	3	1	-
	Wellington	53	2	1	-	92	8	2	-
	West Coast	15	1	-	-	19	1	0	-
NPS4	Bunurong Marine Park	24	1	-	-	72	12	1	-
	Corner Inlet Marine and Coastal Park	47	3	-	-	100	3	1	-
	Nooramunga Marine and Coastal Park	31	2	-	-	88	6	1	-
	Shallow Inlet Marine and Coastal Park	9	0	-	-	99	4	2	-
	Wilsons Promontory Marine Park	26	5	-	-	158	24	4	-
	Wilsons Promontory Marine Reserve	34	12	-	-	142	46	8	-
NP	Kent Group	12	1	-	-	30	3	-	-
Ramsar	Corner Inlet	47	3	-	-	100	6	1	-
	Lavinia	36	4	-	-	28	9	-	-
	Port Phillip Bay (Western	24	1	-	-	18	1	-	-

	Shoreline) and Bellarine Peninsula								
	Western Port	17	1	-	-	68	4	1	-
	Corner Inlet	47	3	-	-	100	6	1	-
RSB	Bell Reef	84	19	2	-	184	17	2	-
	Beware Reef	4	-	-	-	53	4	1	-
	Bravenes Rock	624	61	34	2	361	78	44	-
	Brown Rocks	7	-	-	-	15	1	-	-
	Cody Bank	84	14	4	-	157	52	11	-
	Cutter Rock	58	12	1	-	126	31	4	-
	New Zealand Star Bank	26	2	-	-	24	4	-	-
State Waters	New South Wales	30	2	-	-	39	4	-	-
	South Australia	26	1	-	-	28	1	-	-
	Tasmania	883	67	39	5	1,071	80	62	8
	Victoria	2,836	83	58	12	1,867	96	79	13

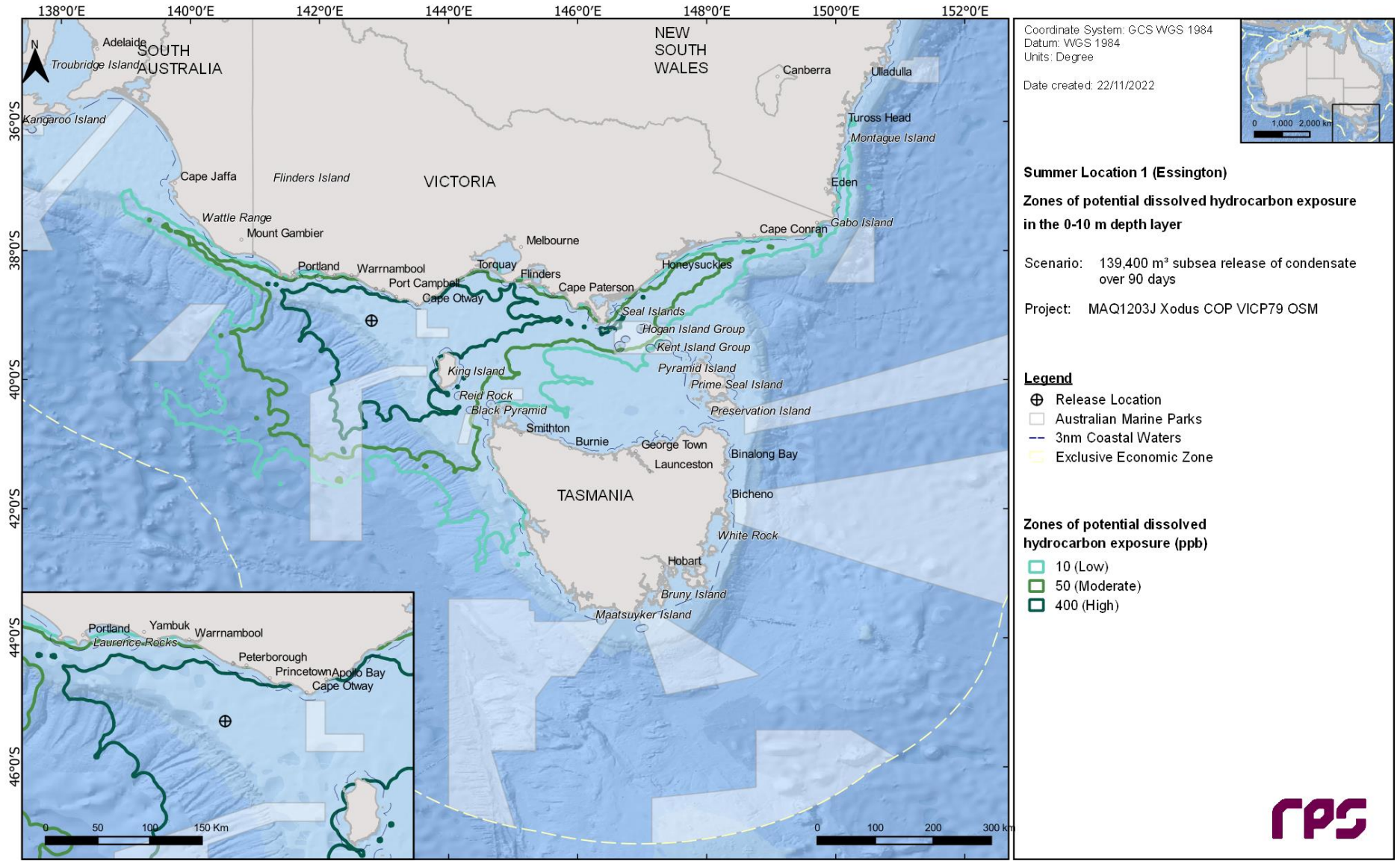


Figure 13.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

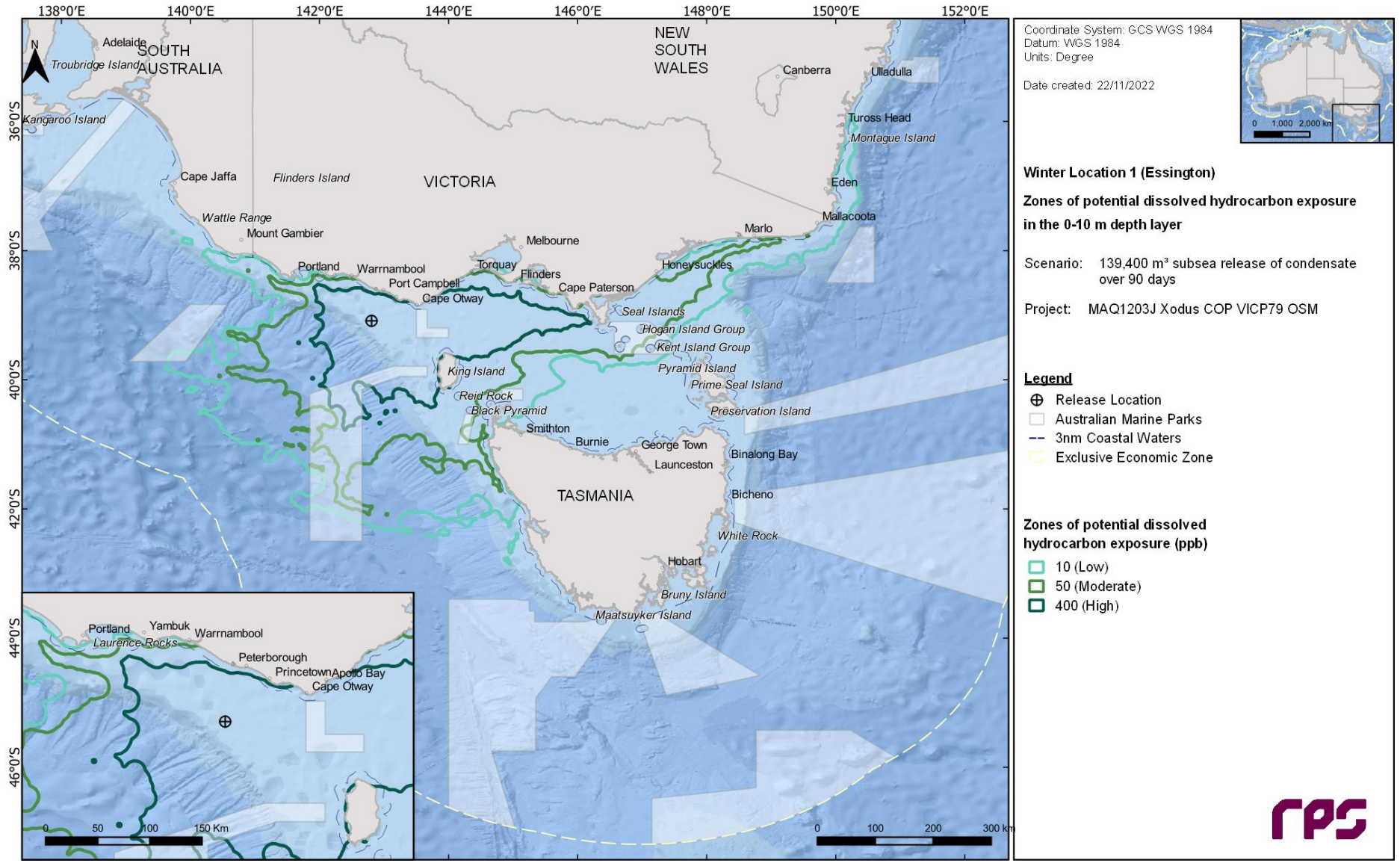


Figure 13.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.2.3.2 Entrained Hydrocarbons

Table 13.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 13.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 13.8 to Figure 13.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 13.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	868	699
	Maximum distance (km) from release location (99^{th} percentile)	773	412
	Direction	ENE	ENE
Winter	Maximum distance (km) from release location	867	440
	Maximum distance (km) from release location (99^{th} percentile)	799	350
	Direction	ENE	N

Table 13.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	1,758	100	100	1,752	100	100
	Beagle	205	54	9	277	90	24
	Boags	61	50	-	62	28	-
	East Gippsland	40	12	-	41	27	-
	Flinders	13	1	-	12	1	-
	Franklin	111	77	1	136	40	10
	Huon	13	2	-	10	1	-
	Nelson	42	10	-	19	3	-
	Tasman Fracture	17	8	-	19	8	-
	Zeehan	680	100	81	663	93	71
IBRA	Bateman	29	5	-	34	23	-
	Bridgewater	154	28	3	159	2	2
	East Gippsland Lowlands	63	23	-	60	57	-
	Flinders	142	35	3	149	74	13
	Gippsland Plain	172	68	4	271	91	23
	Glenelg Plain	175	32	3	185	2	2
	King Island	472	94	37	655	89	66
	Otway Plain	1,664	87	52	1,324	92	65
	Otway Ranges	852	87	45	635	92	64
	South East Coastal Ranges	31	7	-	22	19	-
	Strzelecki Ranges	94	54	-	243	91	11
	Tasmanian West	28	40	-	36	14	-
	Victorian Volcanic Plain	15	4	-	6	-	-
	Warrnambool Plain	388	72	41	427	80	36
	Wilsons Promontory	303	57	13	392	92	32
IMCRA	Batemans Shelf	127	19	3	90	35	-
	Boags	69	59	-	68	26	-
	Central Bass Strait	1,536	100	98	1,627	100	100
	Central Victoria	1,414	100	100	1,469	100	100
	Coorong	45	6	-	23	2	-
	Davey	18	8	-	9	-	-
	Flinders	315	63	13	401	93	37

	Franklin	88	70	-	148	33	9
	Otway	14,637	100	100	12,971	100	100
	Twofold Shelf	148	41	5	167	76	4
	Victorian Embayments	135	63	2	136	74	9
KEF	Big Horseshoe Canyon	15	15	-	31	38	-
	Bonney Coast Upwelling	336	45	22	335	25	9
	Canyons on the eastern continental slope	48	7	-	44	14	-
	Seamounts South and east of Tasmania	12	3	-	11	1	-
	Shelf rocky reefs	35	8	-	35	22	-
	Upwelling East of Eden	146	26	3	100	69	-
	West Tasmania Canyons	1,524	100	100	1,602	97	86
MNP	Bunurong	57	46	-	170	91	5
	Cape Howe	69	22	-	57	57	-
	Churchill Island	60	36	-	76	62	-
	Corner Inlet	10	1	-	13	3	-
	Discovery Bay	105	18	1	69	2	-
	French Island	12	3	-	22	16	-
	Ninety Mile Beach	10	1	-	20	3	-
	Point Addis	339	47	6	334	69	4
	Point Hicks	64	24	-	52	60	-
	Port Phillip Heads	135	34	1	135	53	2
	Twelve Apostles	457	69	42	483	75	35
	Wilsons Promontory	293	56	10	386	92	36
	Yaringa	6	-	-	13	1	-
MP	Batemans	32	6	-	38	25	-
	Jervis Bay	3	-	-	10	1	-
	Lower South East	45	12	-	33	2	-
	Upper South East	12	2	-	12	1	-
MS	Beware Reef	35	7	-	30	19	-
	Marengo Reefs	508	76	41	531	86	57
	Merri	124	27	2	118	10	1
	Mushroom Reef	95	62	-	109	74	2
	The Arches	267	54	19	129	41	4
Nearshore Waters	Albatross Island	46	52	-	45	21	-
	Anser Island	287	55	6	283	91	31
	Bass Coast	76	41	-	181	79	11
	Bega Valley	61	19	-	48	50	-
	Black Pyramid	88	67	-	82	39	-
	Circular Head	28	31	-	85	14	-

	Colac Otway	1,664	87	52	1,324	92	65
	Corangamite	388	75	41	427	81	37
	Craggy Island	15	5	-	12	1	-
	Curtis Island	70	32	-	145	70	13
	East Gippsland	61	23	-	55	57	-
	Eurobodalla	20	4	-	25	18	-
	Frankston	10	1	-	16	13	-
	French Island	36	33	-	55	50	-
	Gabo Island	71	20	-	60	55	-
	Glenelg	175	31	3	185	2	2
	Glennie Group	301	57	10	377	92	31
	Grant	38	12	-	34	2	-
	Greater Geelong	140	33	3	145	50	4
	Hogan Island Group	142	35	3	148	74	3
	Hunter Island	38	32	-	53	18	-
	Kanowna Island	293	56	6	287	91	32
	Kent Island Group	60	24	-	99	49	-
	King Island	492	94	38	655	89	66
	Lady Julia Percy Island	241	35	4	240	9	2
	Laurence Rocks	174	26	3	177	2	2
	Martins Island	11	3	-	6	-	-
	Moncoeur Islands	224	54	12	190	90	21
	Montague Island	29	5	-	34	23	-
	Mornington Peninsula	131	68	4	129	77	8
	Moyne	363	61	18	390	46	19
	Mud Island	72	31	-	59	42	-
	Norman Island	189	49	7	392	92	29
	Phillip Island	129	66	2	168	78	14
	Pyramid Island	25	6	-	22	24	-
	Reid Rock	218	80	7	225	69	4
	Robe	12	2	-	12	1	-
	Rodondo Island	181	56	13	159	91	28
	Seal Islands	49	27	-	73	73	-
	Shellback Island	177	50	4	238	92	23
	Skull Rock	303	57	6	291	91	31
	South Gippsland	229	54	6	341	91	30
	Surf Coast	248	45	6	259	69	20
	Three Hummock Island	24	23	-	33	13	-
	Warrnambool	233	33	4	255	20	6
	Wellington	7	-	-	29	5	-
	West Coast	28	40	-	36	14	-
NP	Kent Group	60	22	-	98	44	-

NPS4	Bunurong Marine Park	54	41	-	181	75	9
	Corner Inlet Marine and Coastal Park	49	28	-	69	60	-
	Nooramunga Marine and Coastal Park	6	-	-	26	5	-
	Shallow Inlet Marine and Coastal Park	43	27	-	52	58	-
	Wilsons Promontory Marine Park	178	49	4	308	91	23
	Wilsons Promontory Marine Reserve	267	55	10	363	91	29
Ramsar	Corner Inlet	49	28	-	69	60	-
	Gippsland Lakes	5	-	-	14	4	-
	Glenelg Estuary and Discovery Bay Wetlands	74	12	-	12	2	-
	Lavinia	51	31	-	73	58	-
	Piccaninnie Ponds Karst Wetlands	24	11	-	17	2	-
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	111	28	1	116	41	2
	Western Port	51	45	-	82	60	-
RSB	Bell Reef	159	79	6	153	57	1
	Beware Reef	35	7	-	30	19	-
	Bravenes Rock	642	85	56	607	90	63
	Brown Rocks	22	24	-	45	13	-
	Cody Bank	74	68	-	128	94	4
	Cutter Rock	108	44	2	237	77	10
	Endeavour Reef	18	5	-	13	7	-
	New Zealand Star Bank	99	25	-	76	67	-
	Wakitipu Rock	23	5	-	19	18	-
	Warrego Rock	17	5	-	12	1	-
	Wright Rock	18	5	-	17	15	-
State Waters	New South Wales	86	22	-	68	54	-
	South Australia	50	12	-	49	2	-
	Tasmania	675	96	49	764	93	81
	Victoria	1,664	97	76	1,332	100	84

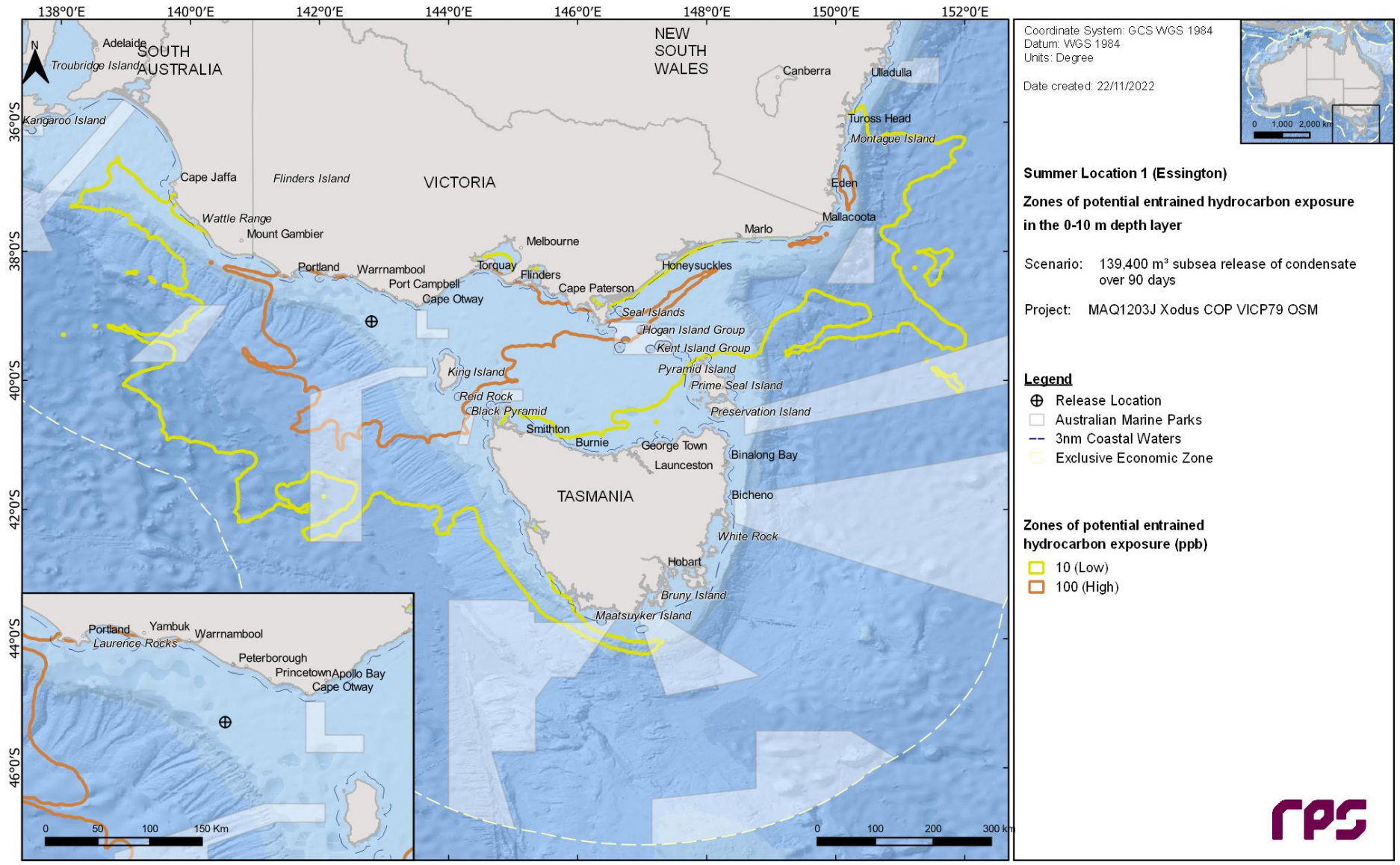


Figure 13.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

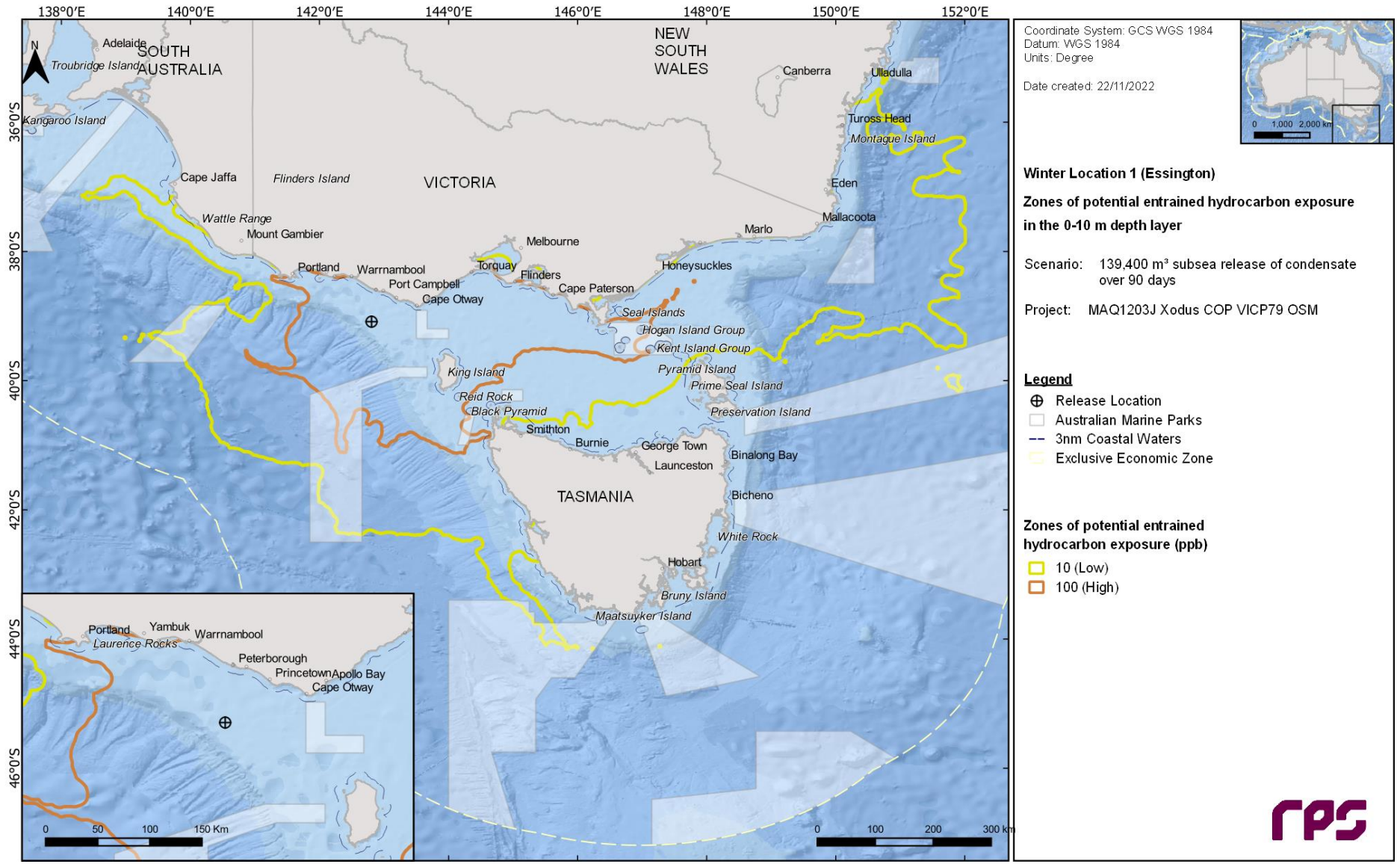


Figure 13.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

13.3 Deterministic Analysis

13.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 84 and commenced during winter conditions, 5 pm 9th April 2019.

Figure 13.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 16.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 13.11 and Figure 13.12, respectively.

Figure 13.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 78,140 m^3 (~56%) was lost to the atmosphere through evaporation. Approximately, 59,630 m^3 (~43%) of the released volume decayed, while approximately 1,430 m^3 (~1%) was predicted to remain within the water column and approximately 20 m^3 (~0.1%) was present on the shorelines.

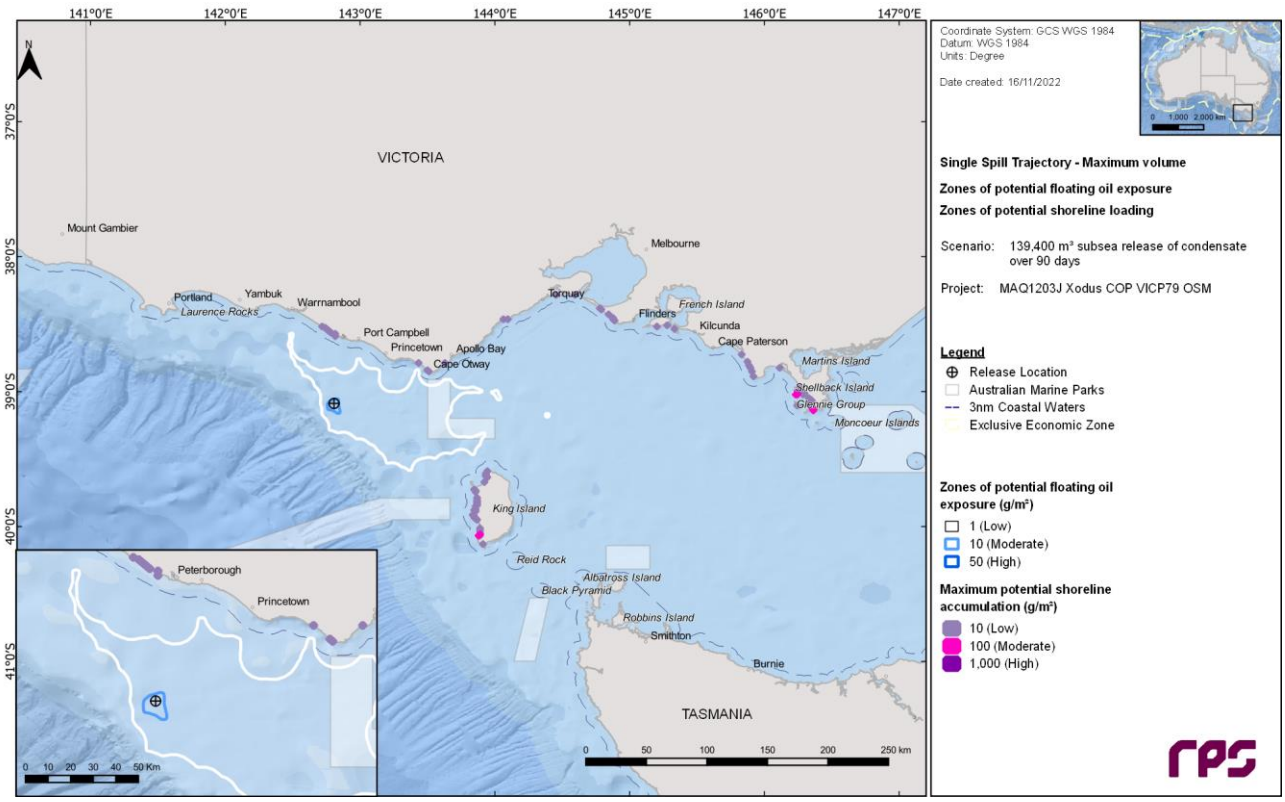


Figure 13.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

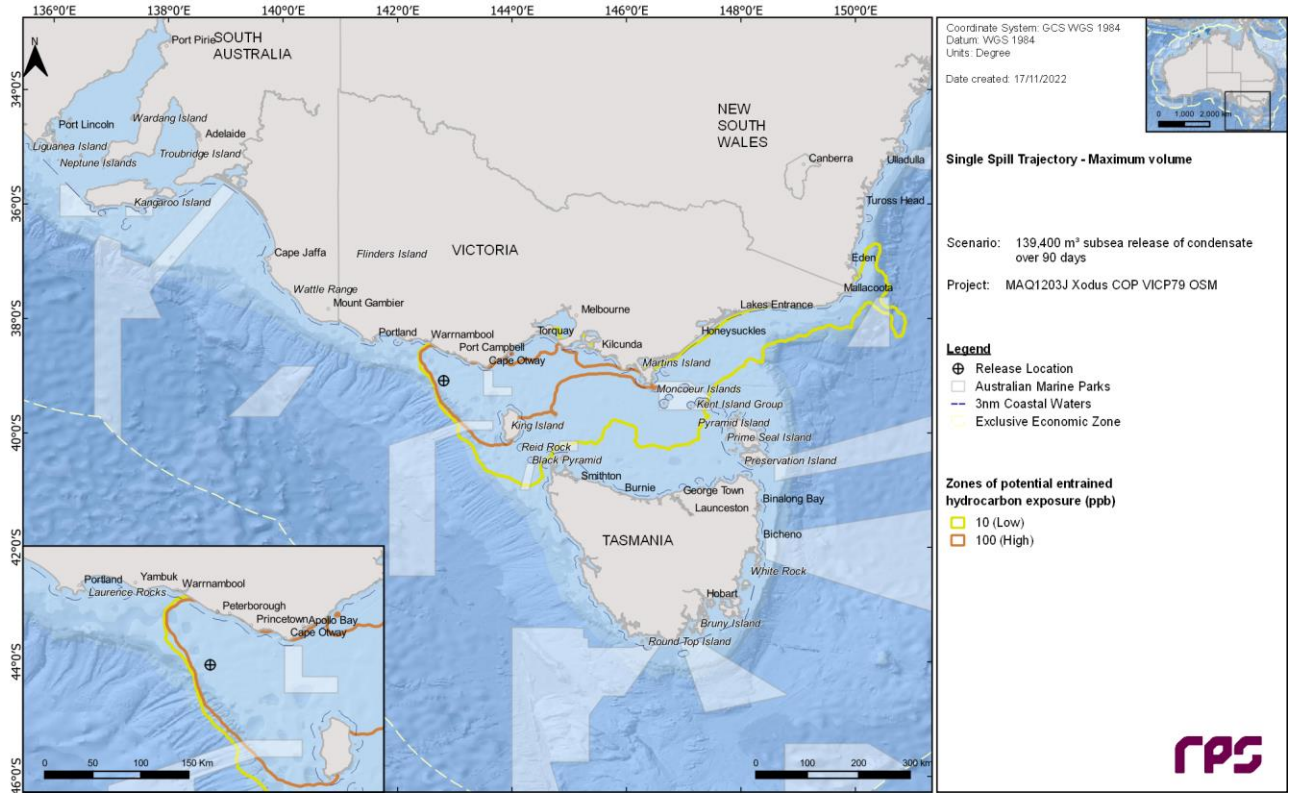


Figure 13.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

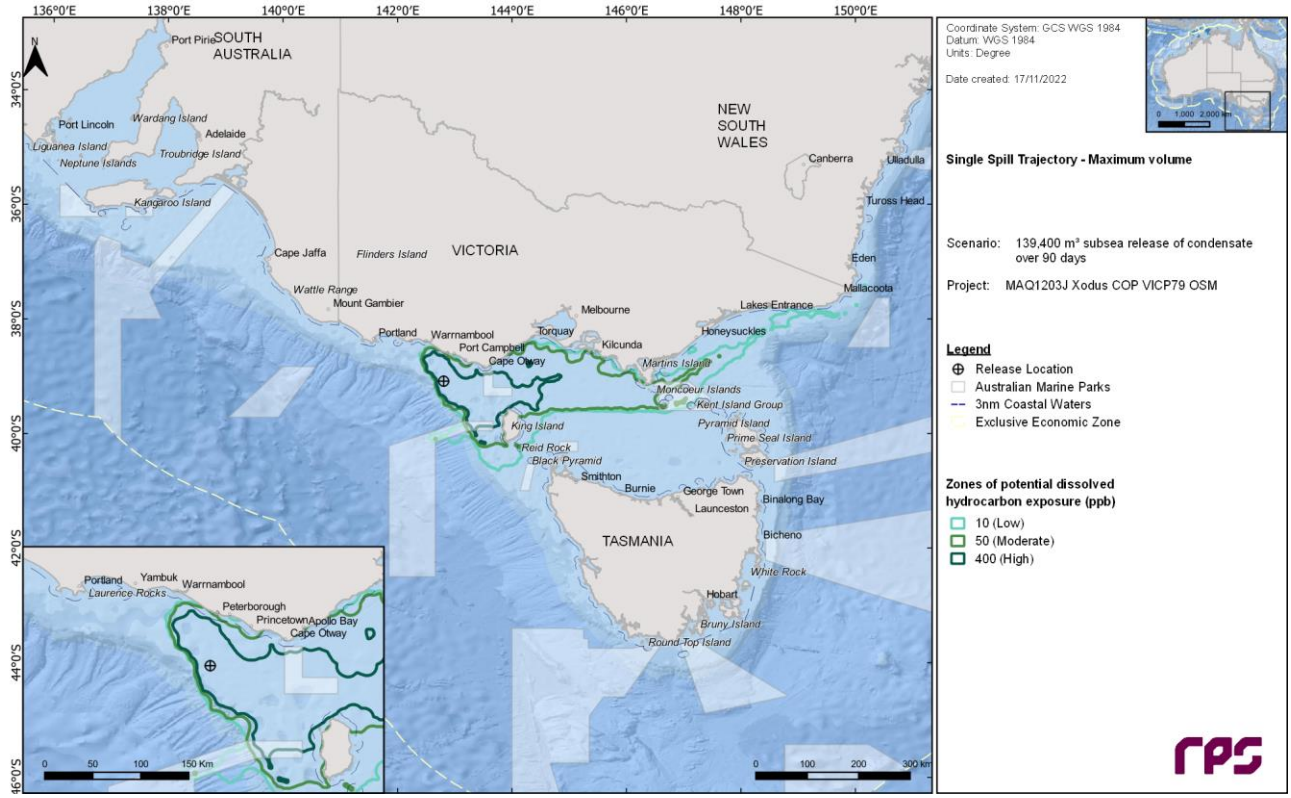


Figure 13.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

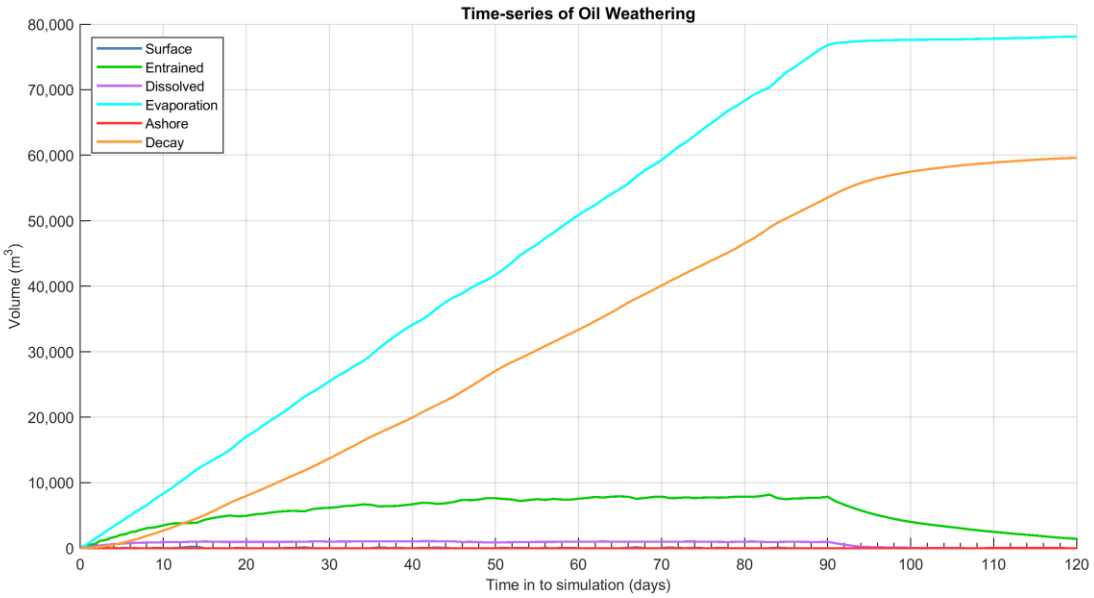


Figure 13.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 1.

14 LOCATION 2 LOWC RESULTS

This scenario examined the potential exposure following a subsea LOWC at Location 2. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 14.1 presents the EMBA, Section 14.2 shows the seasonal (or stochastic) results, while Section 14.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

14.1 EMBA

Figure 14.1 shows the EMBA for Location 2. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

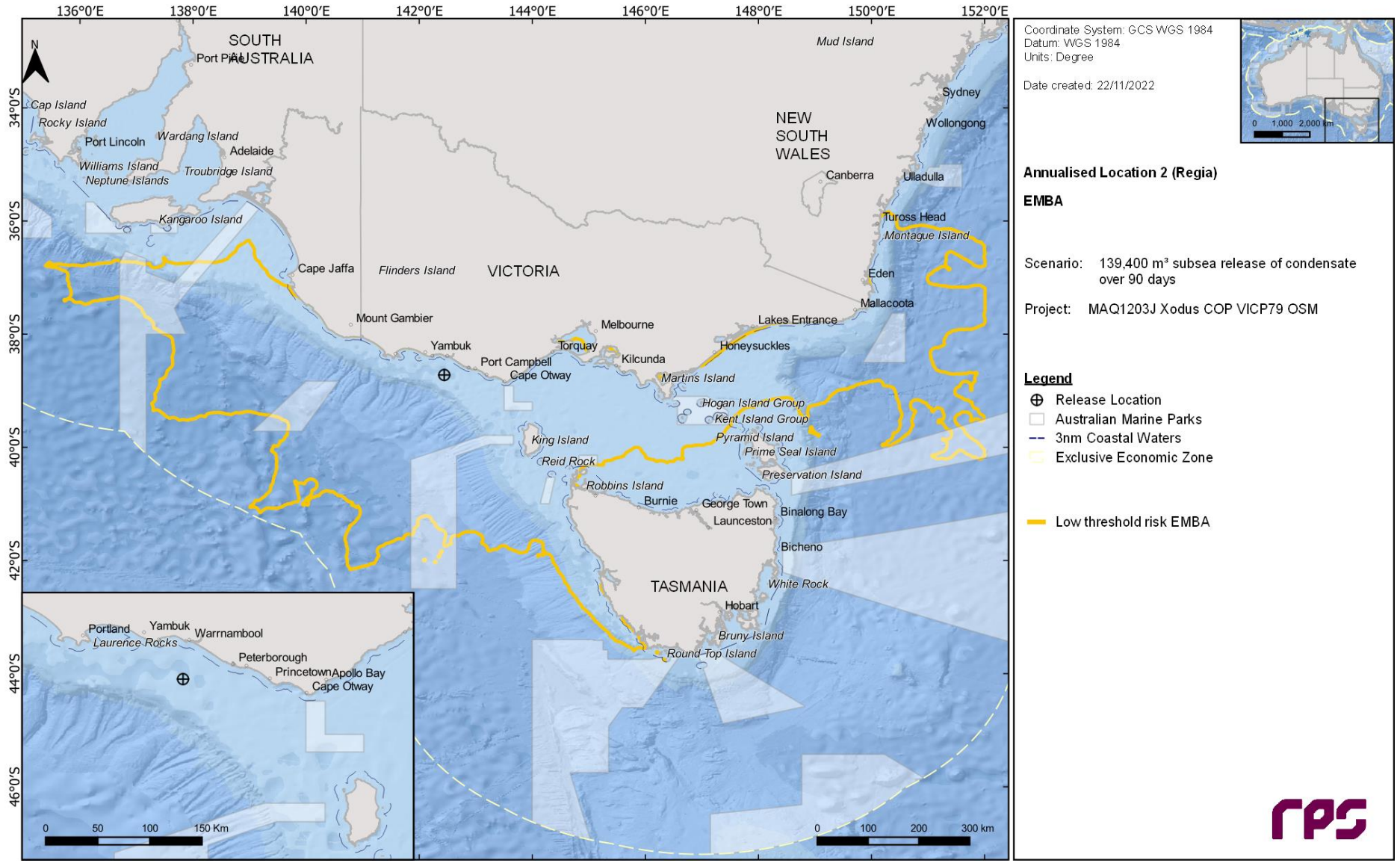


Figure 14.1 Predicted low threshold EMBA from a subsea LOWC at Location 2. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

14.2 Stochastic Analysis

14.2.1 Floating Oil Exposure

Table 14.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 14.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 14.2 to Figure 14.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 1,229 km^2 and 980 km^2, respectively.

Table 14.1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	179.2	11.1	-
	Maximum distance (km) from release location (99^{th} percentile)	112.6	10.1	-
	Direction	ESE	N	-
Winter	Maximum distance (km) from release location	342.1	10.1	0.4
	Maximum distance (km) from release location (99^{th} percentile)	151.9	9.5	0.4
	Direction	W	W	SE

Table 14.2 **Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 2 for each season. Results were calculated from 100 spill simulations per season.**

	Receptor	Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	14	-	-	8.25	-	-	63	-	-	3.54	-	-
	Beagle	-	-	-	-	-	-	-	-	-	-	-	-
	Zeehan	-	-	-	-	-	-	-	-	-	-	-	-
IBRA	Bridgewater	2	-	-	16.63	-	-	1	-	-	75.25	-	-
	Gippsland Plain	-	-	-	-	-	-	1	-	-	49.46	-	-
	Glenelg Plain	2	-	-	16.75	-	-	2	-	-	62.38	-	-
	Otway Plain	37	-	-	5.5	-	-	91	-	-	4.17	-	-
	Otway Ranges	21	-	-	10.04	-	-	73	-	-	3.92	-	-
	Warrnambool Plain	58	-	-	4.88	-	-	95	-	-	3.58	-	-
	Wilsons Promontory	-	-	-	-	-	-	6	-	-	38.5	-	-
IMCRA	Central Bass Strait	15	-	-	3.88	-	-	63	-	-	2.71	-	-
	Central Victoria	19	-	-	14.79	-	-	66	-	-	2.21	-	-
	Flinders	-	-	-	-	-	-	6	-	-	38.5	-	-
	Otway	100	100	-	0.04	0.08	-	100	100	2	0.04	0.08	36.08
KEF	Bonney Coast Upwelling	30	-	-	3.46	-	-	18	-	-	4.38	-	-
MNP	Twelve Apostles	46	-	-	4.13	-	-	88	-	-	2.71	-	-
	Wilsons Promontory	-	-	-	-	-	-	5	-	-	38.5	-	-
MS	Merri	-	-	-	-	-	-	2	-	-	29.83	-	-
	The Arches	1	-	-	36.5	-	-	3	-	-	12.75	-	-
Nearshore Waters	Anser Island	-	-	-	-	-	-	5	-	-	38.58	-	-
	Bass Coast	-	-	-	-	-	-	1	-	-	49.46	-	-
	Colac Otway	38	-	-	5.5	-	-	92	-	-	3.92	-	-
	Corangamite	44	-	-	5.83	-	-	85	-	-	3.58	-	-
	Glenelg	2	-	-	16.63	-	-	2	-	-	62.38	-	-
	Kanowna Island	-	-	-	-	-	-	1	-	-	38.71	-	-
	Moyne	33	-	-	4.88	-	-	66	-	-	4.5	-	-

	Norman Island	-	-	-	-	-	-	1	-	-	56.88	-	-
	South Gippsland	-	-	-	-	-	-	4	-	-	38.5	-	-
	Warrnambool	4	-	-	43.08	-	-	9	-	-	27.17	-	-
RSB	Bravenes Rock	1	-	-	38.63	-	-	4	-	-	2.42	-	-
State Waters	Victoria	97	-	-	2.38	-	-	100	-	-	2	-	-

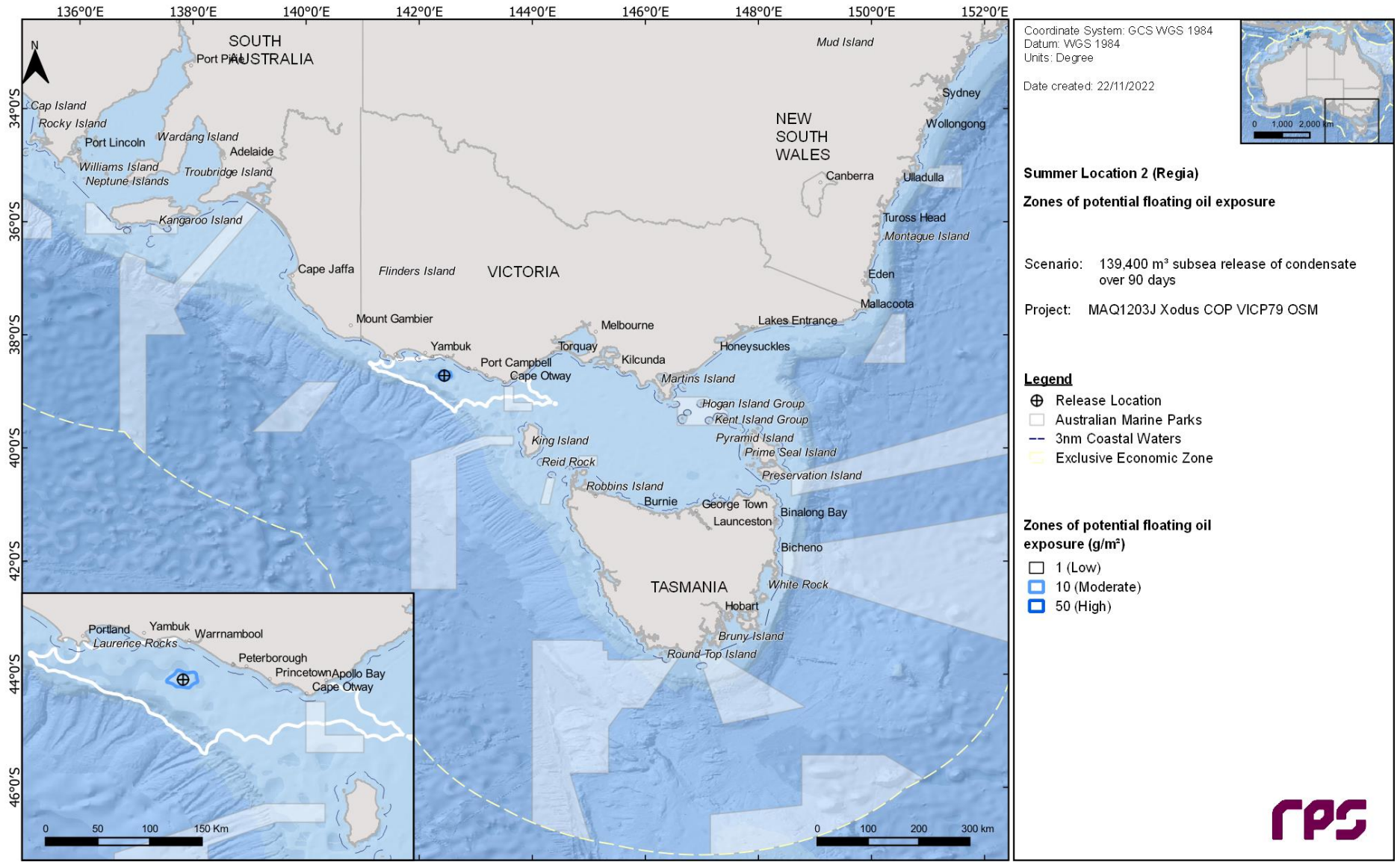


Figure 14.2 Zones of potential floating oil exposure from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

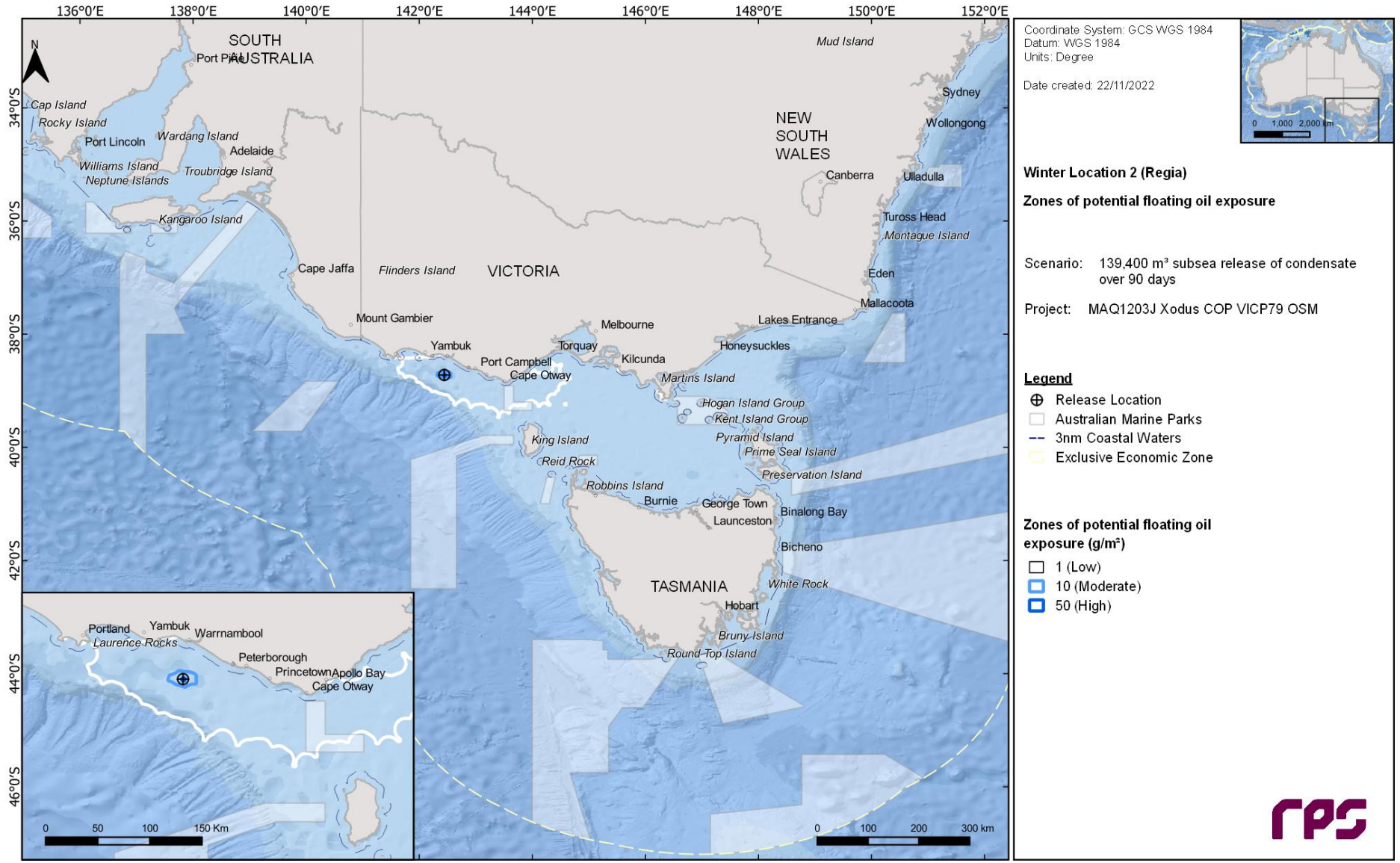


Figure 14.3 Zones of potential floating oil exposure from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.2.2 Shoreline Accumulation

Table 14.3 summarises the predicted accumulation on any shoreline during each season.

Table 14.4 and Table 14.5 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 14.4 and Figure 14.5.

Table 14.3 Summary of accumulation on any shoreline from a subsea LOWC at Location 2 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	100	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	4.21	3.63
Maximum volume of hydrocarbons ashore (m^3)	121.3	139.7
Average volume of hydrocarbons ashore (m^3)	26.9	47.1
Maximum length of the shoreline at **10 g/m^2** (km)	201	222
Average shoreline length (km) at **10 g/m^2** (km)	70.8	101.4
Maximum length of the shoreline at **100 g/m^2** (km)	47	35
Average shoreline length (km) at **100 g/m^2** (km)	8.4	15.4
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	3
Average shoreline length (km) at **1,000 g/m^2** (km)	-	3

Table 14.4 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 2 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	4	-	-	79.92	-	-	21	40	< 0.1	0.6	1.2	-	-	1.9	-	-
Bass Coast	6	-	-	26.46	-	-	14	22	< 0.1	0.9	1.3	-	-	1.9	-	-
Bega Valley	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Colac Otway	93	42	-	4.21	13.13	-	41	384	9.5	35.1	19.8	4.5	-	40.2	13.4	-
Corangamite	99	50	-	4.88	12.04	-	38	388	8.8	32.8	19.4	3.3	-	42.1	13.4	-
Curtis Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
East Gippsland	2	-	-	93.92	-	-	20	23	< 0.1	0.4	1	-	-	1	-	-
French Island	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Gabo Island	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Glenelg	49	9	-	5.46	9.54	-	25	301	2.1	35.2	11.7	3.4	-	45.9	10.5	-
Glennie Group	8	-	-	50.63	-	-	13	18	< 0.1	0.4	1.1	-	-	1.9	-	-
Grant	15	-	-	25.13	-	-	12	18	0.2	1.2	1.5	-	-	2.9	-	-
Greater Geelong	14	-	-	30.33	-	-	21	65	0.2	2.9	3.1	-	-	4.8	-	-
Hogan Island Group	1	-	-	103.21	-	-	13	13	0.2	0.2	1	-	-	1	-	-
Kanowna Island	4	-	-	82.17	-	-	19	40	< 0.1	0.7	1.2	-	-	1.9	-	-
Kent Island Group	-	-	-	-	-	-	-	-	< 0.1	0.3	-	-	-	-	-	-
King Island	8	-	-	27.21	-	-	13	17	0.2	2.5	3.2	-	-	11.5	-	-
Lady Julia Percy Island	34	2	-	5.58	23.67	-	36	155	0.2	1.8	1	1	-	1	1	-
Laurence Rocks	24	-	-	6.08	-	-	24	66	0.2	1.5	1.8	-	-	2.9	-	-
Moncoeur Islands	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Mornington Peninsula	14	-	-	33.42	-	-	16	30	0.2	1.6	2.3	-	-	4.8	-	-
Moyne	87	43	-	4.50	5.71	-	41	457	8.2	38.4	17.7	4.1	-	52.6	11.5	-
Norman Island	7	-	-	71.71	-	-	23	56	< 0.1	1.1	1.2	-	-	1.9	-	-
Phillip Island	12	-	-	27.54	-	-	14	23	0.1	1.3	2	-	-	5.7	-	-
Rodondo Island	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Seal Islands	2	-	-	94.08	-	-	14	17	< 0.1	0.2	1	-	-	1	-	-
Shellback Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-

Skull Rock	4	-	-	82.17	-	-	22	40	< 0.1	0.6	1	-	-	1	-	-
South Gippsland	19	-	-	27.83	-	-	15	74	0.5	9	7.2	-	-	28.7	-	-
Surf Coast	14	1	-	27.67	92.96	-	16	119	0.4	18.3	4.5	1.9	-	25.8	1.9	-
Warrnambool	64	10	-	5.79	45.58	-	25	227	2.2	21.6	6.8	3.2	-	22	8.6	-

Table 14.5 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 2 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	37	-	-	20.67	-	-	27	77	0.2	1.6	1.3	-	-	1.9	-	-
Bass Coast	26	-	-	16.17	-	-	18	71	0.4	3.4	3.1	-	-	8.6	-	-
Bega Valley	3	-	-	40.54	-	-	17	21	< 0.1	0.5	1.3	-	-	1.9	-	-
Colac Otway	100	74	-	4.33	5.04	-	48	729	14.7	51.1	27.3	4.9	-	48.8	13.4	-
Corangamite	99	70	1	3.63	5.25	89.38	62	1,250	21	73.7	28.8	7.9	2.9	49.7	22	2.9
Curtis Island	2	-	-	45.29	-	-	12	13	< 0.1	0.2	1	-	-	1	-	-
East Gippsland	10	-	-	24.33	-	-	16	33	< 0.1	0.6	1.2	-	-	1.9	-	-
French Island	3	-	-	91.96	-	-	15	16	< 0.1	0.4	1	-	-	1	-	-
Gabo Island	1	-	-	43.00	-	-	12	12	0.2	0.2	1	-	-	1	-	-
Glenelg	27	6	-	5.71	7.75	-	23	299	1	35.1	6.9	2.5	-	42.1	9.6	-
Glennie Group	42	-	-	17.33	-	-	17	59	0.4	2.2	3.3	-	-	7.6	-	-
Grant	1	-	-	95.92	-	-	12	14	< 0.1	1	1.9	-	-	1.9	-	-
Greater Geelong	12	-	-	32.38	-	-	16	57	0.2	2.7	2.7	-	-	5.7	-	-
Hogan Island Group	5	-	-	66.00	-	-	14	23	< 0.1	0.6	1.3	-	-	1.9	-	-
Kanowna Island	38	-	-	17.79	-	-	21	63	0.2	2.1	1.9	-	-	3.8	-	-
Kent Island Group	2	-	-	30.58	-	-	13	14	< 0.1	0.3	1	-	-	1	-	-
King Island	24	-	-	13.17	-	-	16	46	0.5	3	5.1	-	-	11.5	-	-
Lady Julia Percy Island	26	-	-	9.54	-	-	27	87	< 0.1	1	1	-	-	1	-	-
Laurence Rocks	25	-	-	5.63	-	-	23	83	0.2	1.5	1.8	-	-	2.9	-	-
Moncoeur Islands	12	-	-	26.75	-	-	19	44	0.1	1.4	2.2	-	-	3.8	-	-
Mornington Peninsula	36	-	-	12.08	-	-	16	63	0.5	2.5	3.3	-	-	10.5	-	-
Moyne	90	50	-	4.25	6.25	-	50	568	12	53.1	18.7	6.4	-	52.6	14.3	-
Norman Island	48	2	-	17.83	38.79	-	28	204	0.5	4.7	2.4	1.4	-	4.8	1.9	-
Phillip Island	34	3	-	9.67	89.71	-	18	150	0.4	4.6	2.6	1	-	9.6	1	-
Rodondo Island	14	-	-	45.33	-	-	25	62	< 0.1	0.7	1	-	-	1	-	-
Seal Islands	12	-	-	26.75	-	-	18	37	< 0.1	1	2	-	-	3.8	-	-
Shellback Island	21	-	-	19.33	-	-	28	60	< 0.1	0.7	1	-	-	1	-	-

Skull Rock	38	-	-	17.79	-	-	22	63	0.2	1.4	1.6	-	-	2.9	-	-
South Gippsland	65	17	-	16.13	23.67	-	26	183	2.8	11.9	12.2	1.4	-	29.6	1.9	-
Surf Coast	27	2	-	14.58	47.67	-	16	124	0.7	18.8	4.9	2.9	-	32.5	3.8	-
Warrnambool	42	6	-	4.92	29.79	-	31	243	1.9	24.4	8	6.1	-	23.9	9.6	-

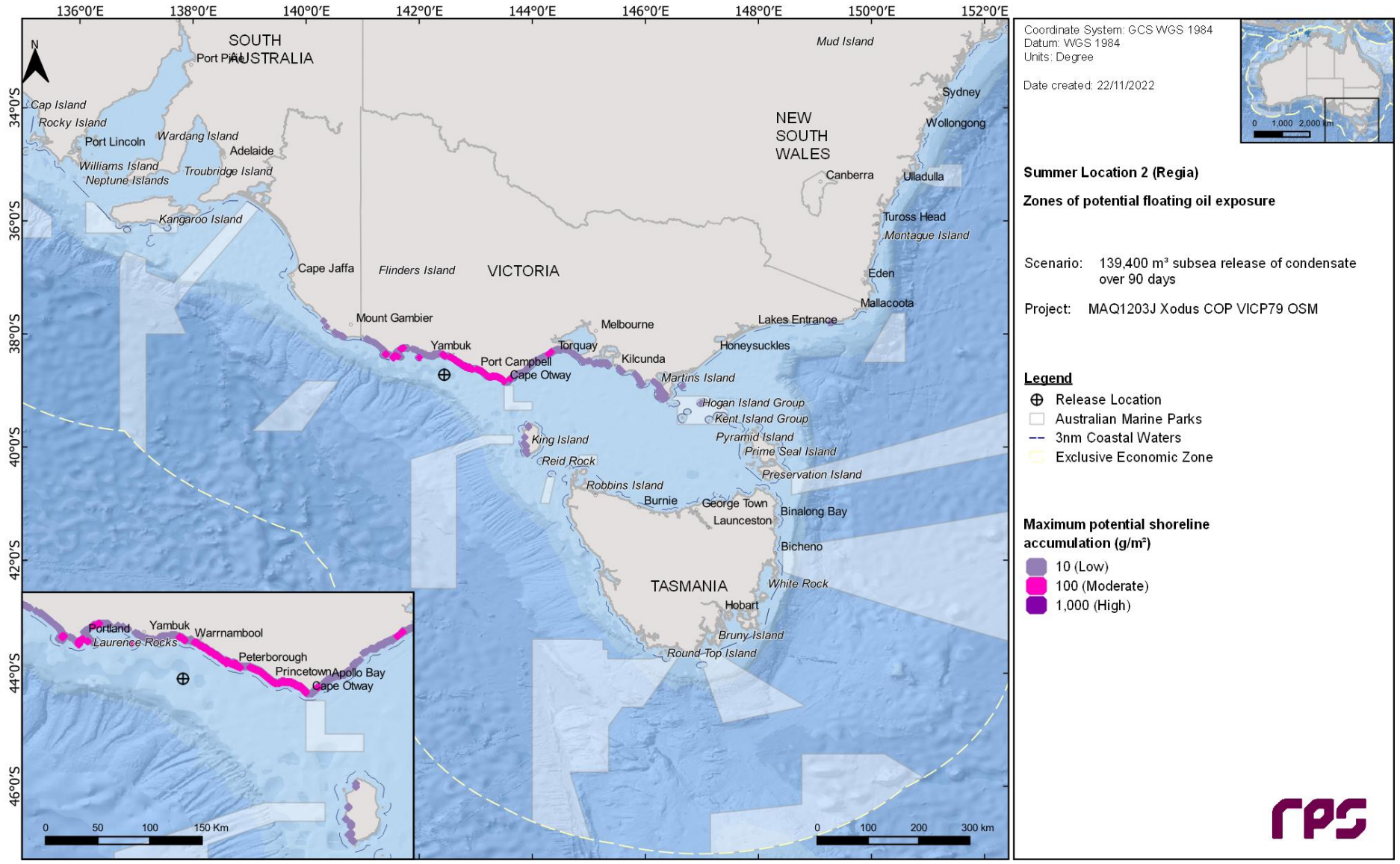


Figure 14.4 Maximum potential shoreline loading from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

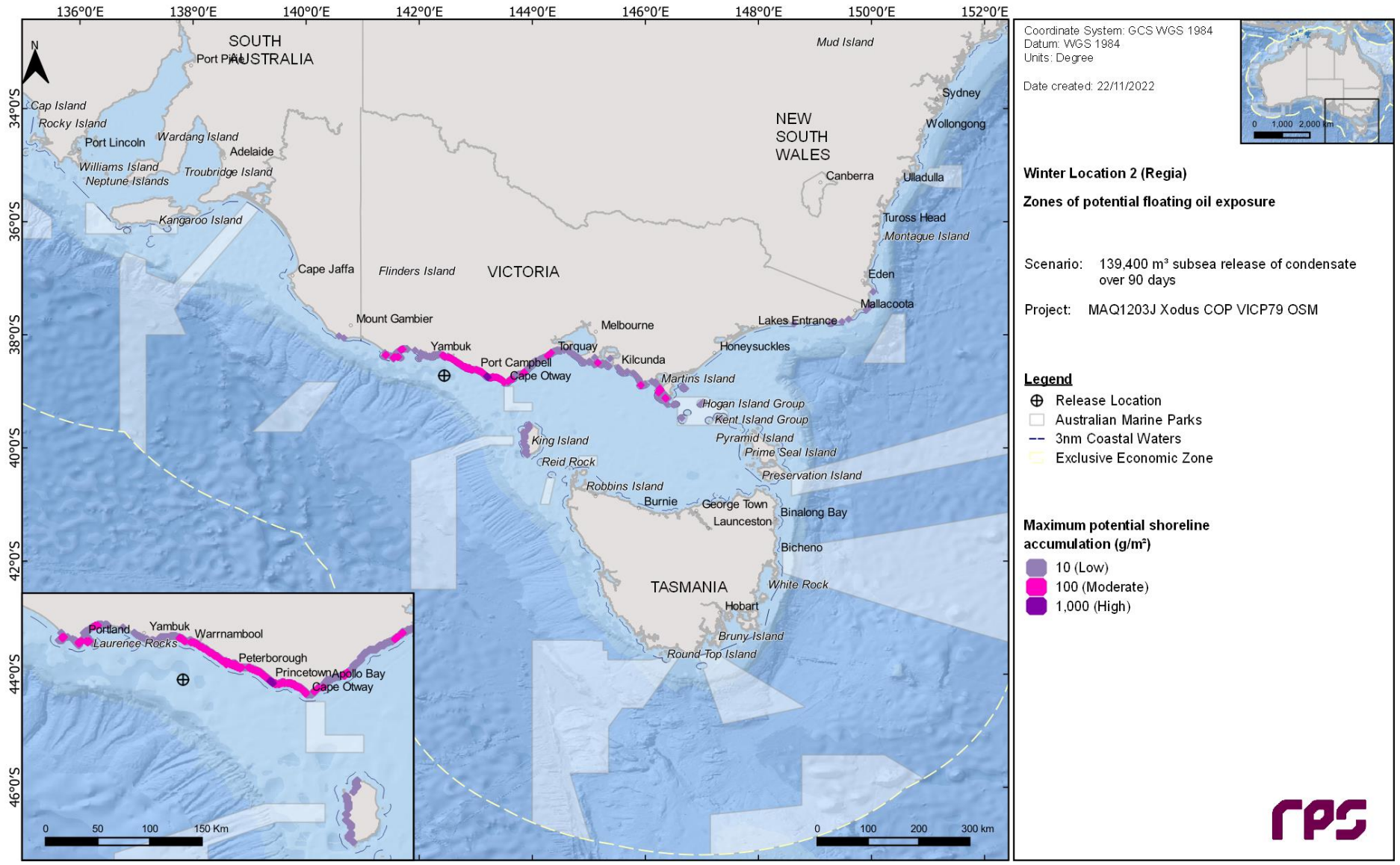


Figure 14.5 Maximum potential shoreline loading from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.2.3 In-water exposure

14.2.3.1 Dissolved Hydrocarbons

Table 14.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 14.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 14.6 and Figure 14.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 14.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	758	458	265
	Maximum distance (km) from release location (99th percentile)	507	337	207
	Direction	ENE	E	E
Winter	Maximum distance (km) from release location	711	584	338
	Maximum distance (km) from release location (99th percentile)	570	369	304
	Direction	ENE	E	E

Table 14.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Mod	High		Low	Mod	High
AMP	Apollo	2,897	93	80	24	2,815	100	97	53
	Beagle	115	8	2	-	182	33	6	-
	Boags	10	-	-	-	35	2	-	-
	Franklin	42	3	-	-	40	2	-	-
	Murray	21	1	-	-	7	-	-	-
	Nelson	145	4	2	-	2	-	-	-
	Zeehan	650	56	28	1	475	20	10	1
IBRA	Bridgewater	781	42	18	1	304	8	4	-
	East Gippsland Lowlands	15	1	-	-	31	3	-	-
	Flinders	50	5	1	-	61	7	1	-
	Gippsland Plain	286	10	4	-	490	36	8	2
	Glenelg Plain	868	52	27	2	687	19	8	1
	King Island	51	7	1	-	126	7	1	-
	Otway Plain	2,607	95	89	31	2,042	100	100	63
	Otway Ranges	2,120	99	91	29	2,803	100	100	58
	Strzelecki Ranges	65	8	3	-	387	37	11	-
	Tasmanian West	6	-	-	-	35	1	-	-
	Warrnambool Plain	4,121	99	94	33	3,328	100	100	60
	Wilsons Promontory	203	12	5	-	684	38	9	1
IMCRA	Batemans Shelf	10	1	-	-	17	1	-	-
	Boags	16	1	-	-	23	2	-	-
	Central Bass Strait	2,694	88	74	14	3,178	95	94	36
	Central Victoria	3,259	91	78	18	2,923	100	95	47
	Coorong	112	4	1	-	58	1	1	-
	Flinders	283	14	6	-	1,168	42	12	2
	Franklin	87	5	1	-	161	3	1	-
	Otway	7,874	100	100	100	13,829	100	100	100
	Twofold Shelf	130	7	2	-	156	13	2	-
	Victorian Embayments	286	9	3	-	237	21	5	-
	Victorian Embayments	13	1	-	-	57	2	1	-
KEF	Bonney Coast Upwelling	1,884	83	77	30	2,187	63	53	20
	Upwelling East of Eden	46	4	-	-	57	4	1	-

	West Tasmania Canyons	1,659	74	55	8	1,104	34	20	3
MNP	Bunurong	41	8	-	-	118	30	3	-
	Cape Howe	19	1	-	-	16	1	-	-
	Churchill Island	35	3	-	-	69	3	1	-
	Discovery Bay	781	41	18	1	214	4	4	-
	Ninety Mile Beach	5	-	-	-	12	1	-	-
	Point Addis	308	17	7	-	420	33	9	1
	Point Hicks	12	2	-	-	36	3	-	-
	Port Phillip Heads	56	5	1	-	206	12	2	-
	Twelve Apostles	3,682	99	96	48	2,705	100	100	66
	Wilsons Promontory	203	12	5	-	800	37	9	1
MP	Batemans	10	1	-	-	7	-	-	-
	Lower South East	54	9	1	-	36	2	-	-
MS	Beware Reef	6	-	-	-	19	1	-	-
	Marengo Reefs	612	71	41	4	871	98	83	8
	Merri	373	51	17	-	456	37	14	1
	Mushroom Reef	109	8	2	-	82	16	2	-
	The Arches	1,197	92	68	7	1,465	100	91	19
Nearshore Waters	Albatross Island	10	1	-	-	3	-	-	-
	Anser Island	149	12	1	-	394	37	6	-
	Bass Coast	179	6	3	-	175	20	4	-
	Bega Valley	8	-	-	-	18	1	-	-
	Black Pyramid	12	1	-	-	14	1	-	-
	Circular Head	47	1	-	-	35	1	-	-
	Colac Otway	2,607	97	89	31	2,556	100	100	63
	Corangamite	4,121	99	94	33	3,328	100	100	60
	Curtis Island	50	4	1	-	17	1	-	-
	East Gippsland	15	1	-	-	31	3	-	-
	French Island	24	1	-	-	142	5	1	-
	Gabo Island	8	0	-	-	17	1	-	-
	Glenelg	868	52	27	2	687	19	8	1
	Glennie Group	203	12	5	-	684	37	9	1
	Grant	75	4	1	-	27	1	-	-
	Greater Geelong	168	8	1	-	206	10	2	-
	Hogan Island Group	45	5	-	-	61	7	1	-
	Hunter Island	19	1	-	-	4	-	-	-
	Kanowna Island	149	11	1	-	394	38	6	-
	King Island	51	7	1	-	126	7	1	-
	Lady Julia Percy Island	781	66	40	4	536	45	26	1
	Laurence Rocks	435	52	28	1	875	25	8	1
	Moncoeur Islands	148	7	2	-	89	29	2	-
	Mornington Peninsula	153	10	3	-	307	29	5	-

	Moyne	2,225	97	79	20	1,766	99	96	35
	Mud Island	10	-	-	-	33	5	-	-
	Norman Island	122	10	3	-	537	25	7	1
	Phillip Island	286	10	4	-	207	29	6	-
	Reid Rock	20	4	-	-	20	1	-	-
	Rodondo Island	101	8	1	-	162	34	5	-
	Seal Islands	22	1	-	-	43	7	-	-
	Shellback Island	61	10	2	-	340	24	7	-
	Skull Rock	92	11	1	-	394	38	7	-
	South Gippsland	133	10	3	-	490	37	11	2
	Surf Coast	300	18	8	-	386	44	11	-
	Three Hummock Island	11	1	-	-	1	-	-	-
	Warrnambool	772	70	38	3	1,331	66	40	5
	Wellington	11	1	-	-	57	3	1	-
	West Coast	5	-	-	-	29	1	-	-
NPS4	Bunurong Marine Park	107	5	2	-	129	18	4	-
	Corner Inlet Marine and Coastal Park	13	1	-	-	28	1	-	-
	Nooramunga Marine and Coastal Park	4	-	-	-	57	2	1	-
	Shallow Inlet Marine and Coastal Park	8	-	-	-	21	3	0	-
	Wilsons Promontory Marine Park	83	7	2	-	311	21	7	-
	Wilsons Promontory Marine Reserve	188	9	4	-	396	31	8	-
Ramsar	Corner Inlet	13	1	-	-	57	2	1	-
	Glenelg Estuary and Discovery Bay Wetlands	68	12	2	-	5	-	-	-
	Lavinia	18	1	-	-	5	-	-	-
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	91	4	1	-	199	4	2	-
	Western Port	67	3	1	-	184	6	2	-
RSB	Bell Reef	13	3	-	-	13	1	-	-
	Beware Reef	6	-	-	-	19	1	-	-
	Bravenes Rock	2,155	94	92	40	1,811	100	100	63
	Cody Bank	118	13	1	-	1,469	44	12	2
	Cutter Rock	40	4	-	-	52	8	1	-
	New Zealand Star Bank	12	1	-	-	11	1	-	-
	New South Wales	15	1	-	-	19	1	-	-

State Waters	South Australia	84	9	1	-	78	2	1	-
	Tasmania	196	9	2	-	295	15	4	-
	Victoria	4,121	100	98	61	4,699	100	100	75

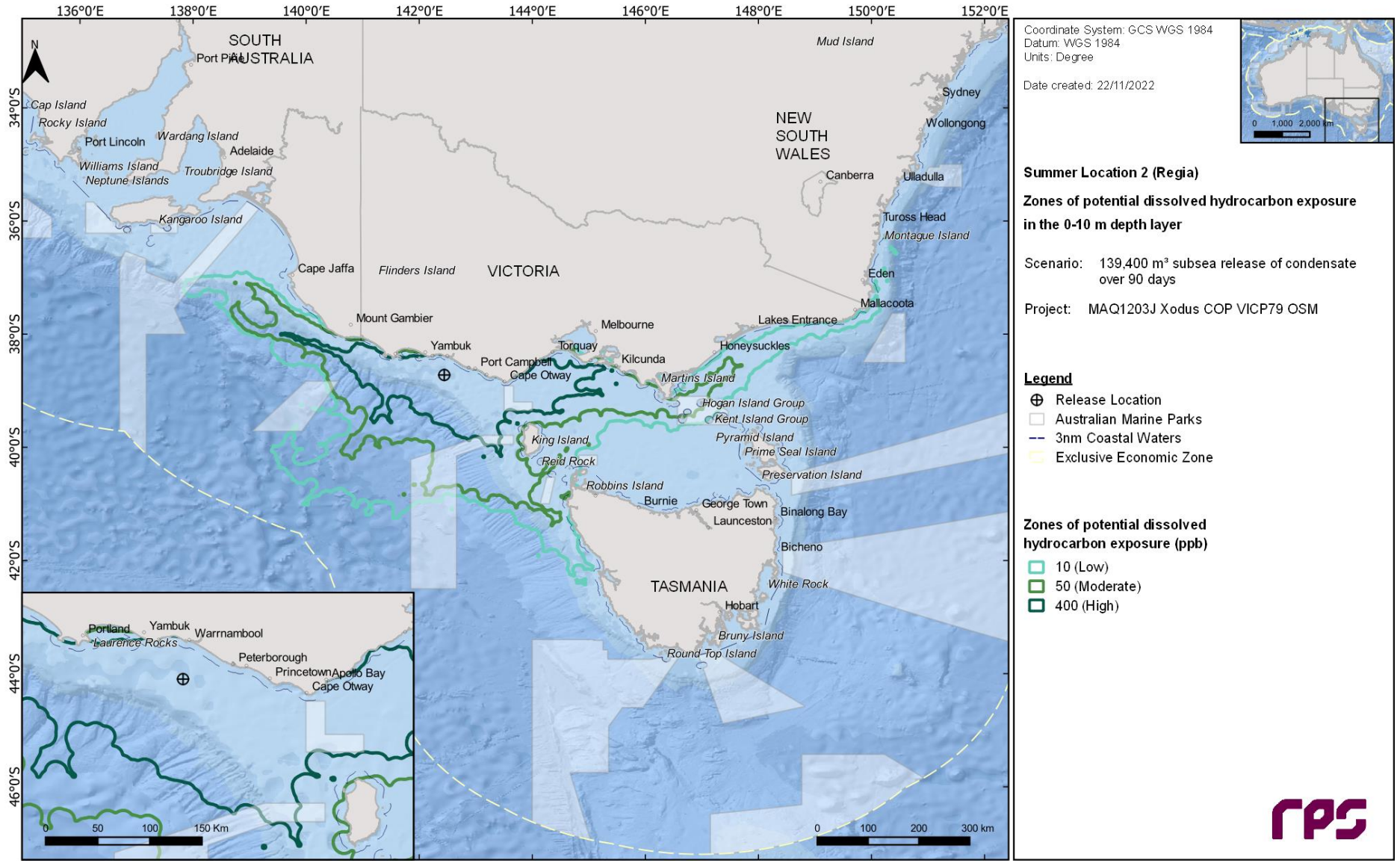


Figure 14.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

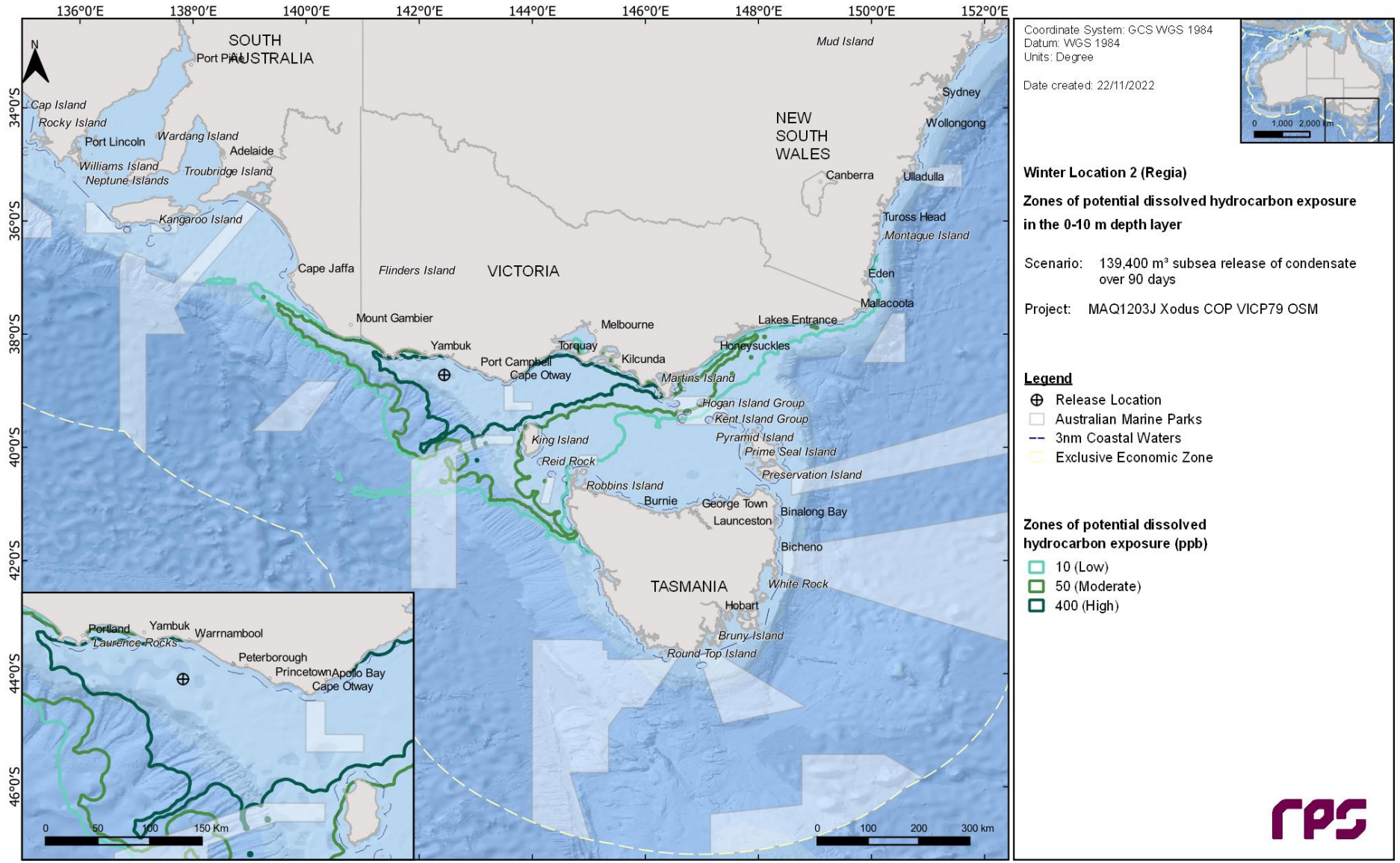


Figure 14.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.2.3.2 Entrained Hydrocarbons

Table 14.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 14.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 14.8 and Figure 14.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 14.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	879	437
	Maximum distance (km) from release location (99^{th} percentile)	819	375
	Direction	ENE	E
Winter	Maximum distance (km) from release location	856	477
	Maximum distance (km) from release location (99^{th} percentile)	822	396
	Direction	E	E

Table 14.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	1,035	98	89	1,408	100	100
	Beagle	183	43	3	187	77	30
	Boags	35	8	-	37	4	-
	East Gippsland	27	6	-	54	28	-
	Flinders	14	1	-	14	4	-
	Franklin	112	31	1	54	11	-
	Murray	28	14	-	8	-	-
	Nelson	125	15	3	53	1	-
	Zeehan	418	77	29	301	49	14
IBRA	Bateman	22	1	-	30	13	-
	Bridgewater	402	62	34	431	35	9
	East Gippsland Lowlands	52	22	-	52	55	-
	Flinders	121	32	2	133	69	4
	Gippsland Plain	193	48	5	336	86	26
	Glenelg Plain	548	69	48	831	41	24
	King Island	179	59	5	181	54	4
	Otway Plain	1,564	99	93	1,604	100	100
	Otway Ranges	1,112	99	98	1,217	100	100
	South East Coastal Ranges	10	1	-	19	8	-
	Strzelecki Ranges	94	46	-	199	80	11
	Tasmanian West	18	10	-	18	5	-
	Warrnambool Plain	2,365	100	99	2,472	100	100
	Wilsons Promontory	445	48	8	486	80	46
IMCRA	Batemans Shelf	40	12	-	62	21	-
	Boags	24	17	-	30	7	-
	Central Bass Strait	1,062	94	81	1,225	100	95
	Central Victoria	1,113	96	84	1,270	100	100
	Coorong	108	28	1	29	2	-

	Davey	18	4	-	4	-	-
	Flinders	476	50	9	487	80	46
	Franklin	44	33	-	62	9	-
	Otway	12,685	100	100	14,843	100	100
	Twofold Shelf	146	39	2	149	70	15
	Victorian Embayments	125	43	3	257	78	8
KEF	Big Horseshoe Canyon	34	16	-	26	28	-
	Bonney Coast Upwelling	1,075	83	79	1,078	70	59
	Canyons on the eastern continental slope	45	8	-	36	7	-
	Kangaroo Island Pool, canyons and adjacent shelf break, and Eyre Peninsula upwellings	13	1	-	1	-	-
	Shelf rocky reefs	27	5	-	37	11	-
	Upwelling East of Eden	86	30	-	79	65	-
	West Tasmania Canyons	619	89	61	581	55	27
Nearshore Waters	Albatross Island	16	14	-	12	2	-
	Anser Island	345	47	7	355	79	42
	Bass Coast	81	47	-	336	86	11
	Bega Valley	50	17	-	50	49	-
	Black Pyramid	68	26	-	45	10	-
	Circular Head	21	10	-	20	7	-
	Colac Otway	1,564	99	97	1,604	100	100
	Corangamite	2,365	100	99	2,472	100	100
	Curtis Island	98	32	-	95	43	-
	East Gippsland	52	22	-	52	54	-
	Eurobodalla	13	1	-	20	11	-
	Frankston	5	-	-	17	4	-
	French Island	31	26	-	106	50	2
	Gabo Island	48	17	-	51	55	0
	Glenelg	548	69	48	831	41	24
	Glennie Group	445	48	8	486	80	46
	Grant	111	46	5	60	2	-
	Greater Geelong	140	38	5	148	69	7

	Hogan Island Group	121	32	2	133	69	4
	Hunter Island	14	6	-	15	3	-
	Kanowna Island	345	47	6	332	79	43
	Kent Island Group	77	16	-	35	29	-
	King Island	179	59	5	181	54	4
	Lady Julia Percy Island	814	80	61	815	60	47
	Laurence Rocks	563	68	57	722	43	28
	Moncoeur Islands	184	41	3	191	75	30
	Montague Island	22	1	-	30	13	-
	Mornington Peninsula	138	47	5	274	80	12
	Moyne	2,170	100	87	2,315	100	92
	Mud Island	64	35	-	67	57	-
	Norman Island	394	44	6	434	79	39
	Phillip Island	107	48	2	231	85	9
	Pyramid Island	11	2	-	11	1	-
	Reid Rock	43	47	-	46	27	-
	Rodondo Island	204	43	2	199	75	30
	Seal Islands	60	34	-	84	67	0
	Shellback Island	198	43	4	237	79	25
	Skull Rock	322	48	5	332	79	43
	South Gippsland	337	46	5	363	84	41
	Surf Coast	264	66	4	259	85	11
	Three Hummock Island	11	1	-	8	-	-
	Warrnambool	867	87	71	930	81	56
	Wattle Range	39	27	-	16	1	-
	Wellington	9	-	-	10	1	-
	West Coast	18	10	-	15	4	-
MNP	Bunurong	76	53	-	217	87	11
	Cape Howe	57	21	-	61	57	-
	Churchill Island	91	39	-	67	62	-
	Discovery Bay	289	61	29	229	29	2
	French Island	8	-	-	23	8	0
	Point Addis	303	61	9	311	83	24
	Point Hicks	40	25	-	43	61	-
	Port Phillip Heads	129	40	5	139	69	9

	Twelve Apostles	2,365	100	99	2,549	100	100
	Wilsons Promontory	476	47	9	487	80	45
	Yaringa	3	-	-	11	2	-
MP	Batemans	28	1	-	38	13	-
	Lower South East	176	47	4	85	5	-
	Upper South East	12	2	-	9	-	-
MS	Beware Reef	21	5	-	20	19	-
	Marengo Reefs	358	94	68	499	100	85
	Merri	571	78	52	713	61	36
	Mushroom Reef	61	41	-	216	77	7
	The Arches	899	100	87	991	100	91
NP	Kent Group	77	14	0	44	27	-
NPS4	Bunurong Marine Park	59	43	0	316	85	10
	Corner Inlet Marine and Coastal Park	43	32	-	71	57	-
	Nooramunga Marine and Coastal Park	6	0	-	10	1	-
	Shallow Inlet Marine and Coastal Park	51	28	-	57	59	-
	Wilsons Promontory Marine Park	269	43	4	277	79	32
	Wilsons Promontory Marine Reserve	425	46	8	434	80	46
Ramsar	Corner Inlet	43	32	-	71	57	-
	Glenelg Estuary and Discovery Bay Wetlands	254	40	18	80	9	-
	Lavinia	22	8	-	9	0	-
	Piccaninnie Ponds Karst Wetlands	60	30	-	40	2	-
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	114	28	2	113	61	6
	Western Port	91	39	-	161	60	3
RSB	Bell Reef	49	50	-	58	25	-
	Beware Reef	21	5	-	20	19	-
	Bravenes Rock	1,130	99	97	909	100	100

	Brown Rocks	10	1	-	9	-	-
	Cody Bank	104	57	1	143	86	15
	Cutter Rock	70	35	-	109	69	1
	New Zealand Star Bank	64	30	-	63	63	-
State Waters	New South Wales	61	21	-	67	53	-
	South Australia	185	49	5	86	5	-
	Tasmania	286	60	9	199	69	15
	Victoria	2,365	100	100	2,549	100	100

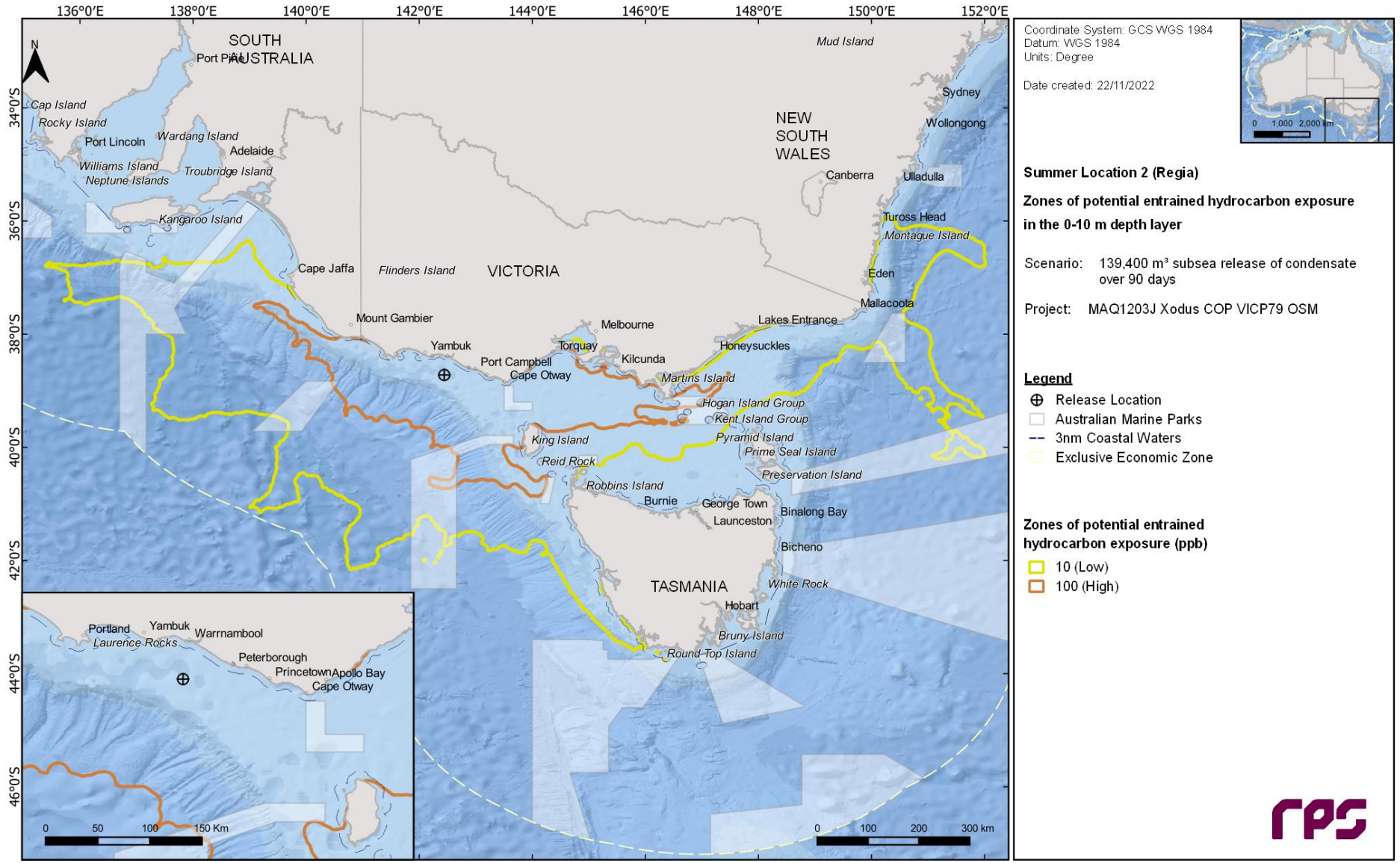


Figure 14.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

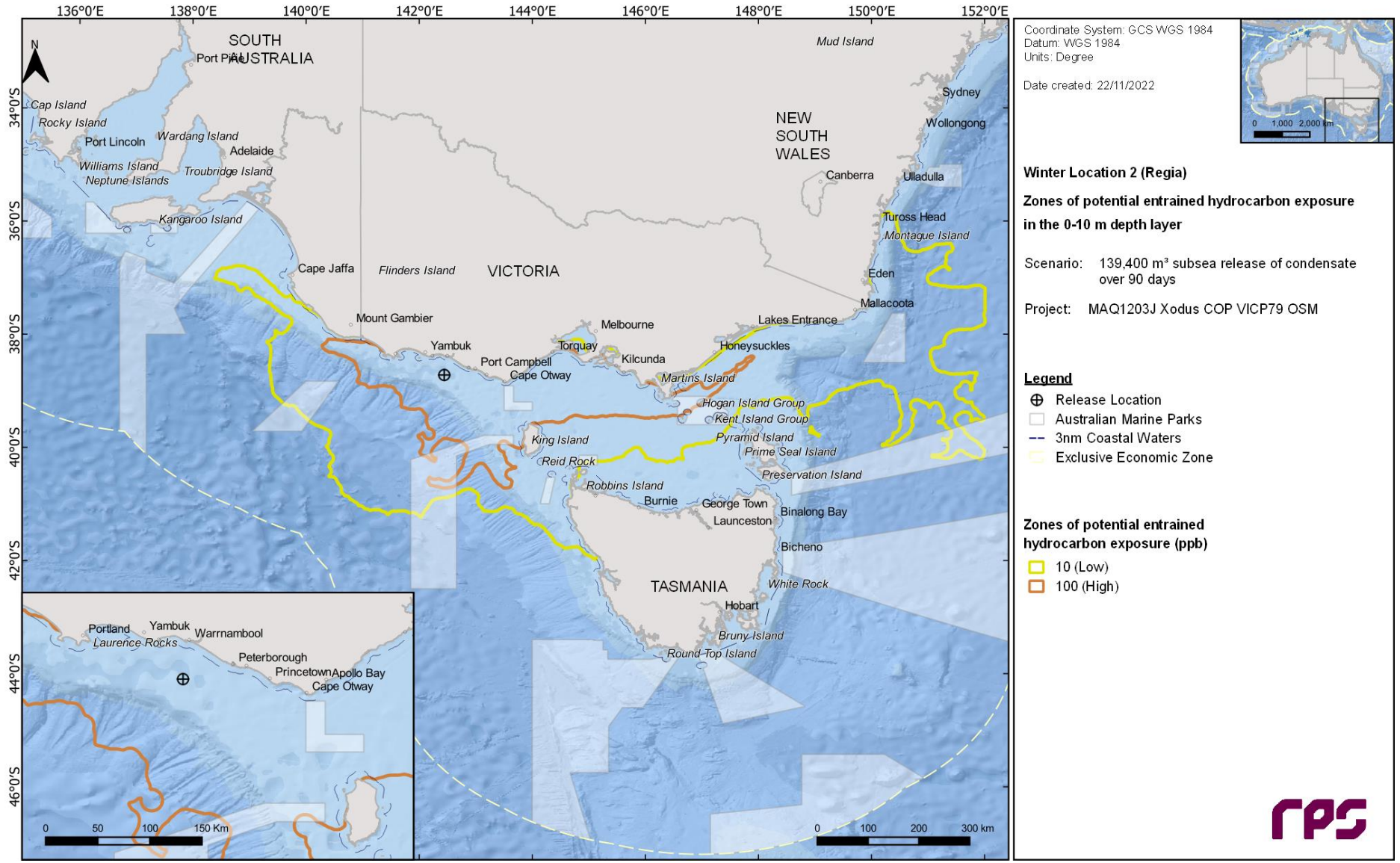


Figure 14.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

14.3 Deterministic Analysis

14.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 2 pm 5th July 2010.

Figure 14.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 11.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 14.11 and Figure 14.12, respectively.

Figure 14.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 75,660 m^3 (~54%) was lost to the atmosphere through evaporation. Approximately, 61,600 m^3 (~44%) of the released volume decayed, while approximately 2,055 m^3 (~1%) was predicted to remain within the water column and approximately 97 m^3 (<0.1%) was present on the shorelines.

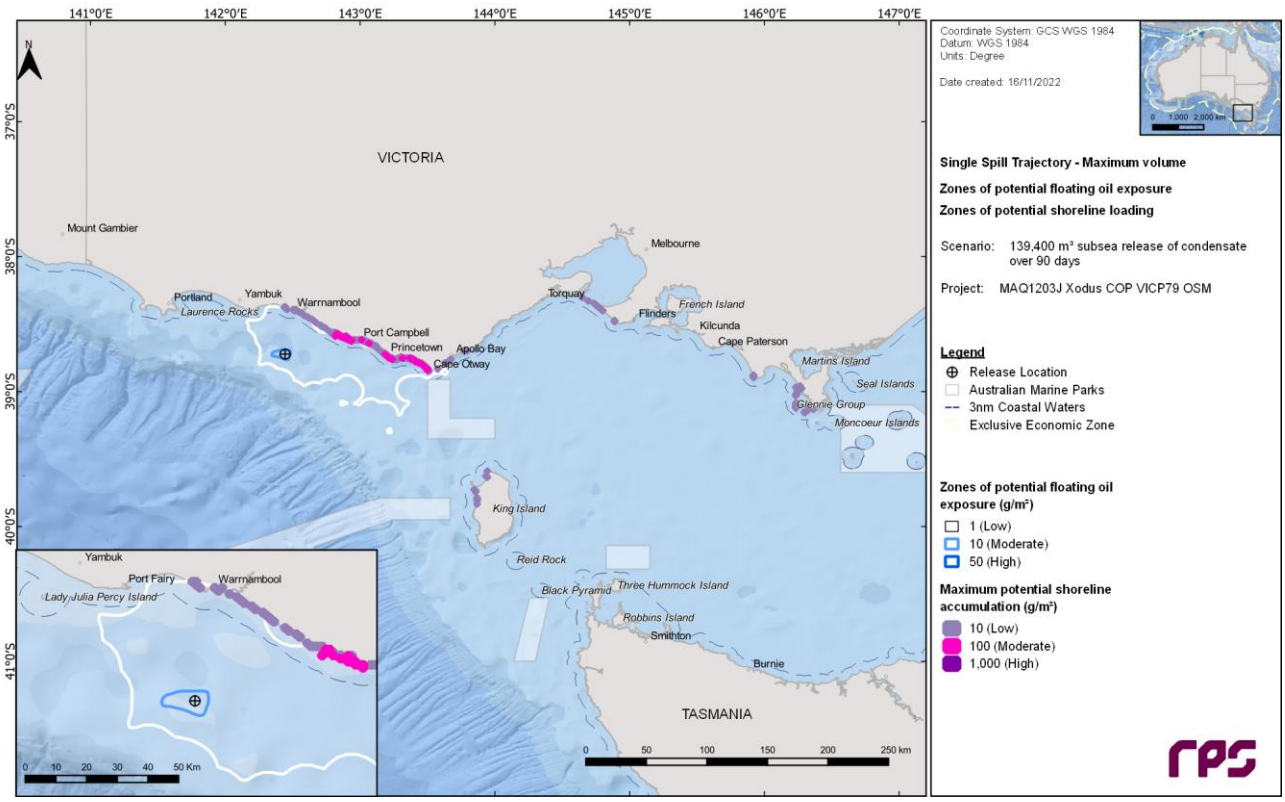


Figure 14.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

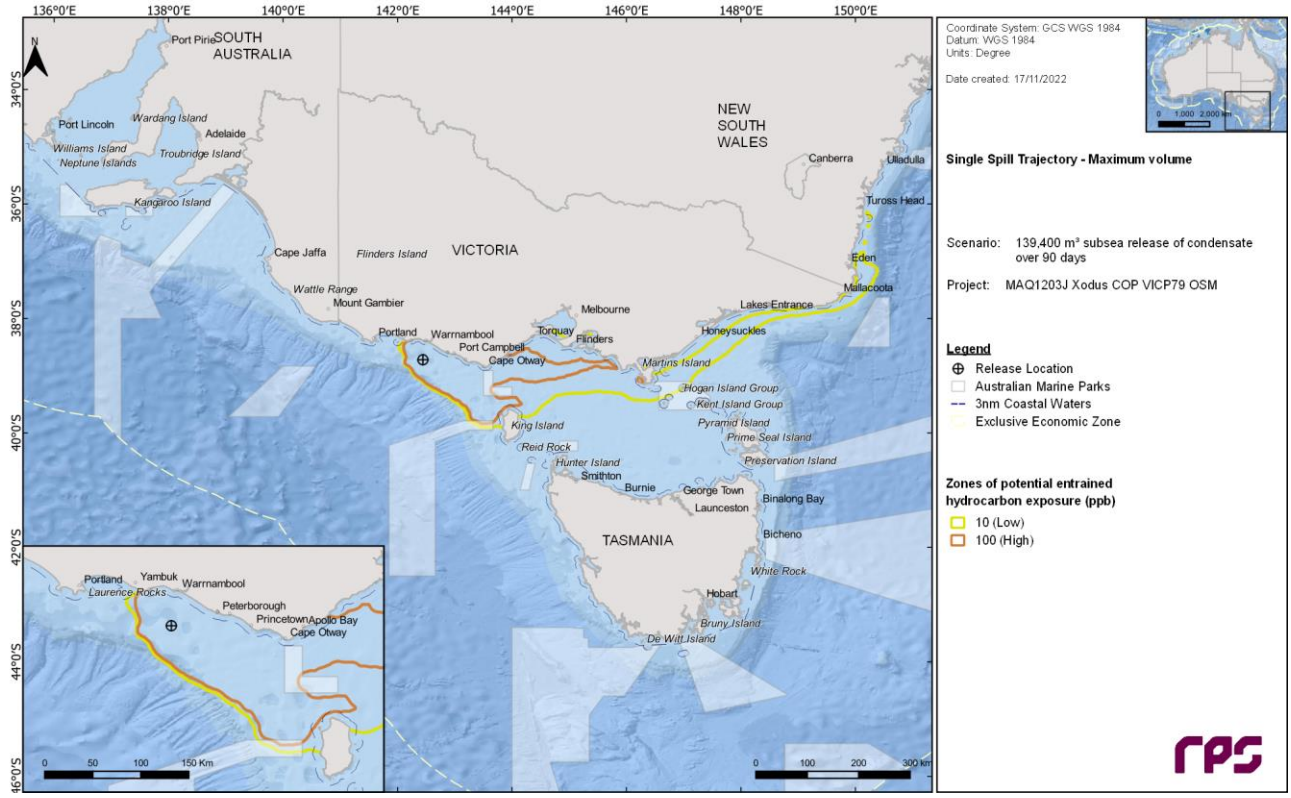


Figure 14.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

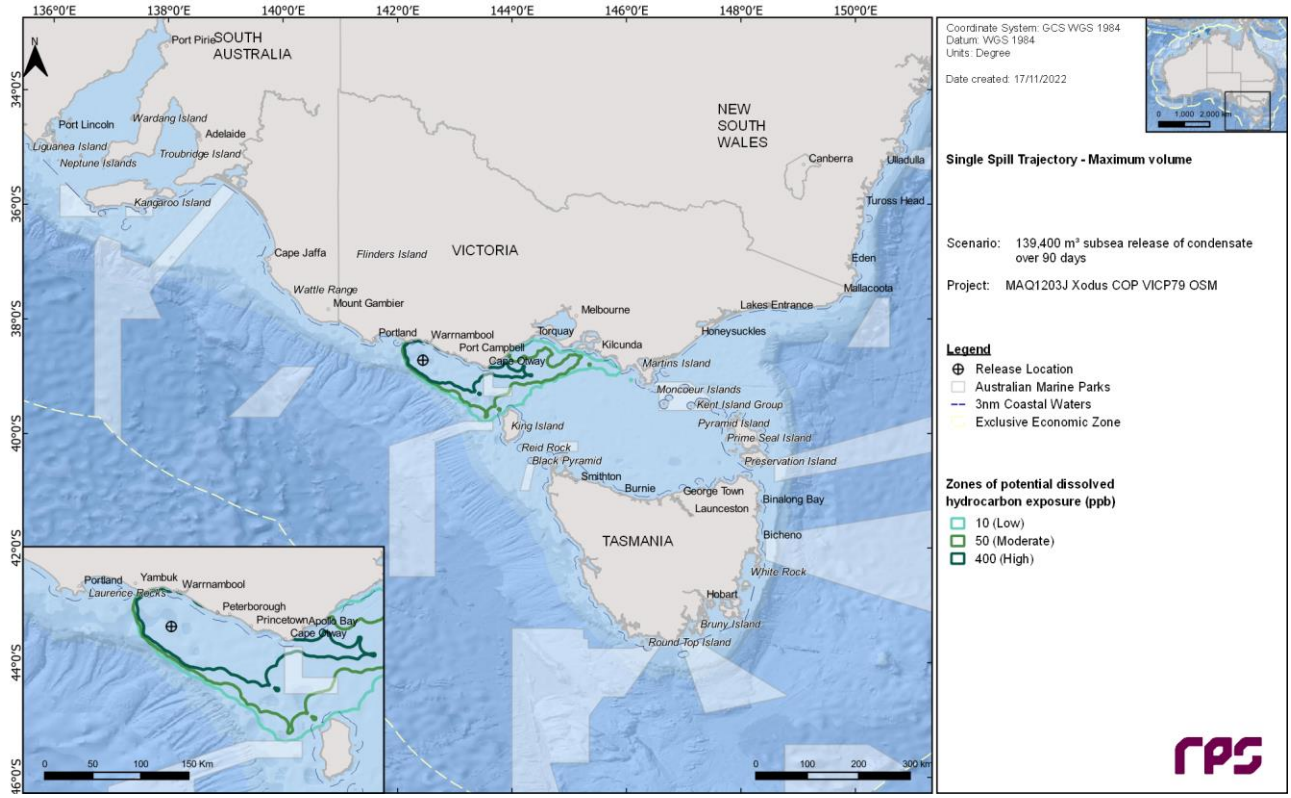


Figure 14.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

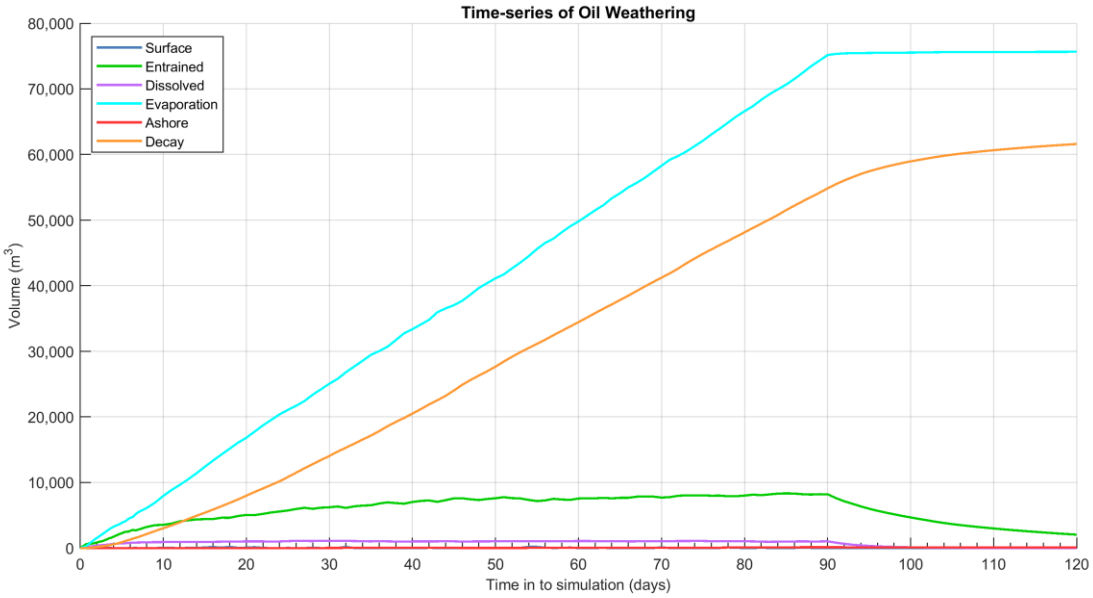


Figure 14.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 2.

15 LOCATION 3 LOWC RESULTS

This scenario examined the potential exposure following a LOWC at Location 3. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 15.1 presents the EMBA, Section 15.2 shows the seasonal (or stochastic) results, while Section 15.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

15.1 EMBA

Figure 15.1 shows the EMBA for Location 3. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

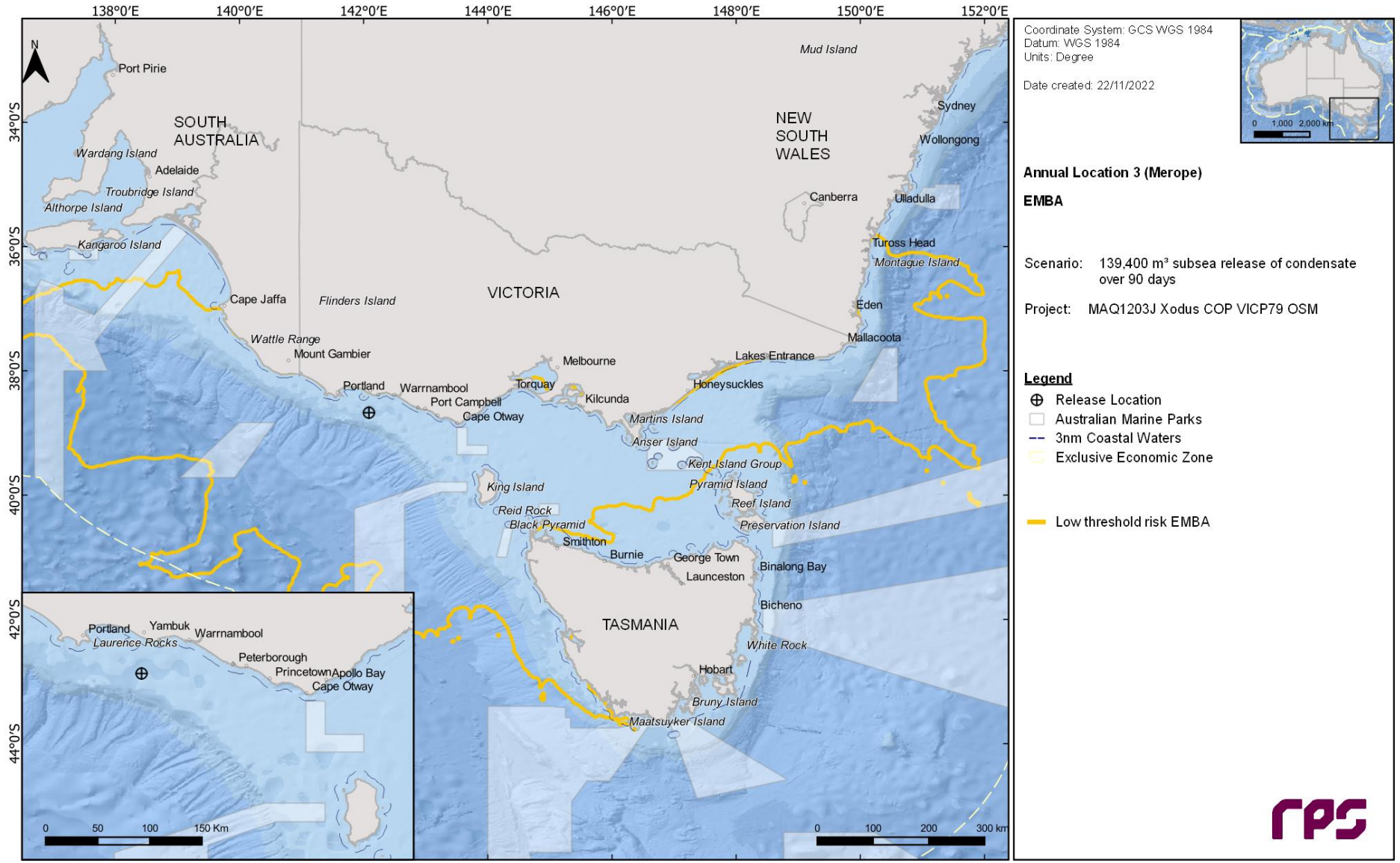


Figure 15.1 Predicted low threshold EMBA from a subsea LOWC at Location 3. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

15.2 Stochastic Analysis

15.2.1 Floating Oil Exposure

Table 15.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 15.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 15.2 to Figure 15.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 1,325 km^2 and 1,070 km^2, respectively.

Table 15.1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	175.7	10.1	0.4
	Maximum distance (km) from release location (99^{th} percentile)	118.8	9.7	0.4
	Direction	E	ENE	NE
Winter	Maximum distance (km) from release location	165.2	10.1	0.4
	Maximum distance (km) from release location (99^{th} percentile)	124.9	8.7	0.3
	Direction	E	E	E

Table 15.2 Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 3 for each season. Results were calculated from 100 spill simulations per season.

	Receptor	Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	7	-	-	3.92	-	-	49	-	-	2.83	-	-
	Beagle	-	-	-	-	-	-	-	-	-	-	-	-
	Zeehan	-	-	-	-	-	-	-	-	-	-	-	-
IBRA	Bridgewater	7	-	-	11.92	-	-	13	-	-	7.92	-	-
	Gippsland Plain	-	-	-	-	-	-	3	-	-	57.58	-	-
	Glenelg Plain	9	-	-	11	-	-	18	-	-	7.67	-	-
	King Island	-	-	-	-	-	-	-	-	-	-	-	-
	Otway Plain	12	-	-	15.54	-	-	50	-	-	5.63	-	-
	Otway Ranges	7	-	-	20.42	-	-	28	-	-	10.67	-	-
	Strzelecki Ranges	-	-	-	-	-	-	-	-	-	-	-	-
	Warrnambool Plain	45	-	-	2.75	-	-	75	-	-	5.13	-	-
	Wilsons Promontory	-	-	-	-	-	-	4	-	-	28.54	-	-
IMCRA	Central Bass Strait	5	-	-	4.71	-	-	47	-	-	3	-	-
	Central Victoria	6	-	-	14.46	-	-	38	-	-	6.13	-	-
	Flinders	-	-	-	-	-	-	7	-	-	28.54	-	-
	Otway	100	100	1	0.04	0.08	67.46	100	100	1	0.04	0.08	11.13
	Twofold Shelf	-	-	-	-	-	-	-	-	-	-	-	-
KEF	Bonney Coast Upwelling	84	-	-	3.38	-	-	78	-	-	1.46	-	-
	West Tasmania Canyons	5	-	-	8.58	-	-	12	-	-	3.42	-	-
MNP	Discovery Bay	1	-	-	31.79	-	-	-	-	-	-	-	-
	Twelve Apostles	22	-	-	6.92	-	-	74	-	-	9.13	-	-
	Wilsons Promontory	-	-	-	-	-	-	4	-	-	28.54	-	-
MS	Merri	-	-	-	-	-	-	-	-	-	-	-	-
	The Arches	1	-	-	26.58	-	-	6	-	-	12.96	-	-

NPS4	Wilsons Promontory Marine Park	-	-	-	-	-	-	3	-	-	57.58	-	-
RSB	Bravenes Rock	-	-	-	-	-	-	1	-	-	23.75	-	-
Nearshore Waters	Anser Island	-	-	-	-	-	-	2	-	-	28.54	-	-
	Colac Otway	15	-	-	15.54	-	-	56	-	-	5.63	-	-
	Corangamite	34	-	-	5.04	-	-	69	-	-	5.71	-	-
	Glenelg	9	-	-	11	-	-	18	-	-	7.67	-	-
	Glennie Group	-	-	-	-	-	-	-	-	-	-	-	-
	Kanowna Island	-	-	-	-	-	-	-	-	-	-	-	-
	King Island	-	-	-	-	-	-	-	-	-	-	-	-
	Lady Julia Percy Island	5	-	-	9.33	-	-	4	-	-	33	-	-
	Laurence Rocks	3	-	-	11.33	-	-	3	-	-	52.42	-	-
	Mornington Peninsula	-	-	-	-	-	-	-	-	-	-	-	-
	Moyne	33	-	-	2.75	-	-	51	-	-	5.13	-	-
	Norman Island	-	-	-	-	-	-	-	-	-	-	-	-
	Shellback Island	-	-	-	-	-	-	-	-	-	-	-	-
	Skull Rock	-	-	-	-	-	-	-	-	-	-	-	-
	South Gippsland	-	-	-	-	-	-	5	-	-	35.08	-	-
	Warrnambool	3	-	-	49.5	-	-	9	-	-	9.04	-	-
State Waters	Tasmania	-	-	-	-	-	-	-	-	-	-	-	-
	Victoria	81	-	-	2.5	-	-	97	-	-	3	-	-

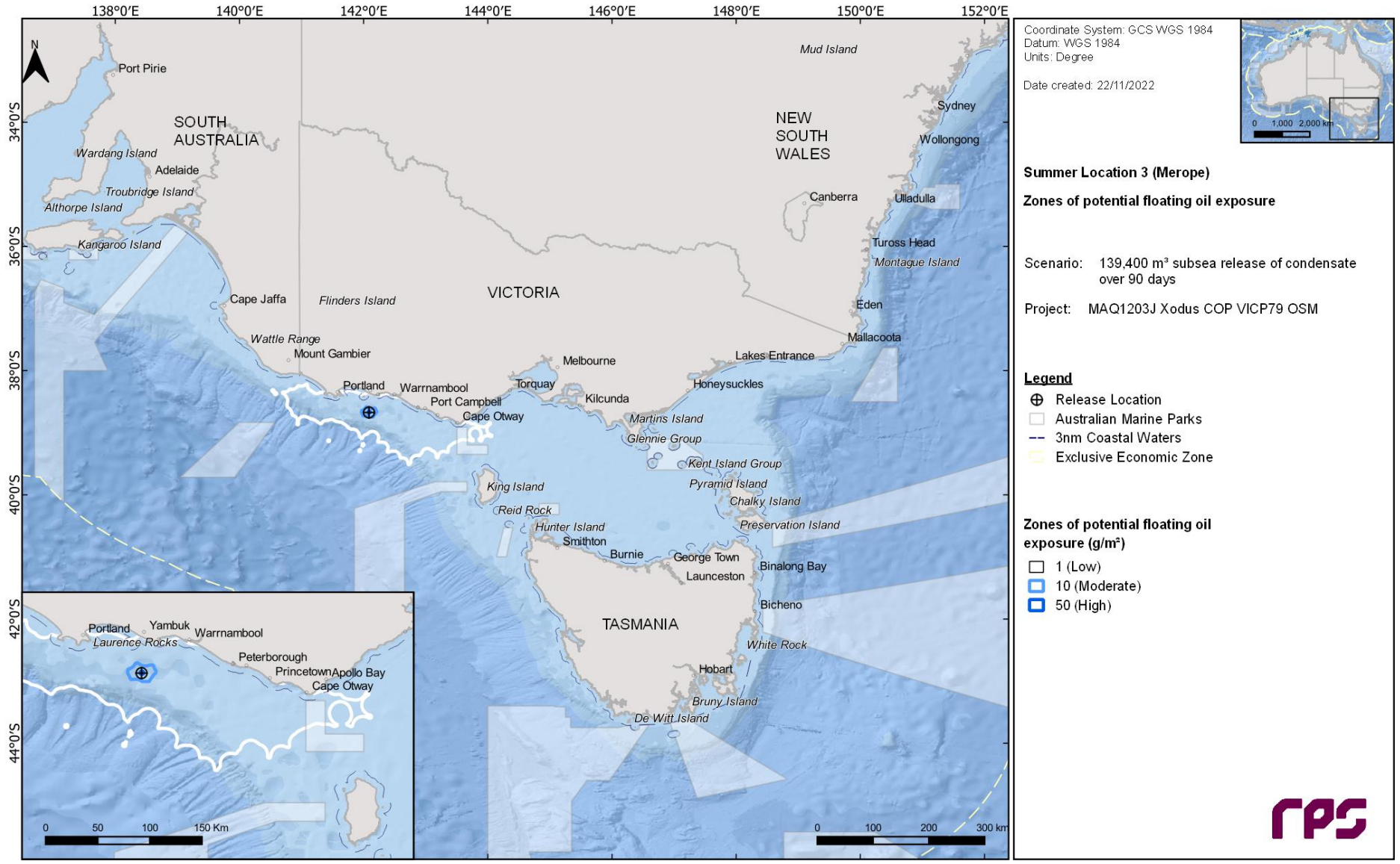


Figure 15.2 Zones of potential floating oil exposure from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

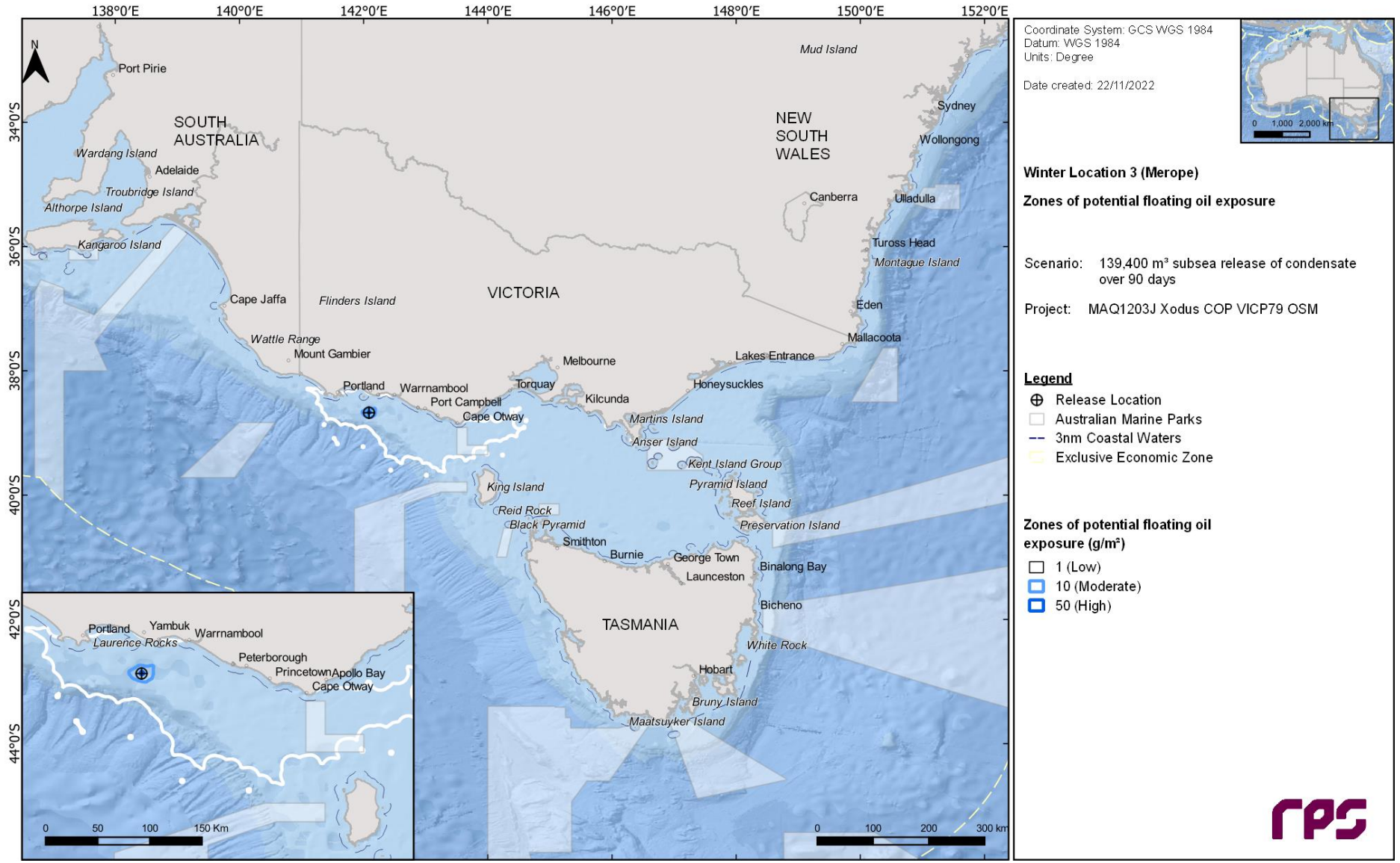


Figure 15.3 Zones of potential floating oil exposure from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.2.2 Shoreline Accumulation

Table 15.3 summarises the predicted accumulation on any shoreline during each season.

Table 15.4 and Table 15.5 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 15.4 and Figure 15.5.

Table 15.3 Summary of accumulation on any shoreline from a subsea LOWC at Location 3 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	100	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	3.79	4.04
Maximum volume of hydrocarbons ashore (m^3)	66.6	140.0
Average volume of hydrocarbons ashore (m^3)	13.7	33.7
Maximum length of the shoreline at **10 g/m^2** (km)	192	231
Average shoreline length (km) at **10 g/m^2** (km)	65.6	86.6
Maximum length of the shoreline at **100 g/m^2** (km)	20	42
Average shoreline length (km) at **100 g/m^2** (km)	5.4	10.7
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 15.4 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 3 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	5	-	-	46.5	-	-	23	35	< 0.1	0.4	1.3	-	-	1.9	-	-
Bass Coast	2	-	-	28.75	-	-	15	19	< 0.1	0.7	1.4	-	-	1.9	-	-
Colac Otway	83	25	-	6.54	12.92	-	30	279	4.6	22.6	14.9	2.5	-	44.9	4.8	-
Corangamite	83	35	-	5.29	8	-	35	444	3.9	25.9	18.1	2.4	-	39.2	10.5	-
Curtis Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
East Gippsland	3	-	-	51.96	-	-	12	16	< 0.1	0.6	1.6	-	-	1.9	-	-
French Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Glenelg	72	12	-	6.75	11.79	-	27	813	1.5	45.8	13.7	4.3	-	54.5	10.5	-
Glennie Group	6	-	-	46.54	-	-	15	20	< 0.1	0.5	1.3	-	-	1.9	-	-
Grant	16	-	-	20.13	-	-	14	46	< 0.1	0.8	3.2	-	-	9.6	-	-
Greater Geelong	6	-	-	31.54	-	-	15	22	< 0.1	0.6	1.9	-	-	5.7	-	-
Hogan Island Group	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Kanowna Island	4	-	-	43.29	-	-	19	29	< 0.1	1.4	1.9	-	-	2.9	-	-
Kent Island Group	-	-	-	-	-	-	-	-	< 0.1	0.2	-	-	-	-	-	-
King Island	16	4	-	27.75	79.46	-	20	184	0.9	7.8	4.7	1	-	9.6	1	-
Lady Julia Percy Island	55	3	-	9.08	9.46	-	39	203	0.1	0.7	1	1	-	1	1	-
Laurence Rocks	47	3	-	10.5	24.17	-	25	161	0.1	3.1	2.2	1	-	2.9	1	-
Moncoeur Islands	-	-	-	-	-	-	-	-	< 0.1	0.5	-	-	-	-	-	-
Mornington Peninsula	11	-	-	18.38	-	-	15	39	0.2	1.9	3	-	-	4.8	-	-
Moyne	96	23	-	3.79	4.42	-	32	544	2.6	29	14.7	5.1	-	47.8	12.4	-
Norman Island	5	-	-	45.25	-	-	22	46	< 0.1	0.8	1.7	-	-	2.9	-	-
Phillip Island	4	-	-	66.92	-	-	16	23	0.2	2.5	1.7	-	-	2.9	-	-
Pyramid Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Rodondo Island	1	-	-	62.29	-	-	11	11	0.2	0.2	1	-	-	1	-	-
Seal Islands	-	-	-	-	-	-	-	-	< 0.1	0.2	-	-	-	-	-	-

Shellback Island	1	-	-	91.88	-	-	10	10	0.2	0.2	1	-	-	1	-	-
Skull Rock	4	-	-	43.29	-	-	20	29	< 0.1	1.2	1.4	-	-	1.9	-	-
South Gippsland	13	-	-	28.79	-	-	17	71	1.1	16.5	9.7	-	-	26.8	-	-
Surf Coast	8	-	-	22.42	-	-	23	78	0.4	7.1	13.7	-	-	25.8	-	-
Warrnambool	63	6	-	7.63	16.25	-	24	169	0.8	13.3	8.5	1.4	-	19.1	3.8	-
Wattle Range	3	-	-	21.42	-	-	14	15	< 0.1	0.1	1.9	-	-	2.9	-	-

Table 15.5 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 3 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	31	-	-	22.67	-	-	25	61	0.1	0.8	1	-	-	1.9	-	-
Bass Coast	22	-	-	23.08	-	-	14	25	0.2	1.4	1.7	-	-	3.8	-	-
Colac Otway	98	52	-	6.17	9.75	-	35	297	8	19.8	18.9	2.8	-	44.9	9.6	-
Corangamite	99	58	-	5.00	9.13	-	47	600	13.2	54.3	22	6.1	-	47.8	16.3	-
Curtis Island	2	-	-	74.67	-	-	12	13	< 0.1	0.2	1	-	-	1	-	-
East Gippsland	9	-	-	31.96	-	-	16	26	< 0.1	0.7	1.3	-	-	1.9	-	-
French Island	3	-	-	88.71	-	-	17	19	< 0.1	0.5	1.3	-	-	1.9	-	-
Glenelg	41	14	-	7.96	16.46	-	35	739	3	48.5	11.8	3.1	-	52.6	7.6	-
Glennie Group	38	-	-	20.88	-	-	17	69	0.3	2.0	2.9	-	-	7.6	-	-
Grant	1	-	-	65.92	-	-	12	12	0.8	0.8	1	-	-	1	-	-
Greater Geelong	3	-	-	62.75	-	-	17	22	< 0.1	1.0	1.6	-	-	1.9	-	-
Hogan Island Group	9	-	-	26.96	-	-	15	21	< 0.1	0.4	1.3	-	-	1.9	-	-
Kanowna Island	32	-	-	20.33	-	-	19	63	0.2	1.2	1.4	-	-	2.9	-	-
Kent Island Group	4	-	-	19.25	-	-	13	17	< 0.1	0.6	1.9	-	-	2.9	-	-
King Island	61	4	-	13.58	18.63	-	17	170	1.2	6.9	6.1	1	-	19.1	1	-
Lady Julia Percy Island	23	-	-	7.96	-	-	24	43	< 0.1	0.5	1	-	-	1	-	-
Laurence Rocks	28	2	-	8.54	66.67	-	21	120	0.2	2.8	1.8	1	-	2.9	1	-
Moncoeur Islands	16	-	-	20.13	-	-	13	24	< 0.1	0.6	1.4	-	-	2.9	-	-
Mornington Peninsula	21	-	-	28.04	-	-	17	80	0.3	2.2	2.5	-	-	4.8	-	-
Moyne	80	45	-	4.04	8.88	-	46	879	10.1	79.7	19.2	5.4	-	51.6	18.2	-
Norman Island	49	-	-	19.96	-	-	22	78	0.3	1.4	2.1	-	-	3.8	-	-
Phillip Island	18	-	-	28.75	-	-	18	77	0.2	2.7	1.9	-	-	5.7	-	-
Pyramid Island	1	-	-	28.13	-	-	12	12	< 0.1	0.1	1	-	-	1	-	-

Rodondo Island	7	-	-	35.92	-	-	17	32	< 0.1	0.4	1	-	-	1	-	-
Seal Islands	4	-	-	28.08	-	-	17	35	< 0.1	0.7	1.2	-	-	1.9	-	-
Shellback Island	20	-	-	20.04	-	-	30	82	< 0.1	1	1	-	-	1	-	-
Skull Rock	30	-	-	20.33	-	-	20	63	0.1	1.1	1.4	-	-	1.9	-	-
South Gippsland	73	9	-	19.25	57.92	-	24	204	2.6	18.2	10.3	1.4	-	43	3.8	-
Surf Coast	14	-	-	11.29	-	-	18	84	0.5	9.2	7.8	-	-	22.9	-	-
Warrnambool	58	15	-	7.42	20.13	-	30	240	2	11.2	7.2	2.2	-	19.1	3.8	-
Wattle Range	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-

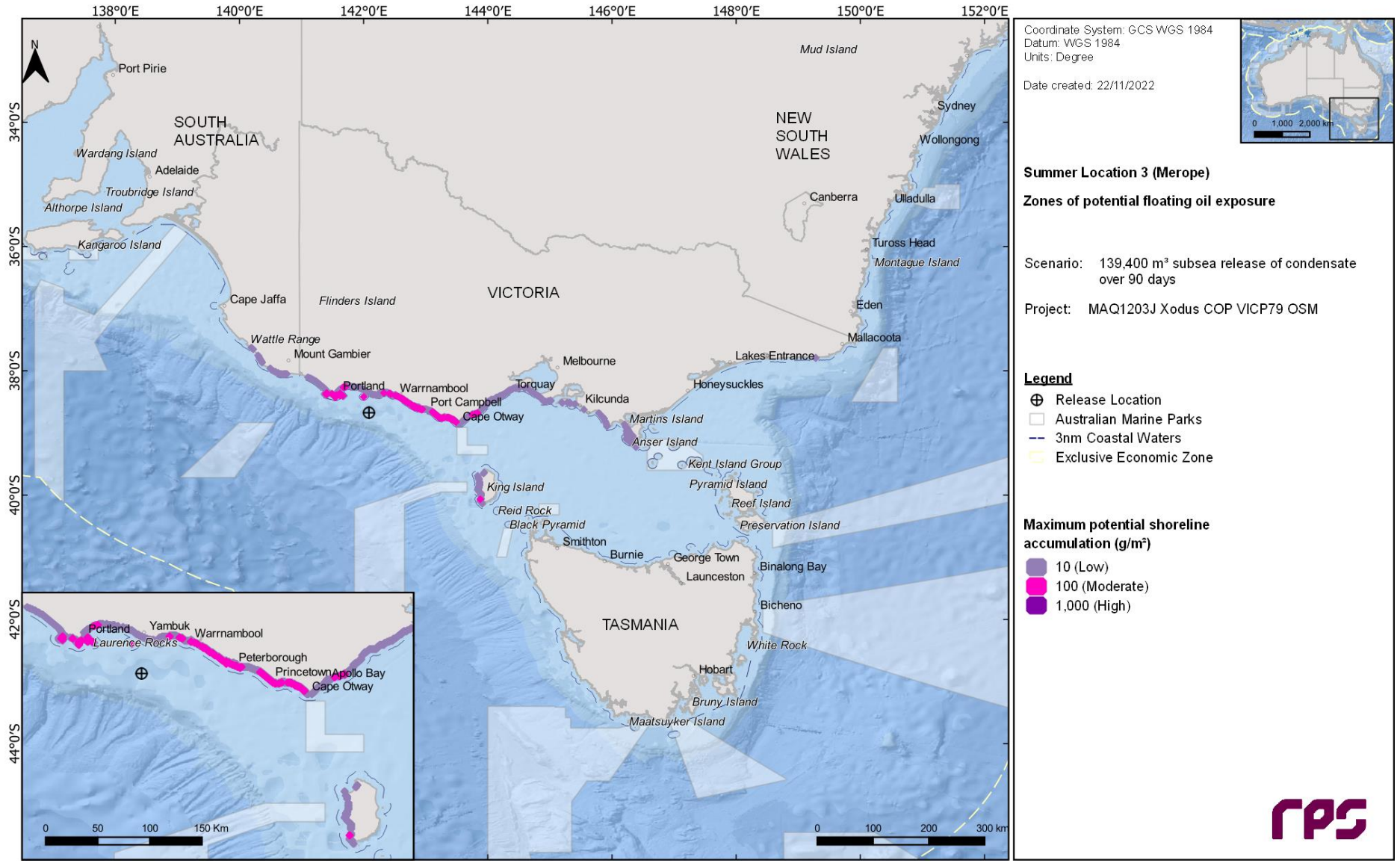


Figure 15.4 Maximum potential shoreline loading from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

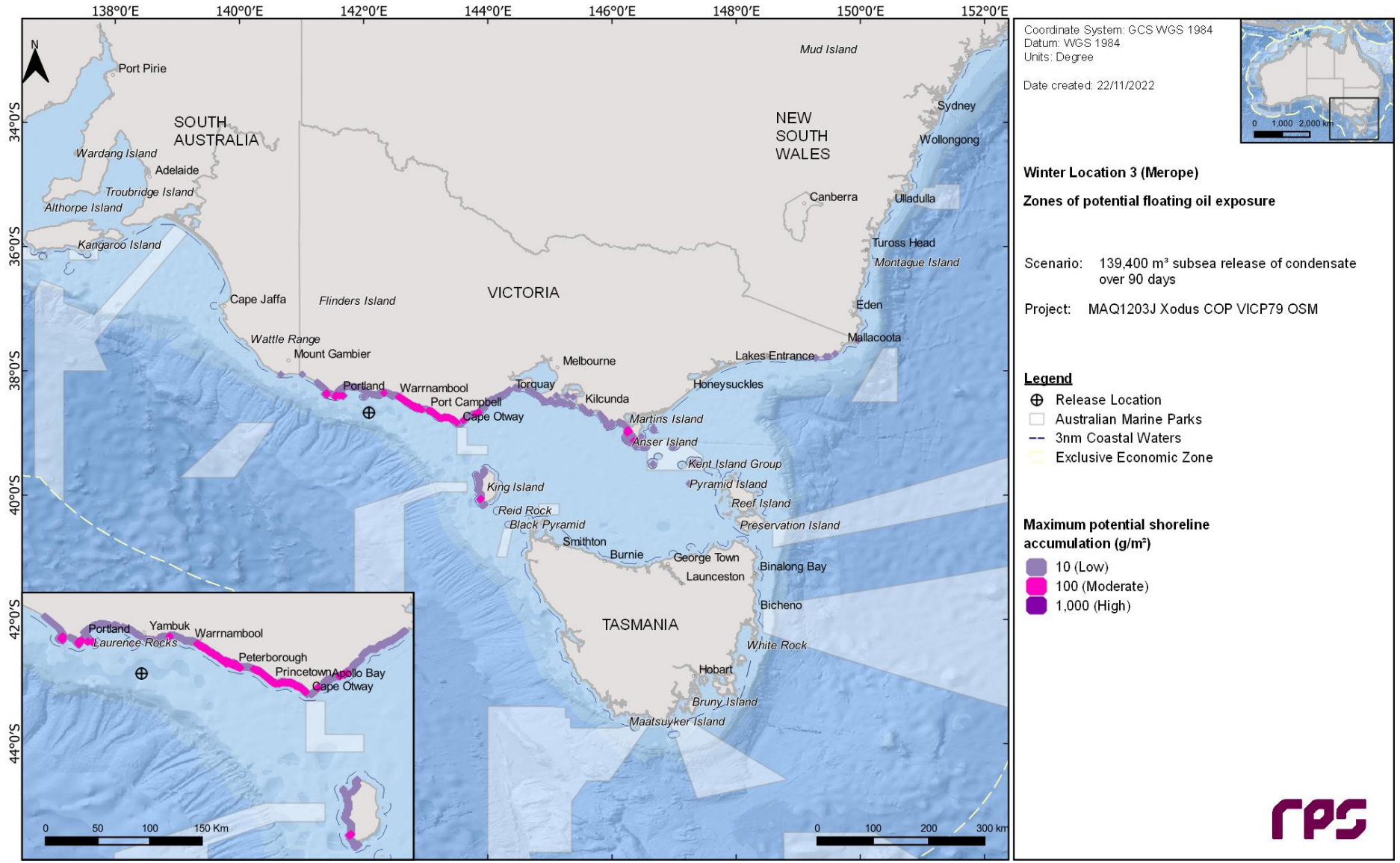


Figure 15.5 Maximum potential shoreline loading from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.2.3 In-water exposure

15.2.3.1 Dissolved Hydrocarbons

Table 15.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 15.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 15.6 and Figure 15.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 15.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	804	427	319
	Maximum distance (km) from release location (99th percentile)	431	358	204
	Direction	ENE	E	E
Winter	Maximum distance (km) from release location	731	451	295
	Maximum distance (km) from release location (99th percentile)	516	339	188
	Direction	ENE	E	WNW

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Table 15.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	1,759	86	70	10	3,182	99	97	32
	Beagle	173	8	3	-	155	29	7	-
	Boags	6	-	-	-	16	1	-	-
	Franklin	215	7	2	-	68	6	1	-
	Murray	19	1	-	-	15	1	-	-
	Nelson	348	7	3	-	315	4	1	-
	Zeehan	1,160	66	26	1	1,082	51	24	3
IBRA	Bateman	2	-	-	-	13	1	-	-
	Bridgewater	1,559	59	37	4	862	29	16	4
	East Gippsland Lowlands	13	1	-	-	15	1	-	-
	Flinders	24	2	-	-	46	7	-	-
	Gippsland Plain	115	6	2	-	326	31	5	-
	Glenelg Plain	1,157	69	54	5	950	37	22	4
	King Island	210	16	4	-	161	31	5	-
	Otway Plain	1,043	85	67	10	1,709	100	98	22
	Otway Ranges	1,191	88	69	11	1,693	100	98	16
	Strzelecki Ranges	104	5	2	-	131	28	4	-
	Warrnambool Plain	2,215	94	78	18	2,607	100	98	19
	Wilsons Promontory	242	7	3	-	234	37	9	-
IMCRA	Batemans Shelf	8	-	-	-	18	1	-	-
	Boags	9	-	-	-	23	2	-	-
	Central Bass Strait	2,546	76	50	6	3,188	98	94	26
	Central Victoria	1,404	81	60	9	2,326	99	96	28
	Coorong	116	9	2	-	136	3	2	-
	Flinders	267	8	4	-	320	39	12	-
	Franklin	158	7	2	-	107	5	1	-
	Otway	6,757	100	100	100	6,771	100	100	100
	Twofold Shelf	58	4	1	-	166	15	2	-
	Victorian Embayments	72	3	1	-	86	10	1	-
	Victorian Embayments	7	-	-	-	115	5	2	-
KEF	Bonney Coast Upwelling	5,512	98	90	69	3,254	93	88	60

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	Upwelling East of Eden	16	1	-	-	49	4	-	-
	West Tasmania Canyons	2,389	92	74	9	2,359	74	56	12
MNP	Bunurong	126	5	2	-	128	21	4	-
	Cape Howe	8	-	-	-	14	1	-	-
	Churchill Island	13	1	-	-	21	3	-	-
	Corner Inlet	1	-	-	-	36	3	-	-
	Discovery Bay	1,607	57	34	4	477	26	16	1
	Ninety Mile Beach	5	-	-	-	14	1	-	-
	Point Addis	132	8	3	-	469	20	6	1
	Point Hicks	10	1	-	-	21	3	-	-
	Port Phillip Heads	24	3	-	-	54	5	1	-
	Twelve Apostles	1,853	93	79	19	1,813	100	100	25
	Wilsons Promontory	216	7	2	-	241	33	9	-
MP	Batemans	2	-	-	-	13	1	-	-
	Lower South East	79	17	2	-	85	3	1	-
MS	Marengo Reefs	411	47	21	1	291	96	56	-
	Merri	201	59	20	-	174	39	15	-
	Mushroom Reef	37	2	-	-	78	7	1	-
	The Arches	807	86	56	4	925	99	74	3
NP	Kent Group	17	1	-	-	5	-	-	-
NPS4	Bunurong Marine Park	77	2	1	-	239	15	3	-
	Corner Inlet Marine and Coastal Park	8	-	-	-	111	4	2	-
	Nooramunga Marine and Coastal Park	4	-	-	-	115	5	1	-
	Shallow Inlet Marine and Coastal Park	4	-	-	-	75	4	1	-
	Wilsons Promontory Marine Park	146	5	2	-	116	12	2	-
	Wilsons Promontory Marine Reserve	45	4	-	-	111	30	6	-
Ramsar	Corner Inlet	8	-	-	-	115	5	2	-
	Glenelg Estuary and Discovery Bay Wetlands	157	22	2	-	26	4	-	-
	Lavinia	28	3	-	-	24	2	-	-
	Piccaninnie Ponds Karst Wetlands	22	1	-	-	4	-	-	-
	Port Phillip Bay (Western	24	2	-	-	34	2	-	-

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	Shoreline) and Bellarine Peninsula								
	Western Port	35	2	-	-	25	3	-	-
RSB	Bell Reef	47	7	-	-	70	8	1	-
	Bravenes Rock	1,171	89	75	7	1,497	100	98	20
	Brown Rocks	2	-	-	-	15	1	-	-
	Cody Bank	178	8	4	-	202	37	12	-
	Cutter Rock	17	3	-	-	34	11	-	-
	New Zealand Star Bank	7	-	-	-	26	2	-	-
Nearshore Waters	Albatross Island	8	-	-	-	17	1	-	-
	Anser Island	88	6	2	-	172	30	8	-
	Bass Coast	111	3	1	-	326	18	3	-
	Bega Valley	6	-	-	-	15	1	-	-
	Black Pyramid	102	4	2	-	30	4	-	-
	Circular Head	12	1	-	-	31	1	-	-
	Colac Otway	1,073	85	67	10	1,709	100	98	22
	Corangamite	2,215	93	78	18	1,966	100	98	19
	Curtis Island	14	1	-	-	23	4	-	-
	East Gippsland	13	1	-	-	13	1	-	-
	French Island	27	2	-	-	14	1	-	-
	Glenelg	1,695	69	52	5	950	37	22	4
	Glennie Group	50	7	-	-	190	37	7	-
	Grant	138	6	1	-	60	3	1	-
	Greater Geelong	52	3	1	-	62	6	1	-
	Hogan Island Group	24	2	0	-	46	7	-	-
	Hunter Island	2	-	-	-	38	1	-	-
	Kanowna Island	88	6	2	-	234	33	8	-
	Kent Island Group	17	1	-	-	5	-	-	-
	King Island	207	16	4	-	161	31	5	-
	Lady Julia Percy Island	1,337	76	61	8	996	61	33	4
	Laurence Rocks	999	69	56	7	621	28	15	1
	Martins Island	1	-	-	-	31	4	-	-
	Moncoeur Islands	153	6	3	-	123	30	3	-
	Montague Island	-	-	-	-	13	1	-	-
	Mornington Peninsula	75	4	1	-	273	17	3	-
	Moyne	1,662	94	78	18	2,607	100	84	19
	Mud Island	12	1	-	-	23	2	-	-
	Norman Island	98	4	2	-	224	22	2	-
	Phillip Island	88	6	1	-	150	17	2	-
	Reid Rock	43	10	-	-	24	7	-	-
	Rodondo Island	242	6	3	-	199	30	7	-

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	Seal Islands	90	3	1	-	41	8	-	-
	Shellback Island	146	5	2	-	116	14	3	-
	Skull Rock	121	7	1	-	234	32	9	-
	South Gippsland	115	5	2	-	188	31	7	-
	Surf Coast	250	10	4	-	217	31	6	-
	Three Hummock Island	1	-	-	-	20	1	-	-
	Warrnambool	532	68	33	2	549	66	36	3
	Wattle Range	11	1	-	-	2	-	-	-
	Wellington	9	-	-	-	115	5	1	-
State Waters	New South Wales	8	-	-	-	15	1	-	-
	South Australia	220	18	2	-	137	3	3	-
	Tasmania	369	21	7	-	265	38	13	-
	Victoria	2,675	96	91	35	3,011	100	100	33

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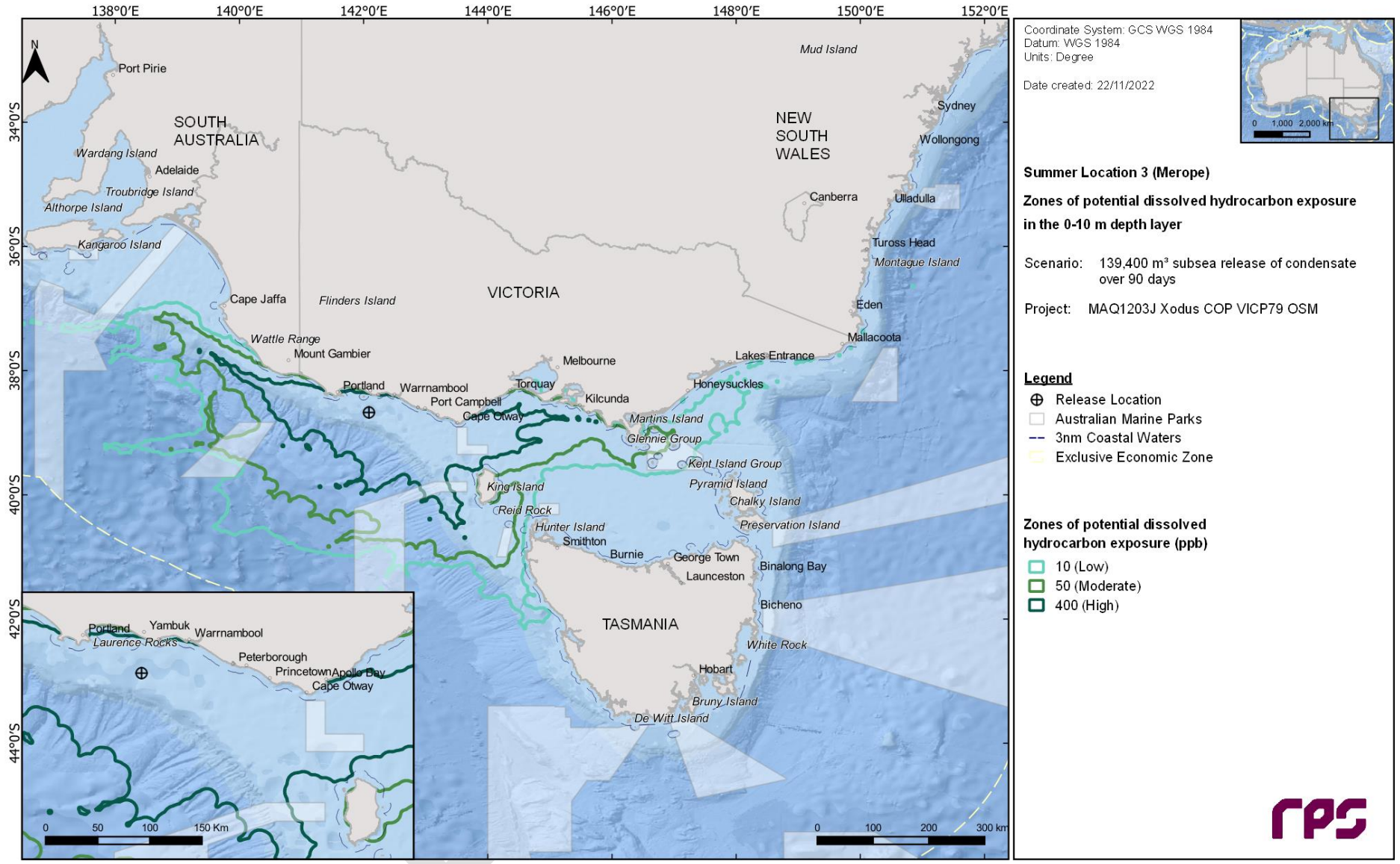


Figure 15.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

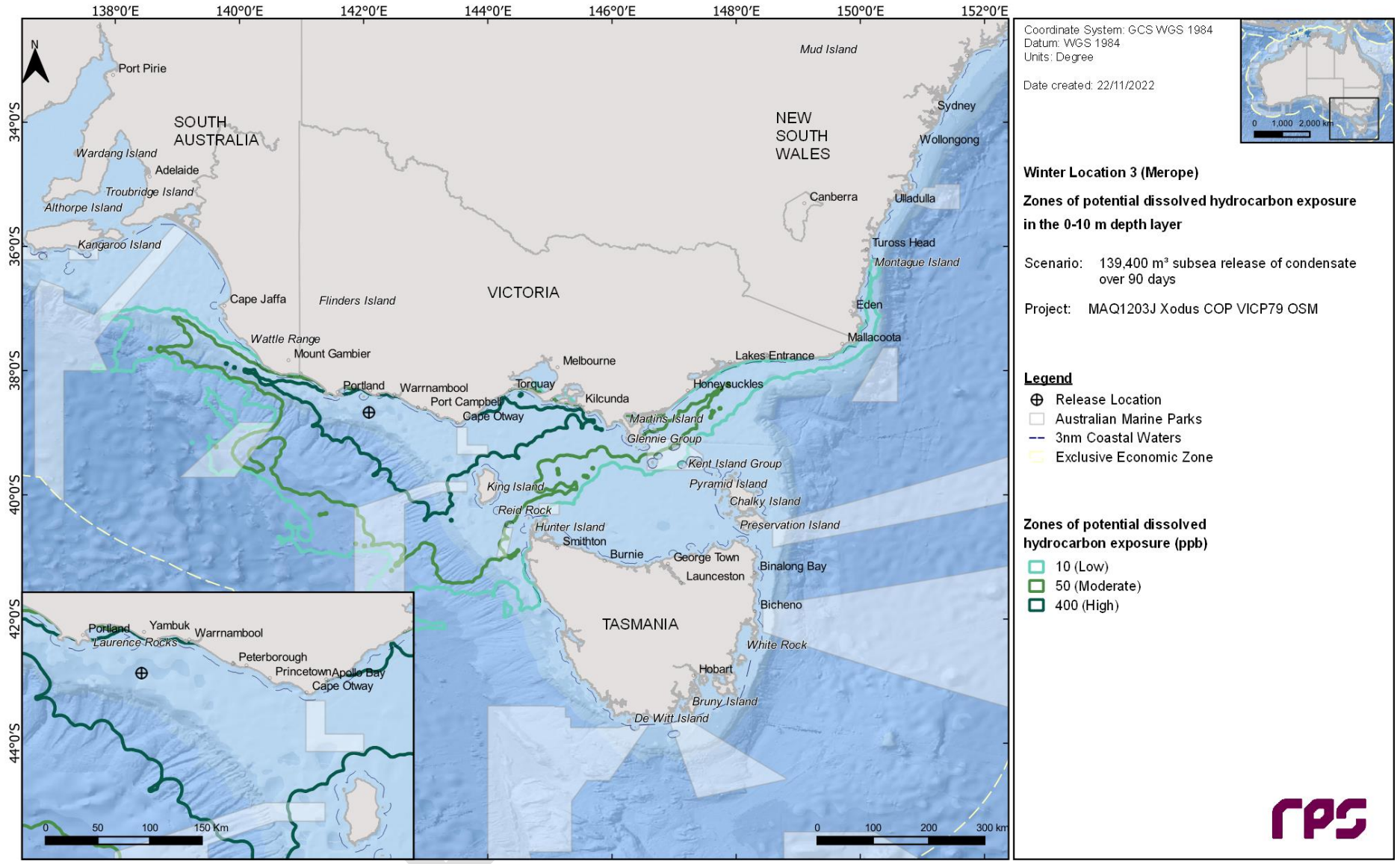


Figure 15.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.2.3.2 Entrained Hydrocarbons

Table 15.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

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Table 15.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 15.8 and Figure 15.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 15.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	897	409
	Maximum distance (km) from release location (99^{th} percentile)	819	348
	Direction	ENE	E
Winter	Maximum distance (km) from release location	831	450
	Maximum distance (km) from release location (99^{th} percentile)	792	370
	Direction	ENE	E

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Table 15.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	878	95	79	952	100	98
	Beagle	117	32	5	192	81	14
	Boags	33	16	-	29	25	-
	East Gippsland	22	5	-	27	20	-
	Flinders	4	-	-	11	1	-
	Franklin	114	30	2	122	27	1
	Murray	63	20	-	42	3	-
	Nelson	98	28	-	123	6	3
	Zeehan	483	83	26	531	83	30
IBRA	Bateman	23	2	-	41	13	-
	Bridgewater	654	73	50	659	48	27
	East Gippsland Lowlands	28	12	-	38	55	-
	Flinders	65	24	-	131	70	8
	Gippsland Plain	144	45	5	262	92	17
	Glenelg Plain	1,010	83	70	978	54	32
	King Island	242	57	5	212	74	14
	Otway Plain	1,217	96	80	1,152	100	100
	Otway Ranges	883	96	83	832	100	100
	South East Coastal Ranges	14	2	-	17	13	-
	Strzelecki Ranges	81	37	-	147	92	7
	Tasmanian West	20	15	-	18	5	-
	Warrnambool Plain	1,834	100	96	2,129	100	100
	Wilsons Promontory	375	43	8	307	92	34
IMCRA	Batemans Shelf	61	4	-	80	25	-
	Boags	31	17	-	29	24	-
	Central Bass Strait	826	92	57	931	100	96
	Central Victoria	851	94	70	908	100	98
	Coorong	111	25	2	72	3	-
	Davey	19	3	-	5	-	-
	Flinders	375	43	8	330	92	35
	Franklin	84	34	-	83	20	-
	Otway	12,776	100	100	13,550	100	100
	Twofold Shelf	96	26	-	163	75	8
	Victorian Embayments	80	37	-	238	72	4
KEF	Big Horseshoe Canyon	25	8	-	17	19	-
	Bonney Coast Upwelling	2,024	100	97	1,960	97	92
	Canyons on the eastern continental slope	34	4	-	33	14	-

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	Shelf rocky reefs	32	4	-	47	14	-
	Upwelling East of Eden	65	17	-	84	67	-
	West Tasmania Canyons	789	96	54	898	91	62
MNP	Bunurong	46	37	-	105	88	1
	Cape Howe	23	15	-	46	53	-
	Churchill Island	52	28	-	49	57	-
	Corner Inlet	5	0	-	18	3	-
	Discovery Bay	402	71	40	415	38	24
	French Island	8	-	-	22	7	-
	Ninety Mile Beach	6	-	-	11	1	-
	Point Addis	116	52	3	167	76	5
	Point Hicks	28	13	-	40	58	-
	Port Phillip Heads	67	35	-	77	66	-
	Twelve Apostles	1,834	97	93	1,397	100	100
	Wilsons Promontory	375	42	8	299	92	35
	Yaringa	5	-	-	12	1	-
MP	Batemans	27	2	-	49	14	-
	Lower South East	207	62	10	97	7	-
	Upper South East	21	5	-	19	3	-
MS	Beware Reef	26	6	-	25	14	-
	Marengo Reefs	261	90	25	230	100	53
	Merri	657	96	60	356	66	31
	Mushroom Reef	50	36	-	201	70	3
	The Arches	731	97	84	1,307	100	81
NP	Kent Group	39	9	-	57	25	-
NPS4	Bunurong Marine Park	50	34	-	80	83	-
	Corner Inlet Marine and Coastal Park	41	24	-	74	60	-
	Nooramunga Marine and Coastal Park	7	-	-	18	3	-
	Shallow Inlet Marine and Coastal Park	44	24	-	49	57	-
	Wilsons Promontory Marine Park	174	38	5	289	92	23
	Wilsons Promontory Marine Reserve	353	42	8	303	92	32
Ramsar	Corner Inlet	41	24	-	74	60	-
	Glenelg Estuary and Discovery Bay Wetlands	212	62	21	220	18	4
	Lavinia	32	6	-	26	25	-
	Piccaninnie Ponds Karst Wetlands	83	44	-	40	5	-
	Port Phillip Bay (Western Shoreline`) and Bellarine Peninsula	73	26	-	84	47	-
	Western Port	46	28	-	143	55	3
RSB	Bell Reef	47	39	-	61	39	-
	Beware Reef	26	6	-	25	14	-
	Bravenes Rock	464	96	88	651	100	100

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	Brown Rocks	11	1	-	9	-	-
	Cody Bank	78	45	-	111	94	3
	Cutter Rock	51	27	-	82	72	-
	New Zealand Star Bank	34	16	-	47	65	-
	Wakitipu Rock	5	-	-	12	1	-
	Wright Rock	4	-	-	10	1	-
Nearshore Waters	Albatross Island	33	17	-	30	8	-
	Anser Island	249	41	7	269	91	33
	Bass Coast	55	35	-	94	85	-
	Bega Valley	15	8	-	36	31	-
	Black Pyramid	93	25	-	84	24	-
	Circular Head	16	14	-	16	5	-
	Colac Otway	1,217	96	83	1,152	100	100
	Corangamite	1,834	98	96	1,554	100	100
	Curtis Island	65	21	-	65	56	-
	East Gippsland	28	12	-	38	55	-
	Eurobodalla	17	2	-	23	12	-
	Frankston	7	-	-	15	3	-
	French Island	29	24	-	114	45	3
	Gabo Island	21	10	-	37	50	-
	Glenelg	1,010	83	70	978	54	32
	Glennie Group	375	43	8	303	92	34
	Grant	164	55	14	81	5	-
	Greater Geelong	90	31	-	101	67	1
	Hogan Island Group	59	24	-	131	70	8
	Hunter Island	19	6	-	11	1	-
	Huon Valley	10	1	-	5	-	-
	Kanowna Island	249	41	5	269	90	33
	Kent Island Group	36	11	-	93	30	-
	King Island	242	57	5	212	74	15
	Kingston	9	-	-	11	1	-
	Lady Julia Percy Island	1,314	91	74	1,290	71	58
	Laurence Rocks	722	81	65	806	65	27
	Maatsuyker Island	11	1	-	3	-	-
	Moncoeur Islands	120	30	5	209	80	17
	Montague Island	23	2	-	41	13	-
	Mornington Peninsula	120	45	3	227	74	5
	Moyne	1,448	100	96	2,129	98	88
	Mud Island	44	23	-	35	51	-
	Norman Island	231	38	5	302	92	31
	Phillip Island	62	40	-	204	79	4
	Pyramid Island	9	0	-	18	8	-
	Reid Rock	59	46	-	59	44	-
	Robe	21	5	-	19	3	-
	Rodondo Island	107	32	3	204	85	15
	Seal Islands	53	25	-	64	74	-
	Shellback Island	129	38	5	257	92	18

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	Skull Rock	252	41	6	245	90	33
	South Gippsland	252	39	5	307	92	30
	Surf Coast	167	62	2	169	78	4
	Three Hummock Island	19	3	0	11	1	-
	Warrnambool	760	99	67	1,016	71	58
	Wattle Range	90	22	-	16	3	-
	Wellington	10	2	-	20	4	-
	West Coast	20	15	-	18	5	-
State Waters	New South Wales	27	13	-	49	46	-
	South Australia	253	62	21	136	7	3
	Tasmania	325	58	8	274	75	28
	Victoria	1,834	100	96	2,146	100	100

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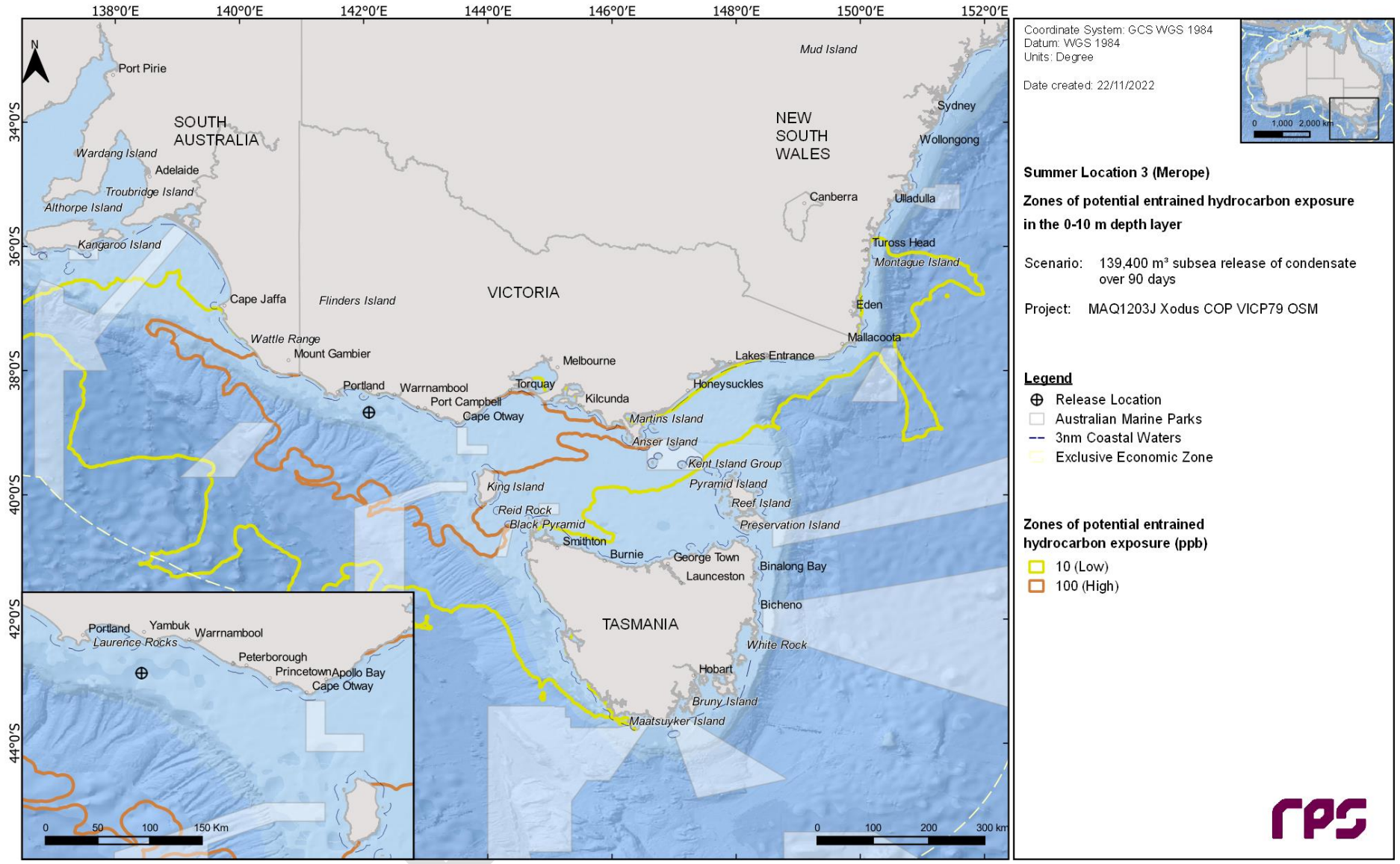


Figure 15.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

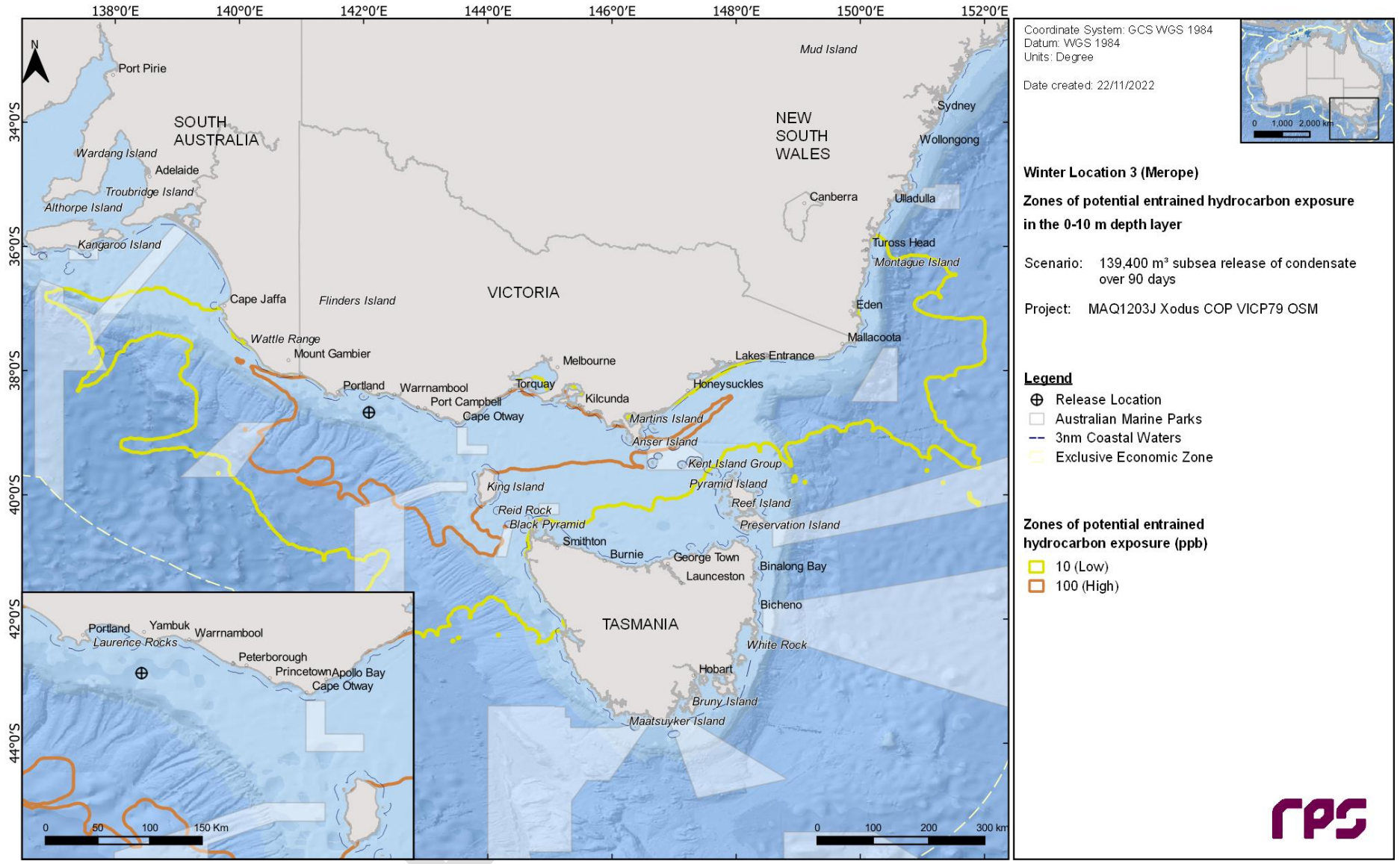


Figure 15.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

15.3 Deterministic Analysis

15.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 8 pm 2nd July 2010.

Figure 15.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 12.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 15.11 and Figure 15.12, respectively.

Figure 15.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 75,390 m^3 (~54%) was lost to the atmosphere through evaporation. Approximately, 62.030 m^3 (~45%) of the released volume decayed, while approximately 1,980 m^3 (~1%) was predicted to remain within the water column and approximately 8 m^3 (<0.01%) was present on the shorelines.

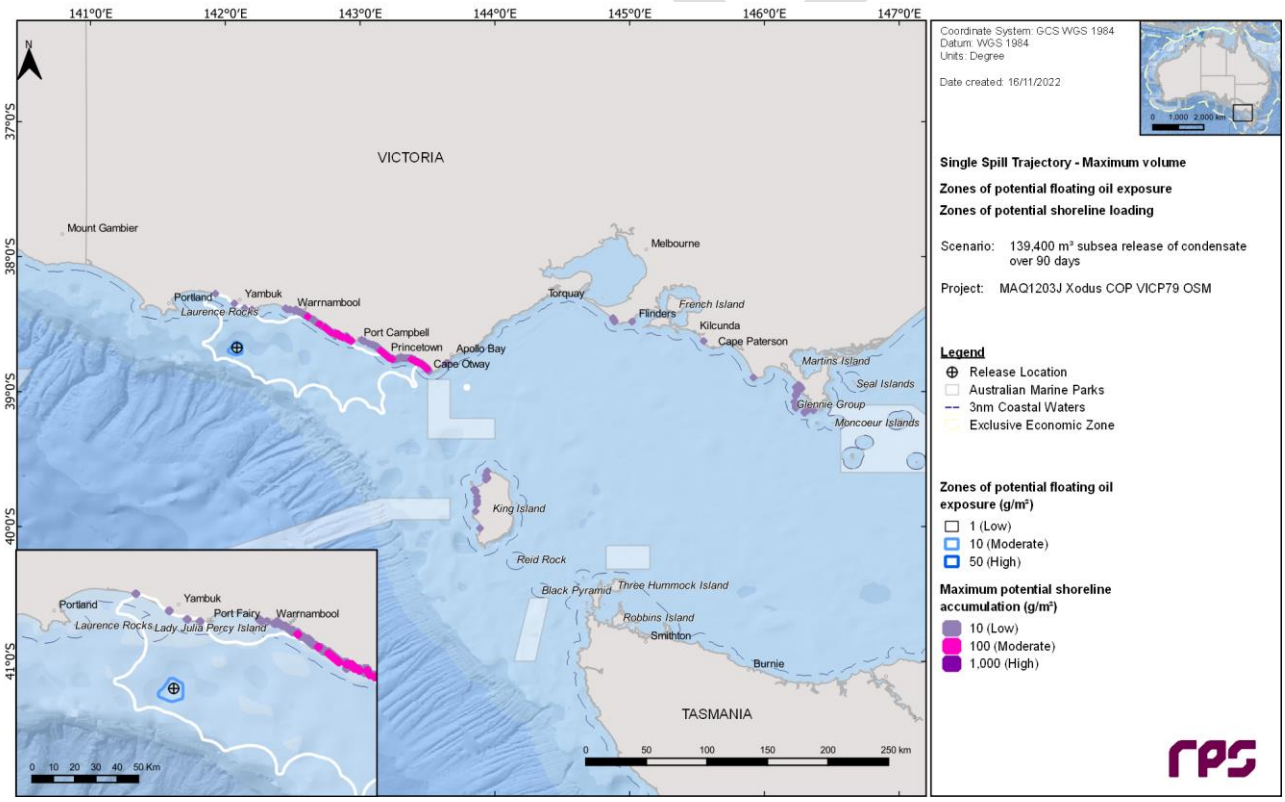


Figure 15.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

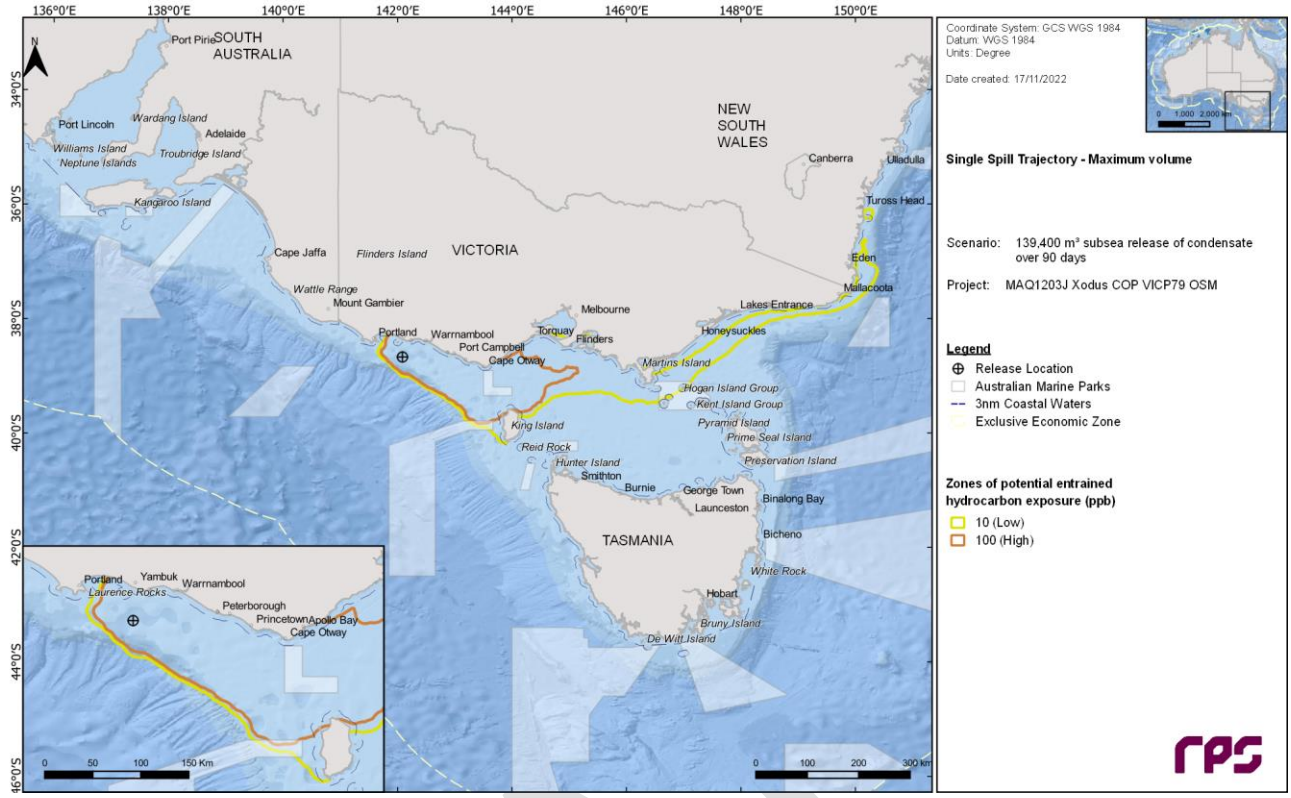


Figure 15.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

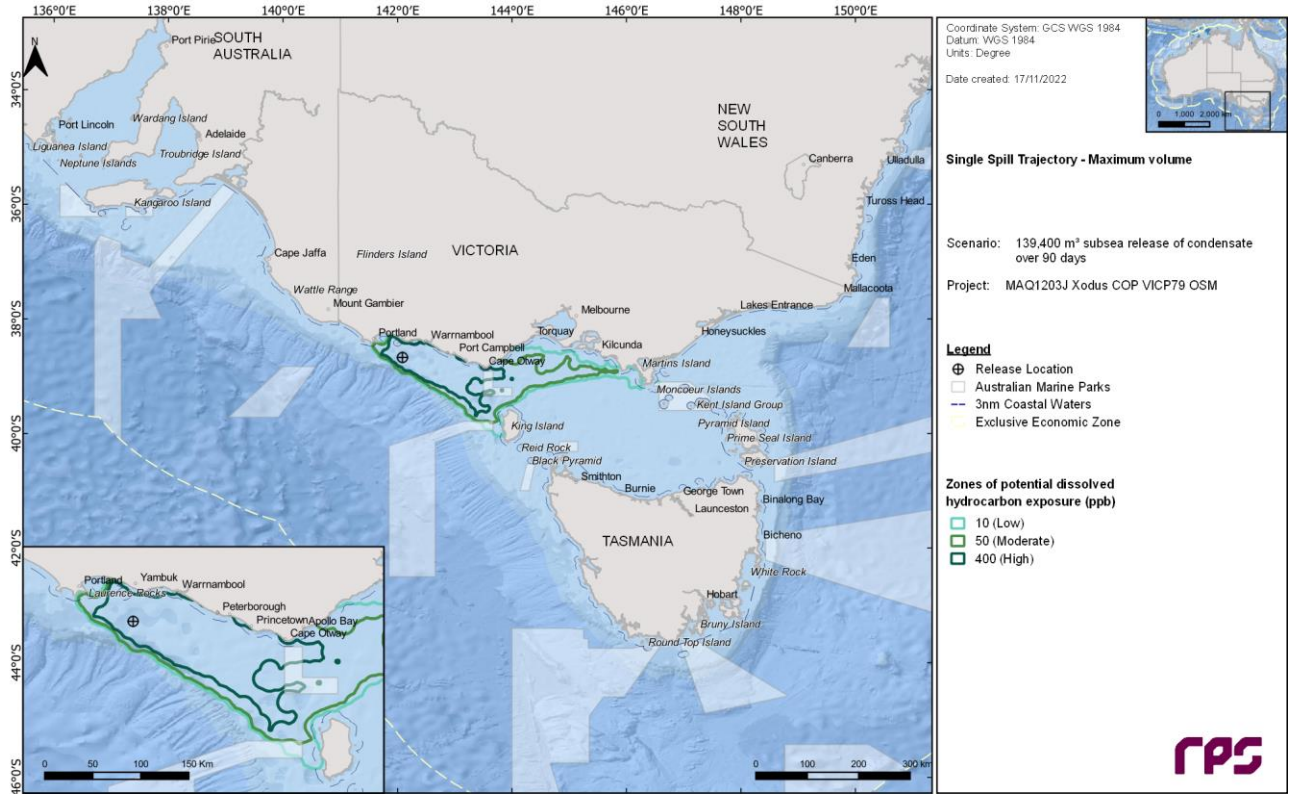


Figure 15.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

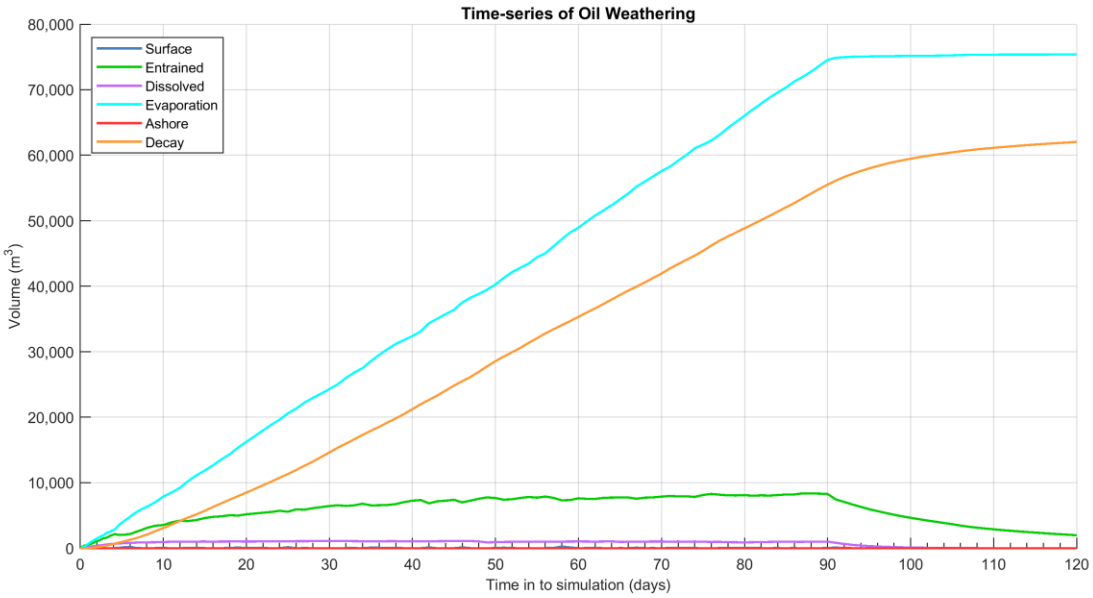


Figure 15.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 3.

15.3.2 Largest Area of Floating Hydrocarbons Exposure

The simulation that resulted in the largest swept area of floating hydrocarbon exposure at or above the low threshold of 1,325 km^2 was identified as run number 34 and commenced during winter conditions, 2 pm 4th June 2013.

Figure 15.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days).

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 120 days is presented in Figure 15.15 and Figure 15.16, respectively.

Figure 15.17 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 73,940 m^3 (~53%) was lost to the atmosphere through evaporation. Approximately, 59,700 m^3 (~43%) of the released volume decayed, while approximately 1,520 m^3 (~1%) was predicted to remain within the water column and approximately 1 m^3 (<0.01%) was present on the shorelines.

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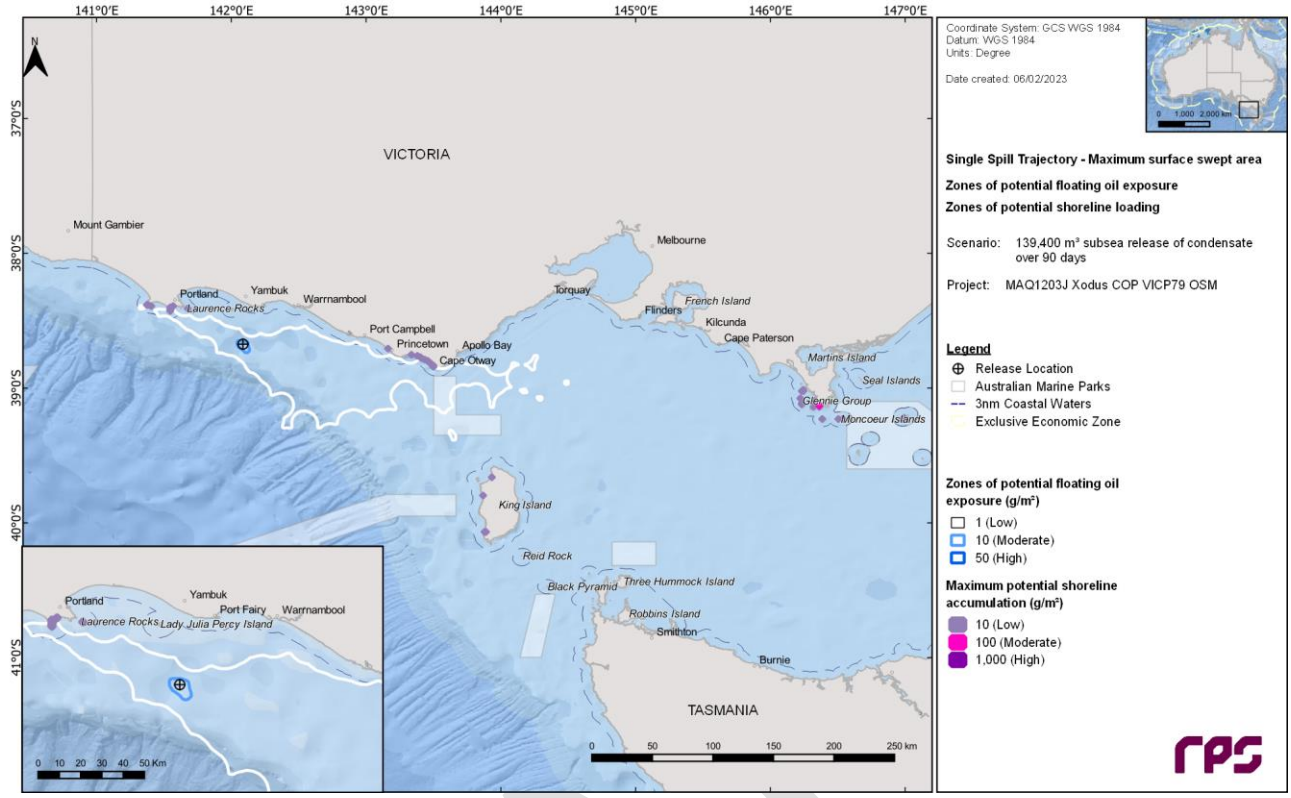


Figure 15.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days of the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

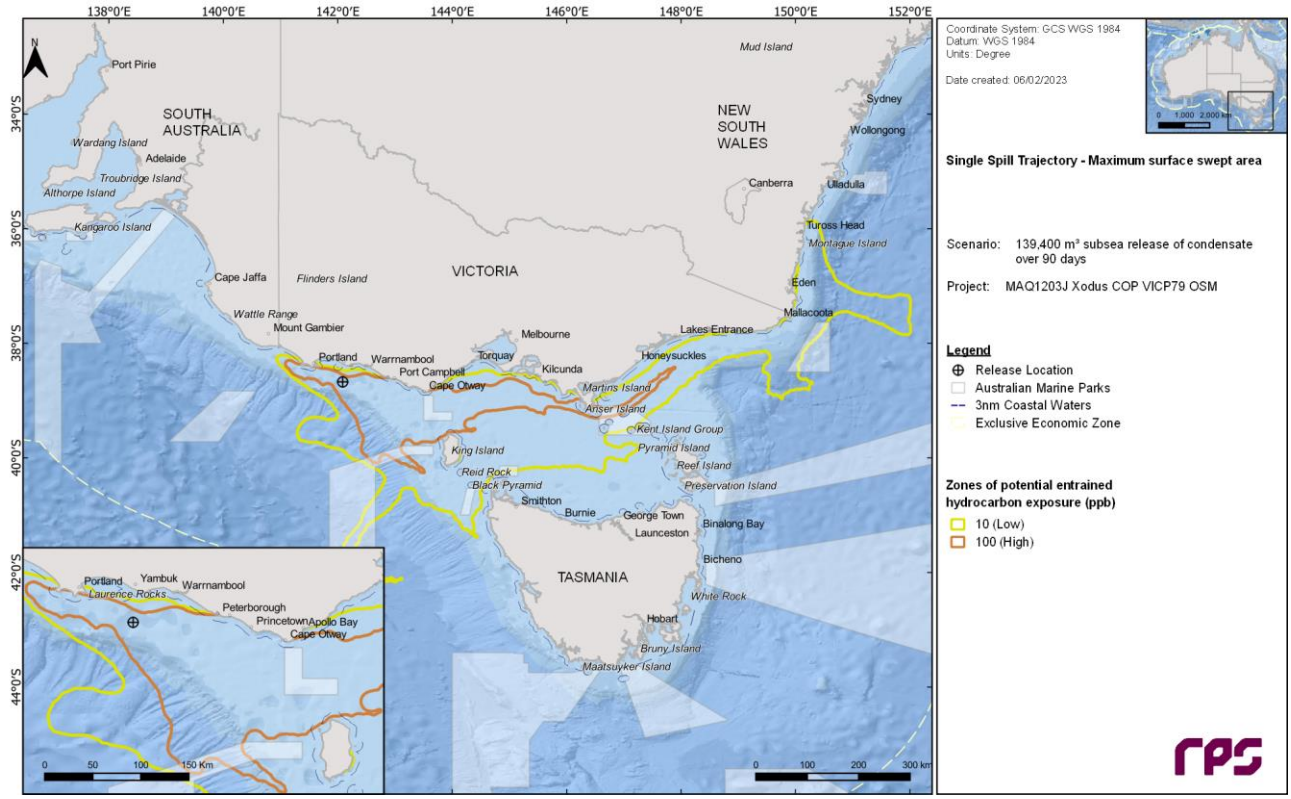


Figure 15.15 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days of the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

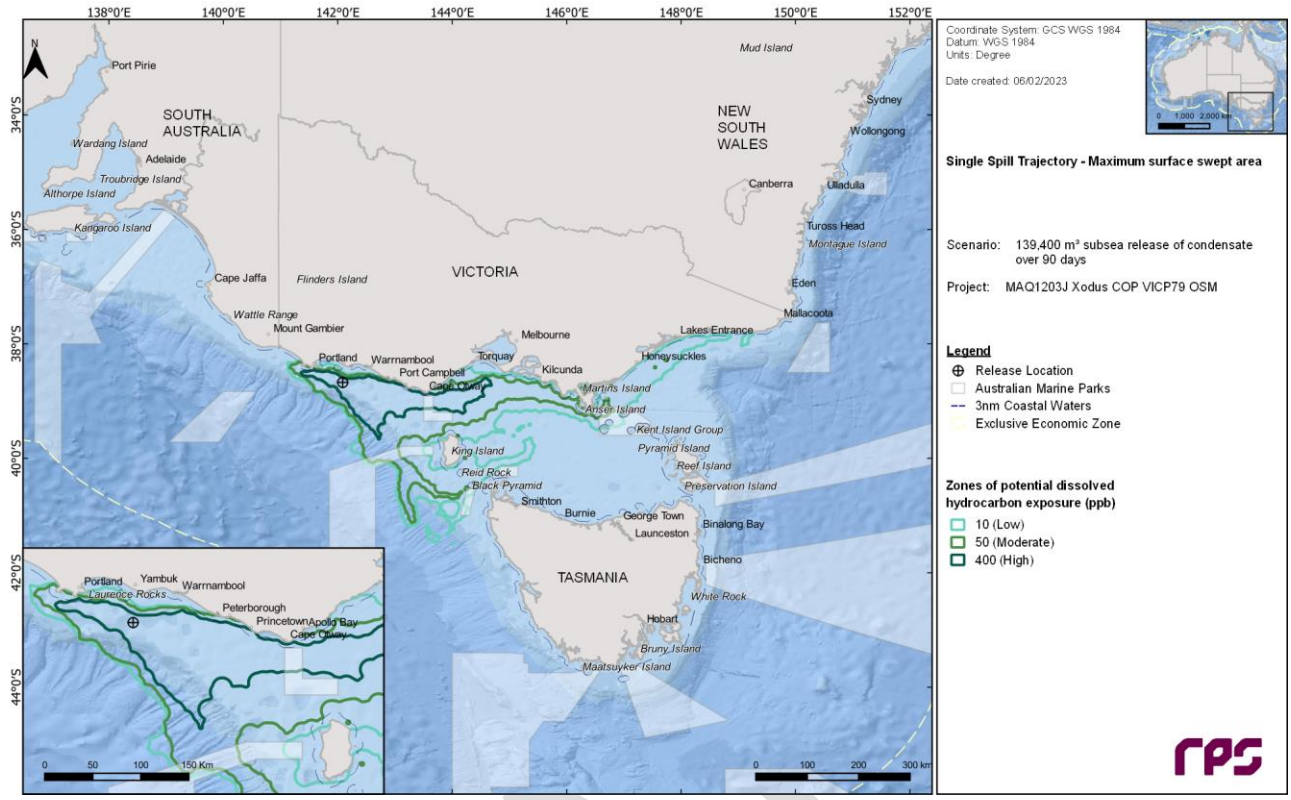


Figure 15.16 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days of the simulation that led to the largest area of floating hydrocarbon exposure from a subsea LOWC at Location 3.

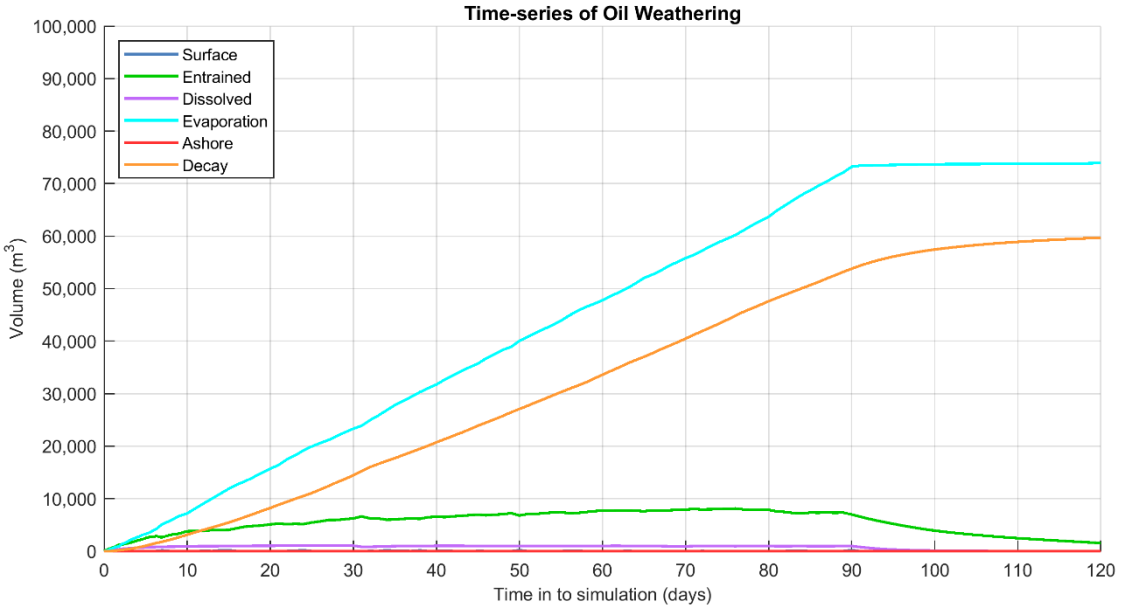


Figure 15.17 Predicted weathering and fates for the simulation that led to the area of floating oil exposure from a subsea LOWC at Location 3.

15.3.3 Longest Length of Shoreline Accumulation

The simulation that resulted in the longest length of hydrocarbons ashore of 231 km was identified as run number 11, which commenced during winter conditions, 6 pm 15th April 2011.

Figure 15.18 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 27 of the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 15.19 and Figure 15.20, respectively.

Figure 15.21 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 74,390 m^3 (~53%) was lost to the atmosphere through evaporation. Approximately, 59,100 m^3 (~42%) of the released volume decayed, while approximately 1,610 m^3 (~1%) was predicted to remain within the water column and approximately 9 m^3 (<0.1%) remained on shorelines.

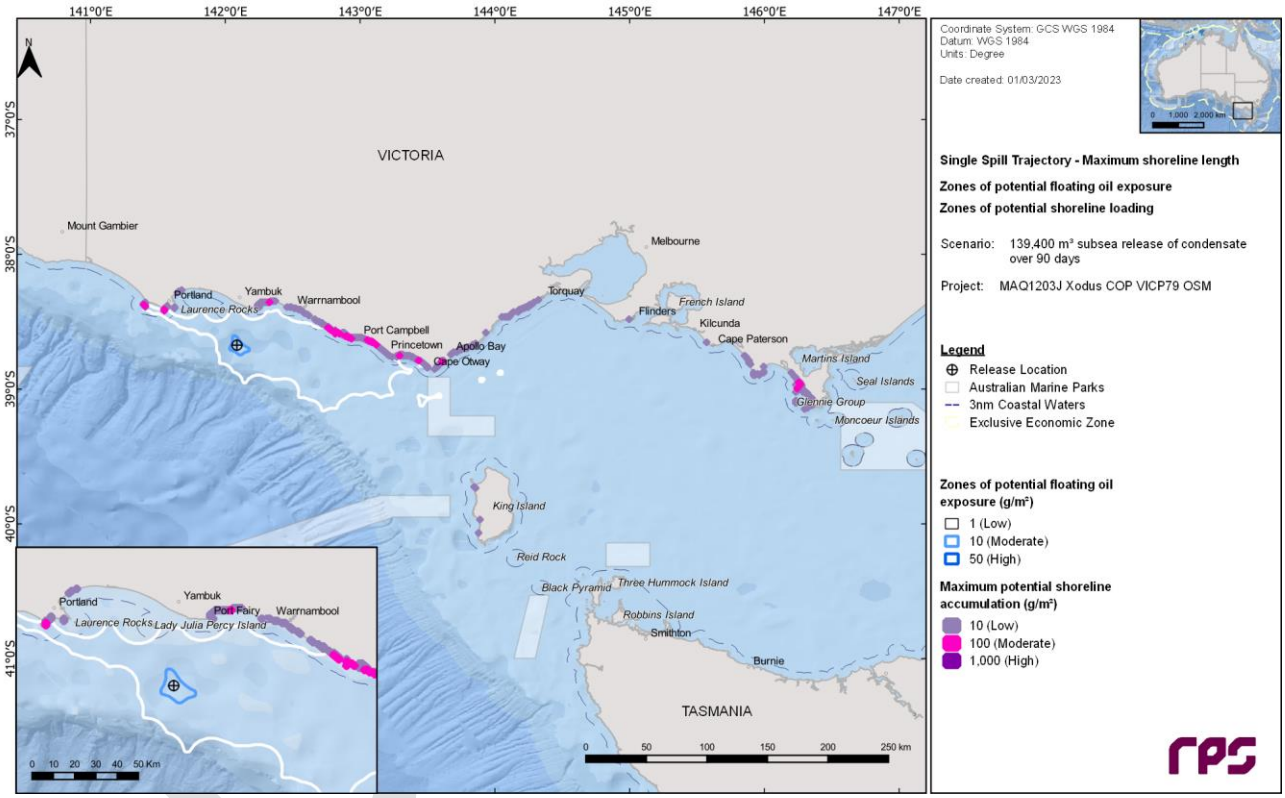


Figure 15.18 Predicted extent of the floating hydrocarbon exposure and shoreline loading over the entire 120 days for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

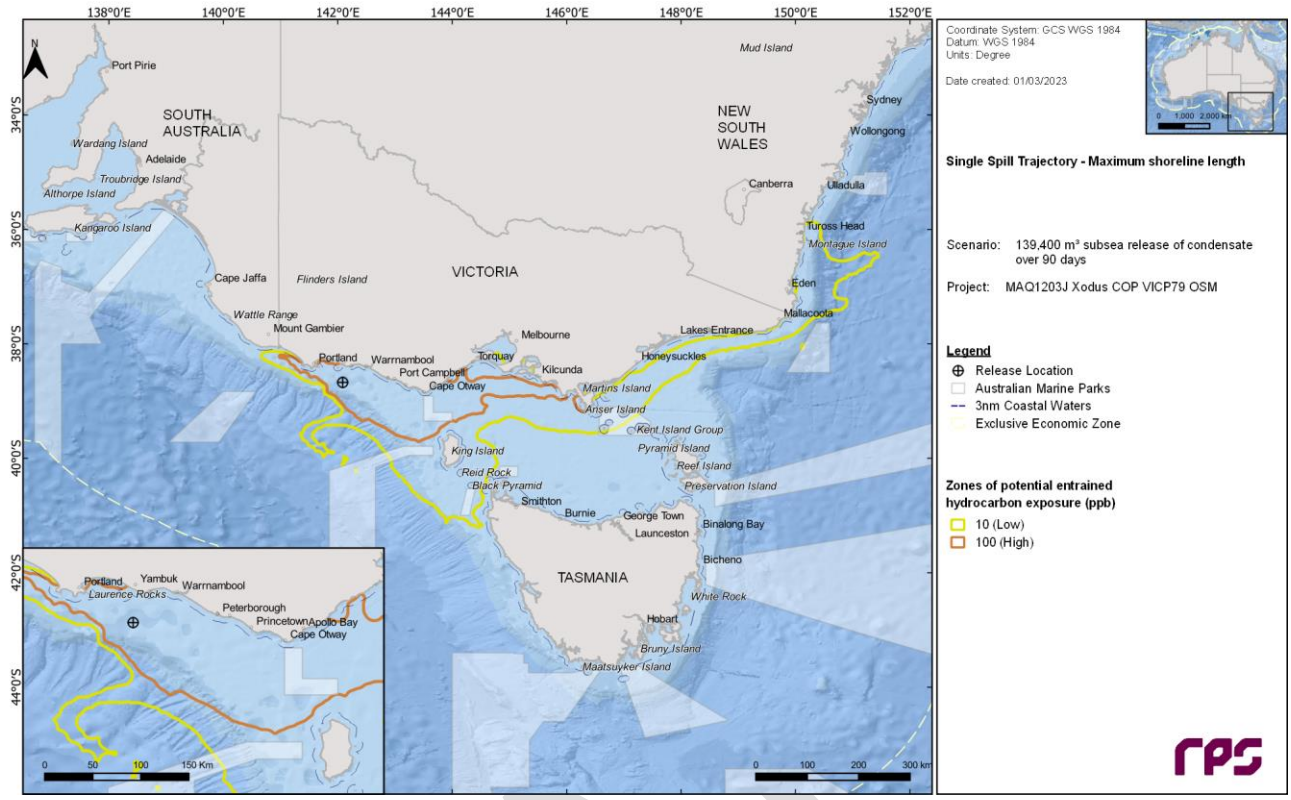


Figure 15.19 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

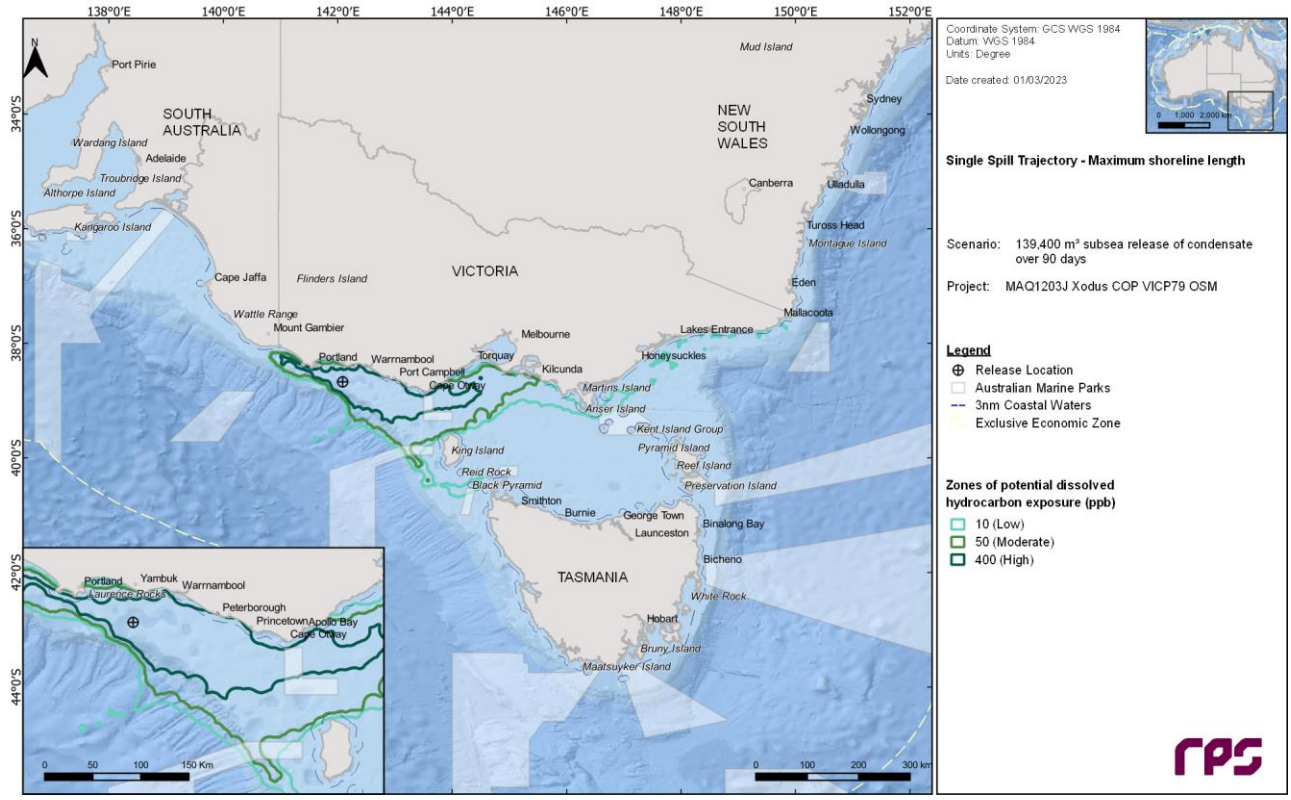


Figure 15.20 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

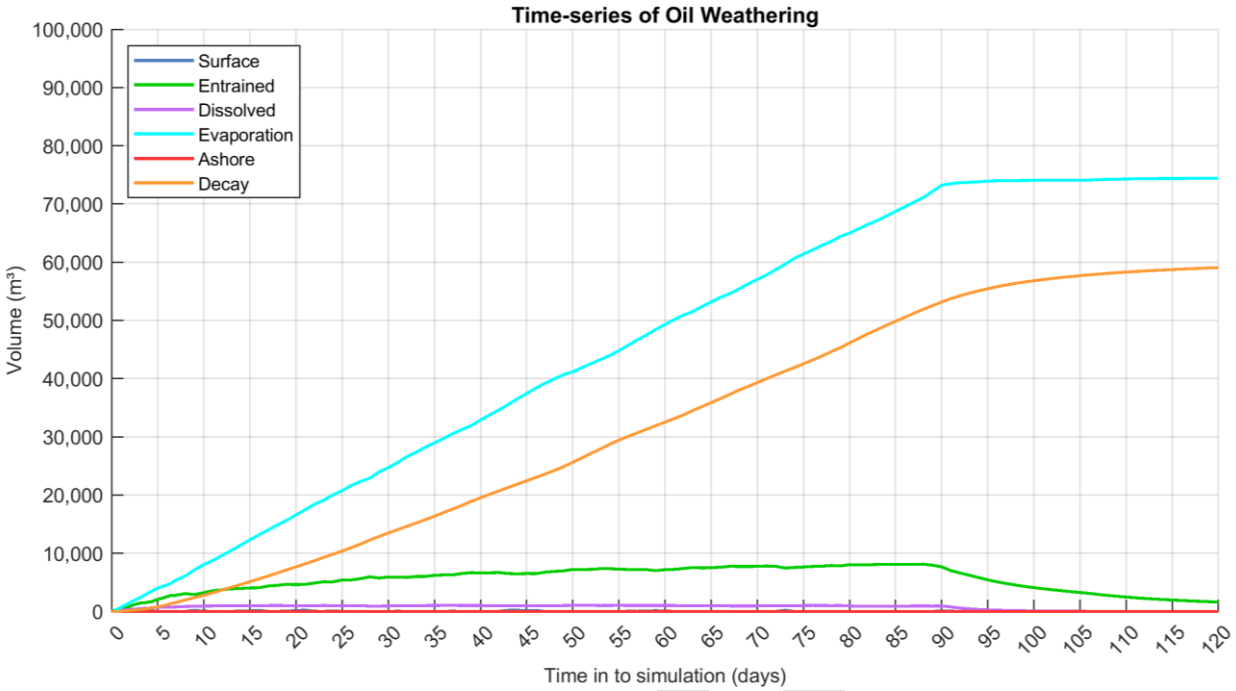


Figure 15.21 Predicted weathering and fates for the simulation that led to the longest length of shoreline accumulation from a subsea LOWC at Location 3.

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16 LOCATION 4 LOWC RESULTS

This scenario examined the potential exposure following a LOWC at Location 4. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 16.1 presents the EMBA, Section 16.2 shows the seasonal (or stochastic) results, while Section 16.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

16.1 EMBA

Figure 16.1 shows the EMBA for Location 4. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

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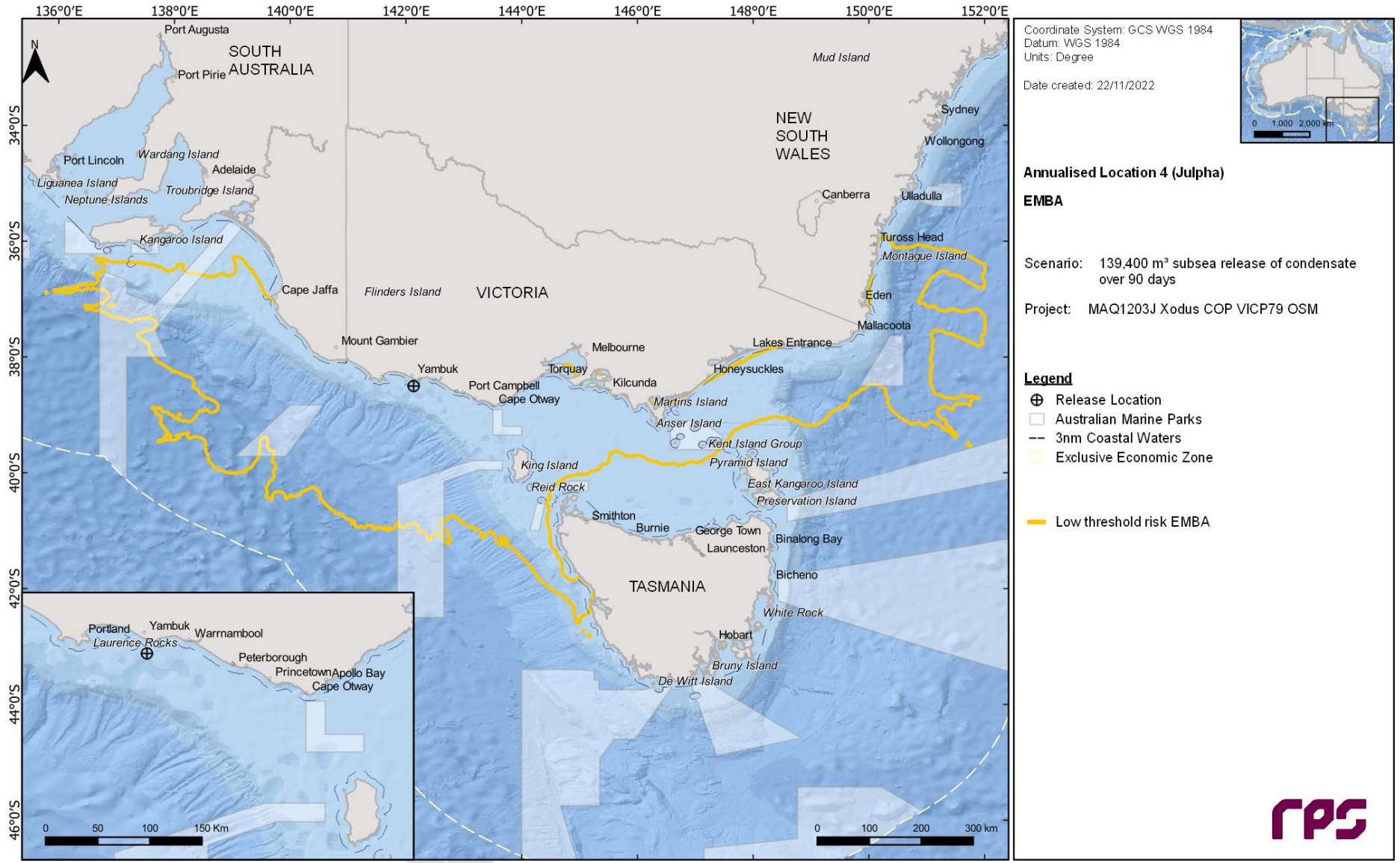


Figure 16.1 Predicted low threshold EMBA from a subsea LOWC at Location 4. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

16.2 Stochastic Analysis

16.2.1 Floating Oil Exposure

Table 16.2 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 16.3 summarises the potential floating oil exposure to individual receptors for each season.

Figure 16.2 to Figure 16.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating hydrocarbon exposure at or above the low exposure threshold of 1,240 km^2 was identified as run number 50 and commenced during winter conditions, 3 pm 10th May 2018. In comparison the largest swept area of floating hydrocarbon at or above the low exposure threshold occurring during summer was 967 km^2.

Table 16.1 Maximum distances and directions travelled by floating oil from a subsea LOWC at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	180.9	11.6	0.2
	Maximum distance (km) from release location (99th percentile)	110.8	11.4	0.2
	Direction	ESE	E	N
Winter	Maximum distance (km) from release location	363.4	12.3	0.2
	Maximum distance (km) from release location (99th percentile)	121.7	11.7	0.2
	Direction	E	W	N

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Table 16.2 Summary of the potential exposure by floating oil to individual receptors from a subsea LOWC at Location 4 for each season. Results were calculated from 100 spill simulations per season.

	Receptor	Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
AMP	Apollo	4	-	-	35.42	-	-	7	-	-	10.67	-	-
IBRA	Bridgewater	26	-	-	7.29	-	-	9	-	-	73.17	-	-
	Gippsland Plain	-	-	-	-	-	-	7	-	-	21.96	-	-
	Glenelg Plain	52	-	-	3.83	-	-	18	-	-	23.46	-	-
	Otway Plain	4	-	-	63.46	-	-	50	-	-	5.29	-	-
	Otway Ranges	3	-	-	20.75	-	-	32	-	-	8.92	-	-
	Warrnambool Plain	93	-	-	1.5	-	-	100	-	-	1.38	-	-
	Wilsons Promontory	-	-	-	-	-	-	6	-	-	22.08	-	-
IMCRA	Central Bass Strait	1	-	-	63.38	-	-	6	-	-	9.46	-	-
	Central Victoria	2	-	-	37.04	-	-	4	-	-	10.67	-	-
	Flinders	-	-	-	-	-	-	11	-	-	21.96	-	-
	Otway	100	100	3	0.04	0.08	1.21	100	100	3	0.04	0.08	10.79
KEF	Bonney Coast Upwelling	100	31	-	0.17	1.29	-	100	47	-	0.17	3.71	-
MNP	Twelve Apostles	23	-	-	2.63	-	-	84	-	-	2.71	-	-
MS	Merri	12	-	-	4.58	-	-	20	-	-	4.88	-	-
	The Arches	5	-	-	20.42	-	-	11	-	-	3.46	-	-
Nearshore Waters	Colac Otway	6	-	-	57.88	-	-	56	-	-	5.29	-	-
	Corangamite	57	-	-	3.67	-	-	96	-	-	2.46	-	-
	Glenelg	55	-	-	3.83	-	-	19	-	-	17.13	-	-
	Lady Julia Percy Island	62	-	-	2.13	-	-	56	-	-	1.46	-	-
	Laurence Rocks	32	-	-	7.25	-	-	15	-	-	24.54	-	-
	Moyne	89	-	-	1.5	-	-	100	-	-	1.46	-	-
	Norman Island	-	-	-	-	-	-	6	-	-	22.08	-	-
	South Gippsland	-	-	-	-	-	-	10	-	-	21.96	-	-
	Warrnambool	63	-	-	3.79	-	-	90	-	-	1.38	-	-

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NPS4	Wilsons Promontory Marine Park	-	-	-	-	-	-	10	-	-	21.96	-	-
State Waters	Victoria	100	1	-	0.71	21.29	-	100	-	-	0.63	-	-

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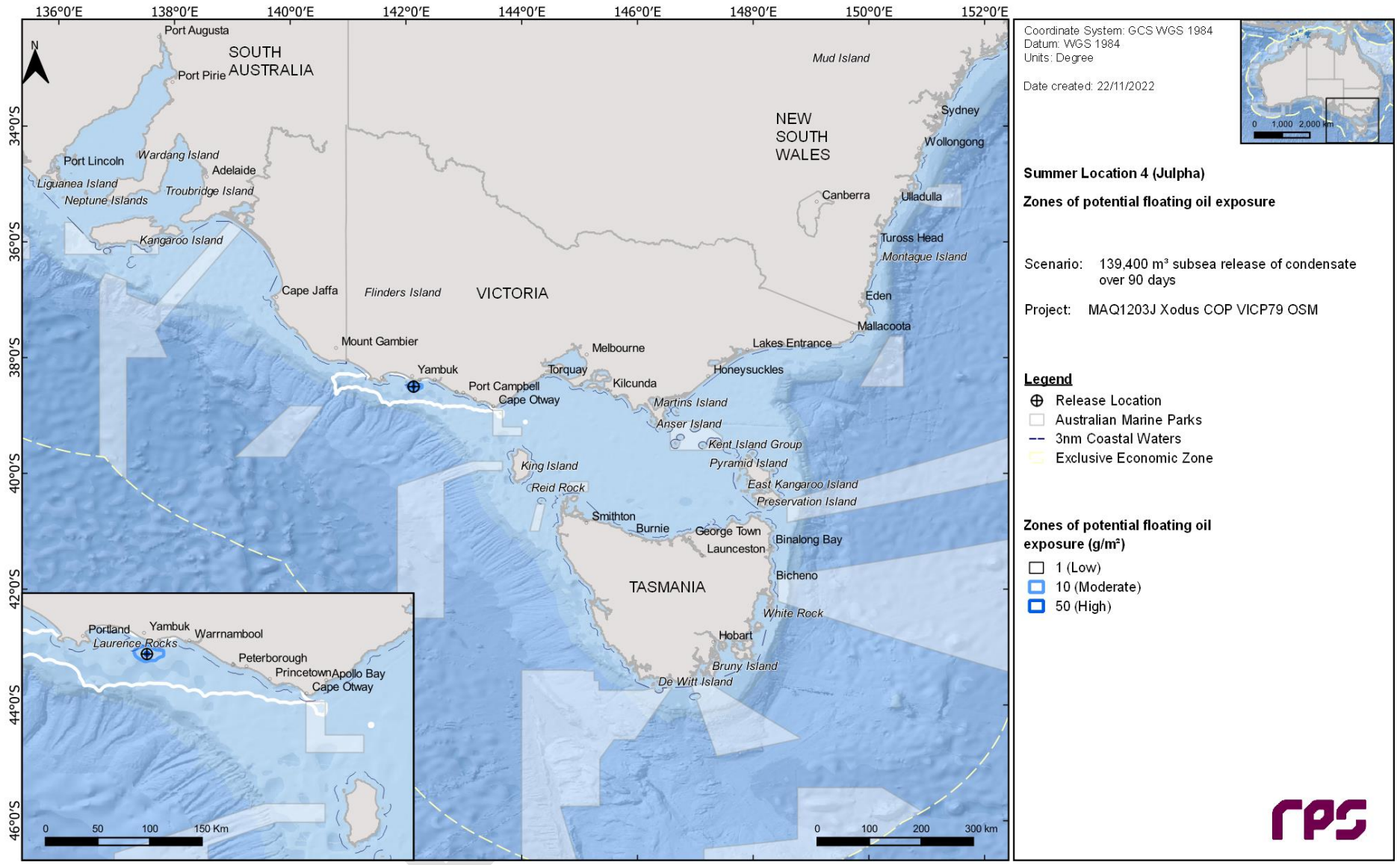


Figure 16.2 Zones of potential floating oil exposure from a subsea LOWC at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

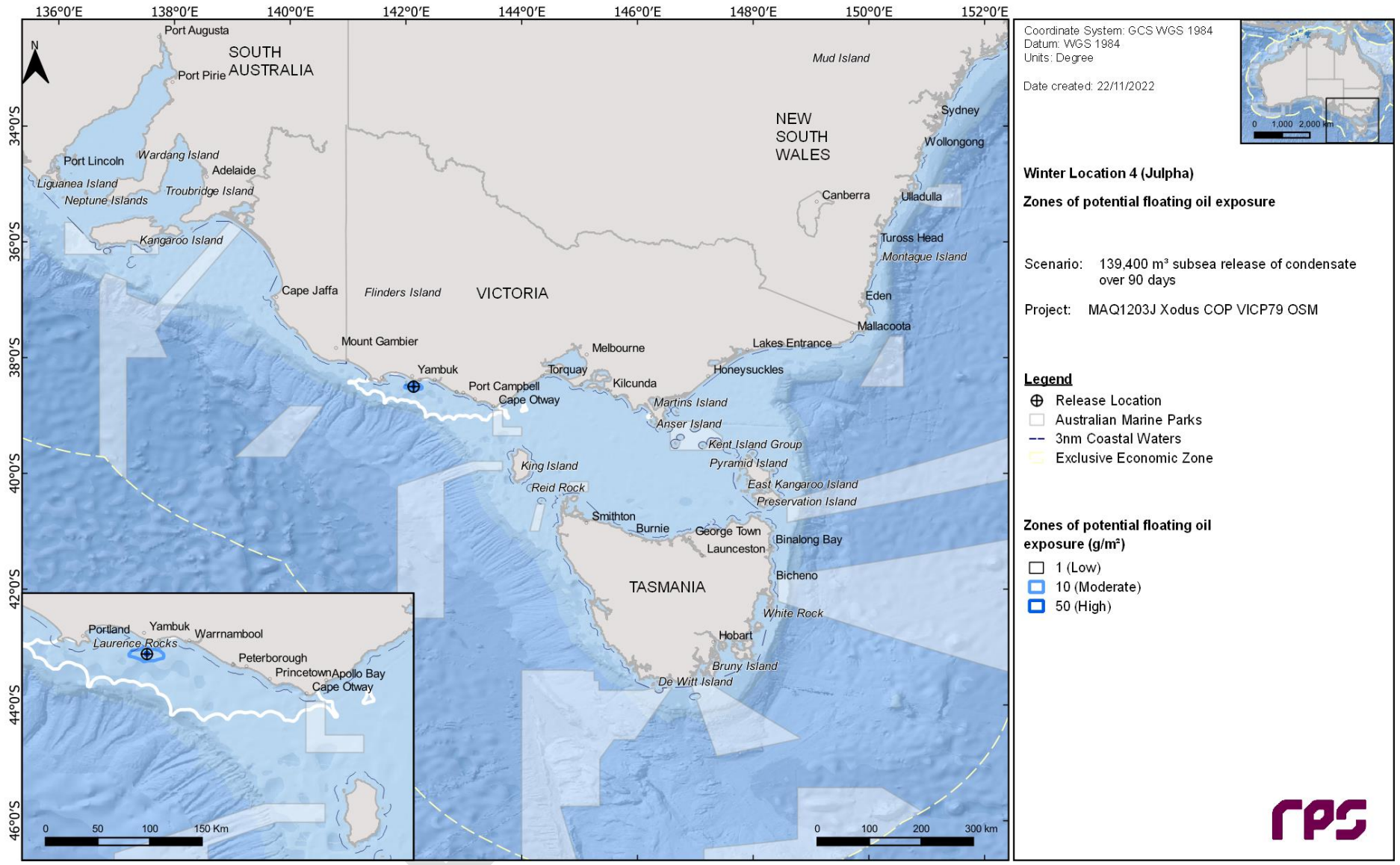


Figure 16.3 Zones of potential floating oil exposure from a subsea LOWC at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

16.2.2 Shoreline Accumulation

Table 16.3 summarises the predicted accumulation on any shoreline during each season.

Table 16.4 and Table 16.5 summarises the accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 16.4 and Figure 16.5.

Table 16.3 Summary of accumulation on any shoreline from a subsea LOWC at Location 4 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	100	100
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	2.17	1.92
Maximum volume of hydrocarbons ashore (m^3)	236.2	318.9
Average volume of hydrocarbons ashore (m^3)	90.8	126.9
Maximum length of the shoreline at **10 g/m^2** (km)	216	226
Average shoreline length (km) at **10 g/m^2** (km)	132.6	153.5
Maximum length of the shoreline at **100 g/m^2** (km)	65	76
Average shoreline length (km) at **100 g/m^2** (km)	29	38.4
Maximum length of the shoreline at **1,000 g/m^2** (km)	3	4
Average shoreline length (km) at **1,000 g/m^2** (km)	1.8	1.8

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Table 16.4 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 4 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	1	-	-	56.79	-	-	11	11	0.1	0.1	1	-	-	1	-	-
Bass Coast	2	-	-	35.17	-	-	18	23	< 0.1	1	1.4	-	-	1.9	-	-
Colac Otway	57	14	-	8.17	19.5	-	29	272	3.4	22.1	13.6	2.9	-	35.4	6.7	-
Corangamite	95	79	-	3.46	4.75	-	53	503	14.1	36.3	24.7	4.3	-	44.9	15.3	-
Glenelg	90	65	2	5.08	7.42	37.04	79	1,154	23.5	94.5	26.4	8.6	1.4	63.1	19.1	1.9
Glennie Group	1	-	-	80.79	-	-	12	12	< 0.1	0.2	1	-	-	1	-	-
Grant	9	-	-	19.92	-	-	12	27	0.1	1.8	2.1	-	-	3.8	-	-
Greater Geelong	1	-	-	78.67	-	-	12	12	0.4	0.4	1	-	-	1	-	-
Hogan Island Group	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Kanowna Island	1	-	-	105.04	-	-	11	11	0.2	0.2	1	-	-	1	-	-
King Island	4	-	-	62.92	-	-	14	19	< 0.1	2.3	2.4	-	-	6.7	-	-
Lady Julia Percy Island	98	67	1	2.17	2.29	83.75	178	1,339	2.1	16.1	1	1	1	1	1	1
Laurence Rocks	80	47	-	4.33	6.92	-	80	583	2.1	9.4	2.8	1.3	-	2.9	2.9	-
Moncoeur Islands	-	-	-	-	-	-	-	-	< 0.1	0.2	-	-	-	-	-	-
Mornington Peninsula	3	-	-	69.5	-	-	15	31	< 0.1	2	4.8	-	-	5.7	-	-
Moyne	100	95	5	2.33	3.25	31.83	81	1,819	43.5	108.6	48.6	11.6	1.3	84.1	25.8	1.9
Norman Island	4	-	-	46.83	-	-	32	48	< 0.1	0.7	1.4	-	-	1.9	-	-
Phillip Island	4	-	-	38.92	-	-	15	22	< 0.1	1.1	1.9	-	-	3.8	-	-
Rodondo Island	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Seal Islands	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Shellback Island	1	-	-	56.38	-	-	27	27	0.3	0.3	1	-	-	1	-	-
Skull Rock	1	-	-	105.04	-	-	11	11	0.2	0.2	1	-	-	1	-	-
South Gippsland	4	-	-	46.79	-	-	21	53	0.3	8.1	19.4	-	-	25.8	-	-

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Surf Coast	4	-	-	31.17	-	-	14	24	< 0.1	1.5	2.4	-	-	3.8	-	-
Warrnambool	99	74	1	3.29	4.25	36.58	85	1,566	21.2	121.9	18.7	8.1	2.9	28.7	17.2	2.9
Wattle Range	4	-	-	42.38	-	-	12	17	< 0.1	1.3	2.9	-	-	3.8	-	-

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Table 16.5 Summary of accumulation on individual shoreline sectors from a subsea LOWC at Location 4 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	33	-	-	22.88	-	-	18	37	0.1	0.6	1.1	-	-	1.9	-	-
Bass Coast	24	1	-	21.79	109.75	-	16	105	0.3	3.5	2.3	1	-	6.7	1	-
Colac Otway	99	66	-	5.08	14.08	-	47	471	11.5	42.8	22	4.1	-	47.8	11.5	-
Corangamite	100	96	-	3.75	4.83	-	85	961	32.4	96.2	34.4	9.6	-	52.6	20.1	-
Glenelg	59	23	-	6.08	18.17	-	55	964	8.1	63.8	15.9	8.2	-	51.6	21	-
Glennie Group	29	-	-	22.46	-	-	15	59	0.2	1.7	2.3	-	-	5.7	-	-
Grant	2	-	-	81.25	-	-	12	15	< 0.1	1.3	3.3	-	-	4.8	-	-
Greater Geelong	-	-	-	-	-	-	-	-	< 0.1	0.5	-	-	-	-	-	-
Hogan Island Group	3	-	-	87.21	-	-	14	16	< 0.1	0.4	1	-	-	1	-	-
Kanowna Island	35	-	-	19.17	-	-	18	41	0.2	0.7	1.4	-	-	2.9	-	-
King Island	8	-	-	18.54	-	-	14	37	0.2	3.1	2.7	-	-	10.5	-	-
Lady Julia Percy Island	91	50	9	3	3.25	3.63	227	1,617	2.5	19.5	1	1	1	1	1	1
Laurence Rocks	51	13	-	3.54	28	-	54	267	0.9	6	2.6	2.1	-	2.9	2.9	-
Moncoeur Islands	8	-	-	28.75	-	-	19	27	< 0.1	0.5	1.3	-	-	1.9	-	-
Mornington Peninsula	15	-	-	21.96	-	-	17	44	0.2	2	2.5	-	-	4.8	-	-
Moyne	100	100	16	2.21	3.38	16.96	111	1,578	59.3	176.9	48	14.2	1.6	77.4	25.8	2.9
Norman Island	42	6	-	20.88	21.92	-	32	191	0.5	5.2	2	2.1	-	4.8	2.9	-
Phillip Island	17	-	-	19.21	-	-	14	38	0.2	1.3	1.9	-	-	4.8	-	-
Rodondo Island	12	-	-	28.54	-	-	18	36	< 0.1	0.4	1	-	-	1	-	-
Seal Islands	1	-	-	59.75	-	-	10	10	0.4	0.4	1	-	-	1	-	-
Shellback Island	20	-	-	22.54	-	-	19	60	< 0.1	0.7	1	-	-	1	-	-
Skull Rock	35	-	-	19.17	-	-	19	41	0.1	0.6	1.3	-	-	1.9	-	-
South Gippsland	63	12	-	18.88	22.21	-	21	220	2.5	17.6	10.3	2.4	-	37.3	3.8	-

DRAFT

Surf Coast	10	-	-	18.75	-	-	19	40	0.2	1.4	2.3	-	-	3.8	-	-
Warrnambool	97	88	2	1.92	3	32.5	108	1,563	27.3	125.3	20.6	8.6	2.9	28.7	18.2	2.9
Wattle Range	2	-	-	81.08	-	-	13	15	< 0.1	1.1	1.4	-	-	1.9	-	-

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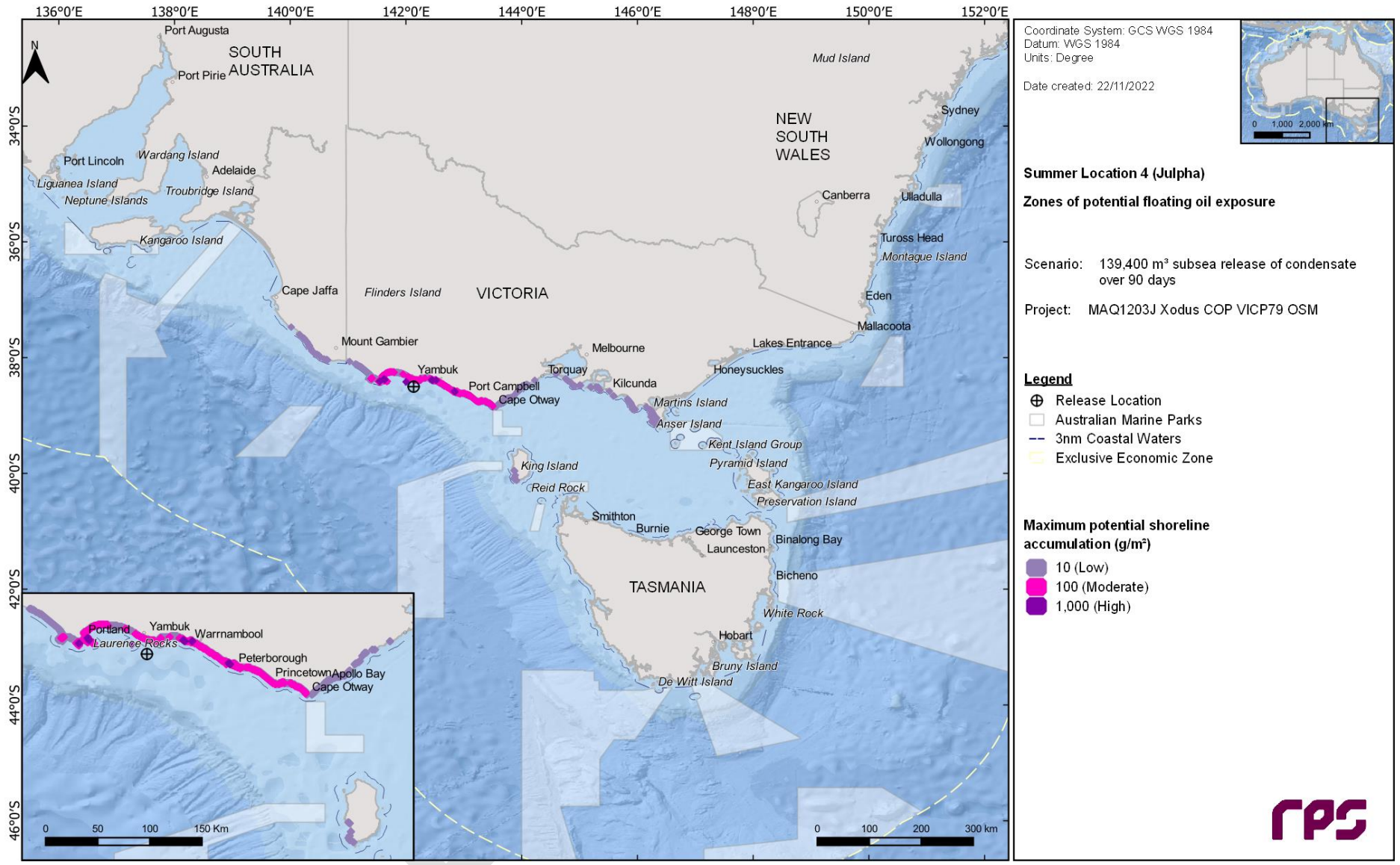


Figure 16.4 Maximum potential shoreline loading from a subsea LOWC at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

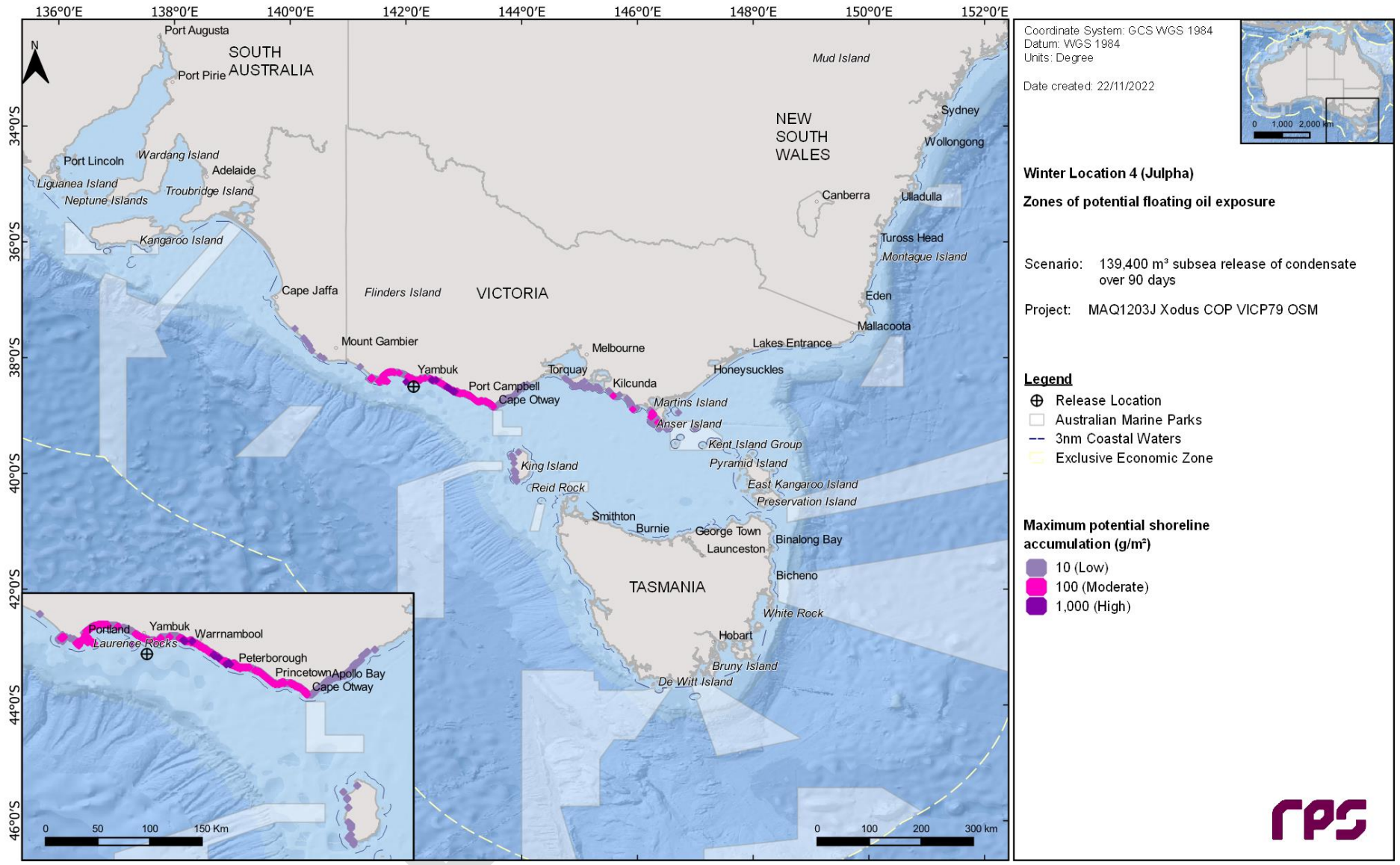


Figure 16.5 Maximum potential shoreline loading from a subsea LOWC at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

16.2.3 In-water exposure

16.2.3.1 Dissolved Hydrocarbons

Table 16.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 16.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 16.6 and Figure 16.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 16.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	626	456	264
	Maximum distance (km) from release location (99^{th} percentile)	457	339	200
	Direction	E	E	WNW
Winter	Maximum distance (km) from release location	686	403	221
	Maximum distance (km) from release location (99^{th} percentile)	433	281	188
	Direction	E	E	E

Table 16.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	1,753	58	34	8	2,091	92	81	19
	Beagle	140	5	2	-	51	6	1	-
	Franklin	18	2	-	-	2	-	-	-
	Murray	40	2	-	-	11	1	-	-
	Nelson	390	19	12	-	374	5	3	-
	Zeehan	220	13	5	-	250	5	2	-
IBRA	Bridgewater	1,611	88	80	33	2,144	53	37	9
	Flinders	37	4	-	-	19	2	-	-
	Gippsland Plain	124	6	2	-	167	13	3	-
	Glenelg Plain	2,434	95	91	69	3,306	67	60	27
	King Island	17	1	-	-	78	2	1	-
	Otway Plain	2,430	67	53	17	2,542	99	95	51
	Otway Ranges	2,476	76	59	22	3,809	100	98	78
	Strzelecki Ranges	82	5	1	-	47	6	-	-
	Warrnambool Plain	6,709	100	100	93	5,083	100	100	100
	Wilsons Promontory	94	7	1	-	65	10	1	-
IMCRA	Central Bass Strait	1,544	45	23	4	2,033	85	68	8
	Central Victoria	1,374	52	32	5	1,954	92	77	14
	Coorong	291	17	6	-	124	5	2	-
	Flinders	160	9	2	-	71	11	1	-
	Franklin	21	1	-	-	9	-	-	-
	Otway	8,435	100	100	100	8,029	100	100	100
	Twofold Shelf	66	5	1	-	47	5	-	-
	Victorian Embayments	25	2	-	-	88	6	1	-
KEF	Bonney Coast Upwelling	8,268	100	100	100	6,042	100	100	100
	Upwelling East of Eden	17	2	-	-	16	1	-	-
	West Tasmania Canyons	574	26	12	1	335	12	4	-
MNP	Bunurong	26	3	-	-	112	7	2	-
	Churchill Island	10	-	-	-	30	2	-	-
	Discovery Bay	1,368	86	77	22	1,737	40	27	5
	Point Addis	177	3	1	-	61	11	1	-

	Port Phillip Heads	20	2	-	-	19	2	-	-
	Twelve Apostles	6,355	95	89	67	4,998	100	100	98
	Wilsons Promontory	73	7	1	-	60	9	1	-
MS	Marengo Reefs	318	29	11	-	580	82	48	2
	Merri	1,115	100	96	38	1,931	100	98	49
	Mushroom Reef	14	1	-	-	88	4	1	-
	The Arches	2,815	96	92	61	2,932	100	100	88
Nearshore Waters	Anser Island	53	7	1	-	42	7	-	-
	Bass Coast	33	2	-	-	44	6	-	-
	Colac Otway	2,476	73	54	17	3,809	99	97	59
	Corangamite	6,709	97	97	93	4,782	100	100	100
	Curtis Island	10	1	-	-	19	1	-	-
	Glenelg	2,434	95	91	69	3,306	67	60	27
	Glennie Group	78	7	1	-	65	10	1	-
	Grant	212	26	11	-	106	6	1	-
	Greater Geelong	42	3	-	-	41	2	-	-
	Hogan Island Group	37	4	-	-	16	2	-	-
	Kanowna Island	61	7	1	-	42	7	-	-
	King Island	17	1	-	-	78	2	1	-
	Lady Julia Percy Island	3,110	100	99	83	4,034	98	96	73
	Laurence Rocks	2,602	95	93	74	2,746	73	69	35
	Moncoeur Islands	61	3	1	-	26	6	-	-
	Mornington Peninsula	40	3	-	-	167	11	3	-
	Moyne	6,675	100	100	93	5,083	100	100	100
	Mud Island	4	-	-	-	13	1	-	-
	Norman Island	59	6	1	-	31	5	-	-
	Phillip Island	40	2	-	-	90	12	2	-
	Rodondo Island	94	3	1	-	33	8	-	-
	Seal Islands	21	1	-	-	18	1	-	-
	Shellback Island	67	4	1	-	22	4	-	-
	Skull Rock	54	5	1	-	59	8	1	-
	South Gippsland	124	7	2	-	62	9	1	-
	Surf Coast	126	4	1	-	70	15	2	-
	Warrnambool	3,505	100	100	71	2,980	100	100	80
	Wattle Range	58	3	1	-	20	1	-	-
NPS4	Bunurong Marine Park	33	2	-	-	27	6	-	-
	Corner Inlet Marine and Coastal Park	11	1	-	-	10	-	-	-

	Wilsons Promontory Marine Park	67	4	1	-	22	3	-	-
	Wilsons Promontory Marine Reserve	49	7	-	-	33	7	-	-
Ramsar	Corner Inlet	11	1	-	-	10	-	-	-
	Glenelg Estuary and Discovery Bay Wetlands	349	43	12	-	173	6	3	-
	Piccaninnie Ponds Karst Wetlands	51	11	1	-	40	3	-	-
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	14	1	-	-	9	-	-	-
	Western Port	10	-	-	-	30	2	-	-
RSB	Bravenes Rock	816	67	49	3	1,408	99	91	26
	Cody Bank	87	8	2	-	56	12	1	-
	Cutter Rock	19	1	-	-	14	3	-	-
State Waters	South Australia	376	37	18	-	239	7	4	-
	Tasmania	66	5	1	-	206	4	1	-
	Victoria	6,709	100	100	100	6,606	100	100	100

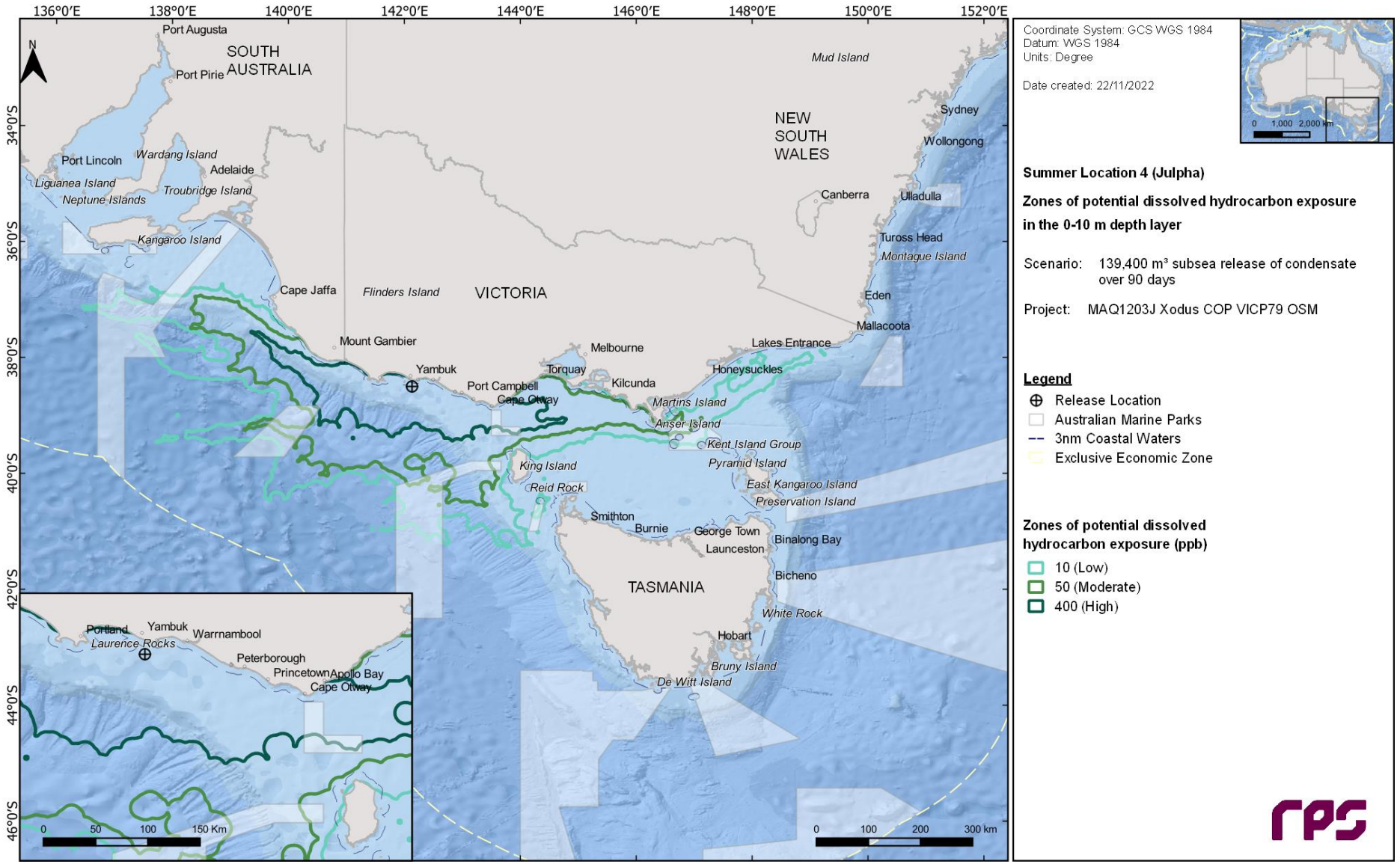


Figure 16.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

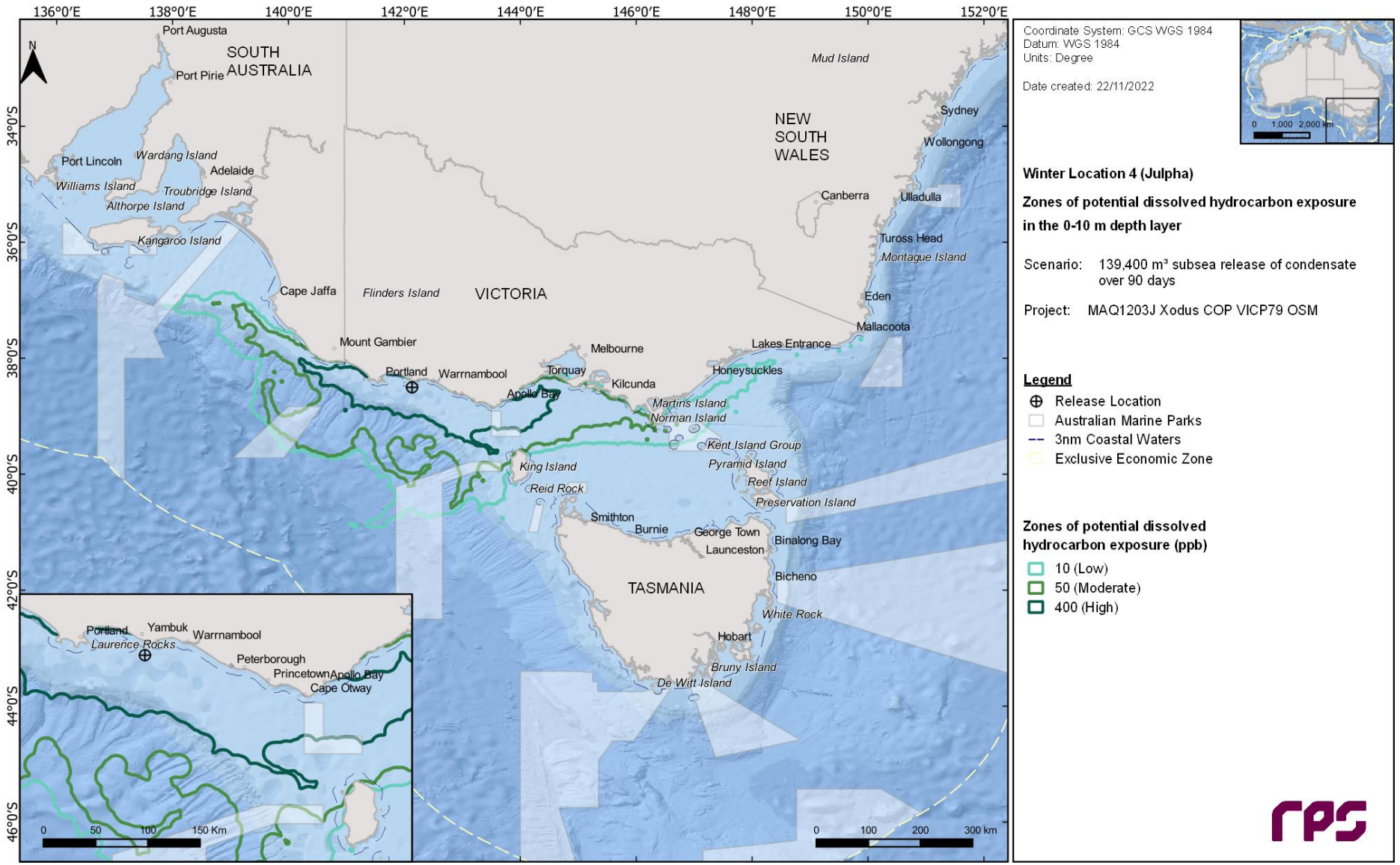


Figure 16.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

16.2.3.2 Entrained Hydrocarbons

Table 16.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 16.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 16.8 and Figure 16.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 16.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a subsea LOWC at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	902	426
	Maximum distance (km) from release location (99^{th} percentile)	851	328
	Direction	ENE	E
Winter	Maximum distance (km) from release location	877	408
	Maximum distance (km) from release location (99^{th} percentile)	832	367
	Direction	E	E

Table 16.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a subsea LOWC at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	586	78	43	781	99	91
	Beagle	102	32	1	126	72	4
	East Gippsland	14	2	-	26	15	-
	Franklin	17	6	-	13	3	-
	Murray	43	22	-	15	2	-
	Nelson	70	27	-	77	11	-
	Zeehan	209	28	7	181	34	4
IBRA	Bateman	13	1	-	22	7	-
	Bridgewater	1,781	92	88	1,552	62	46
	East Gippsland Lowlands	30	8	-	30	31	-
	Flinders	98	16	-	74	47	-
	Gippsland Plain	140	33	3	319	79	11
	Glenelg Plain	2,683	96	91	1,976	69	60
	King Island	99	20	-	101	34	1
	Otway Plain	907	85	65	1,209	99	99
	Otway Ranges	965	90	76	1,133	100	99
	South East Coastal Ranges	6	-	-	12	6	-
	Strzelecki Ranges	73	26	-	155	77	9
	Tasmanian West	12	4	-	10	1	-
	Warrnambool Plain	3,047	100	100	3,167	100	100
	Wilsons Promontory	126	33	2	342	81	30
IMCRA	Batemans Shelf	39	8	-	38	14	-
	Central Bass Strait	541	73	34	630	97	82
	Central Victoria	515	77	39	697	99	91
	Coorong	112	42	1	34	7	-
	Eyre	13	2	-	3	0	-
	Flinders	126	33	3	345	82	30
	Franklin	26	11	-	13	2	-
	Otway	11,151	100	100	12,086	100	100
	Twofold Shelf	103	26	1	85	67	-
	Victorian Embayments	111	29	3	116	73	2
KEF	Ancient coastline at 90-120 m depth	13	2	-	2	-	-
	Big Horseshoe Canyon	36	11	-	22	20	-
	Bonney Coast Upwelling	4,849	100	100	4,530	100	100
	Canyons on the eastern continental slope	46	6	-	19	6	-

	Kangaroo Island Pool, canyons and adjacent shelf break, and Eyre Peninsula upwellings	13	2	-	3	-	-
	Shelf rocky reefs	16	7	-	27	8	-
	Upwelling East of Eden	87	13	-	56	48	-
	West Tasmania Canyons	252	52	15	235	51	15
MNP	Bunurong	63	30	-	115	76	2
	Cape Howe	39	8	-	30	33	-
	Churchill Island	32	18	-	67	67	-
	Discovery Bay	479	92	80	551	56	30
	French Island	7	-	-	12	3	-
	Ninety Mile Beach	4	-	-	10	1	-
	Point Addis	58	34	-	53	88	-
	Point Hicks	20	6	-	29	35	-
	Port Phillip Heads	97	28	-	85	57	-
	Twelve Apostles	1,754	97	94	1,785	100	100
	Wilsons Promontory	126	33	2	301	81	30
MP	Batemans	15	5	-	28	9	-
	Lower South East	101	56	1	94	10	-
	Southern Kangaroo Island	13	3	-	1	-	-
	Upper South East	32	19	-	26	2	-
MS	Beware Reef	5	-	-	15	4	-
	Marengo Reefs	227	69	20	301	98	60
	Merri	2,541	100	100	2,629	100	98
	Mushroom Reef	55	27	-	80	68	-
	The Arches	1,185	97	93	998	100	100
Nearshore Waters	Anser Island	118	31	1	210	76	29
	Bass Coast	49	27	-	193	74	6
	Bega Valley	30	8	-	30	27	-
	Colac Otway	907	89	70	1,209	100	99
	Corangamite	2,123	98	97	2,441	100	100
	Curtis Island	92	16	-	65	31	-
	East Gippsland	29	7	-	27	27	-
	Eurobodalla	8	-	-	15	6	-
	French Island	18	12	-	42	45	-
	Gabo Island	31	7	-	27	31	-
	Glenelg	2,683	96	91	1,976	69	60
	Glennie Group	126	31	2	289	81	29
	Grant	136	54	4	133	9	2
	Greater Geelong	83	27	-	79	53	-
	Hogan Island Group	98	16	-	74	47	-
	Kanowna Island	113	33	1	192	76	30
	Kent Island Group	28	8	-	22	12	-
	King Island	99	20	-	101	34	1
	Lady Julia Percy Island	3,072	100	100	3,080	99	95
	Laurence Rocks	2,253	98	93	2,215	78	68
	Moncoeur Islands	85	31	-	110	71	4

	Montague Island	13	1	-	22	7	-
	Mornington Peninsula	140	32	3	127	75	7
	Moyne	3,047	100	100	3,167	100	100
	Mud Island	58	17	-	59	28	-
	Norman Island	111	30	2	331	80	19
	Phillip Island	78	33	-	140	79	2
	Reid Rock	9	-	-	11	1	-
	Robe	29	14	-	22	2	-
	Rodondo Island	94	32	-	123	72	11
	Seal Islands	30	14	-	48	56	-
	Shellback Island	82	30	-	306	81	11
	Skull Rock	112	33	1	176	78	30
	South Gippsland	112	31	1	343	78	26
	Surf Coast	52	38	-	88	88	-
	Warrnambool	2,853	100	100	2,939	100	100
	Wattle Range	85	32	-	94	3	-
	Wellington	7	-	-	11	2	-
	West Coast	12	4	-	10	1	-
NP	Kent Group	36	8	-	22	12	-
NPS4	Bunurong Marine Park	45	27	-	176	73	5
	Corner Inlet Marine and Coastal Park	28	12	-	81	62	-
	Nooramunga Marine and Coastal Park	5	-	-	10	1	-
	Shallow Inlet Marine and Coastal Park	29	12	-	46	58	-
	Wilsons Promontory Marine Park	85	30	-	324	79	12
	Wilsons Promontory Marine Reserve	113	30	2	270	81	25
Ramsar	Corner Inlet	28	12	-	81	62	-
	Glenelg Estuary and Discovery Bay Wetlands	244	74	28	94	19	-
	Lavinia	12	1	-	20	8	-
	Piccaninnie Ponds Karst Wetlands	57	40	-	26	5	-
	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	51	17	-	56	30	-
	Western Port	32	19	-	62	64	-
RSB	Bell Reef	12	4	-	11	3	-
	Beware Reef	5	-	-	15	4	-
	Bravenes Rock	724	84	65	807	99	96
	Cody Bank	49	28	-	121	78	6
	Cutter Rock	64	30	-	103	56	1
	New Zealand Star Bank	47	10	-	30	42	-
State Waters	New South Wales	34	11	-	33	33	-
	South Australia	168	59	9	151	13	2
	Tasmania	108	23	1	114	50	1

Victoria	3,851	100	100	3,580	100	100

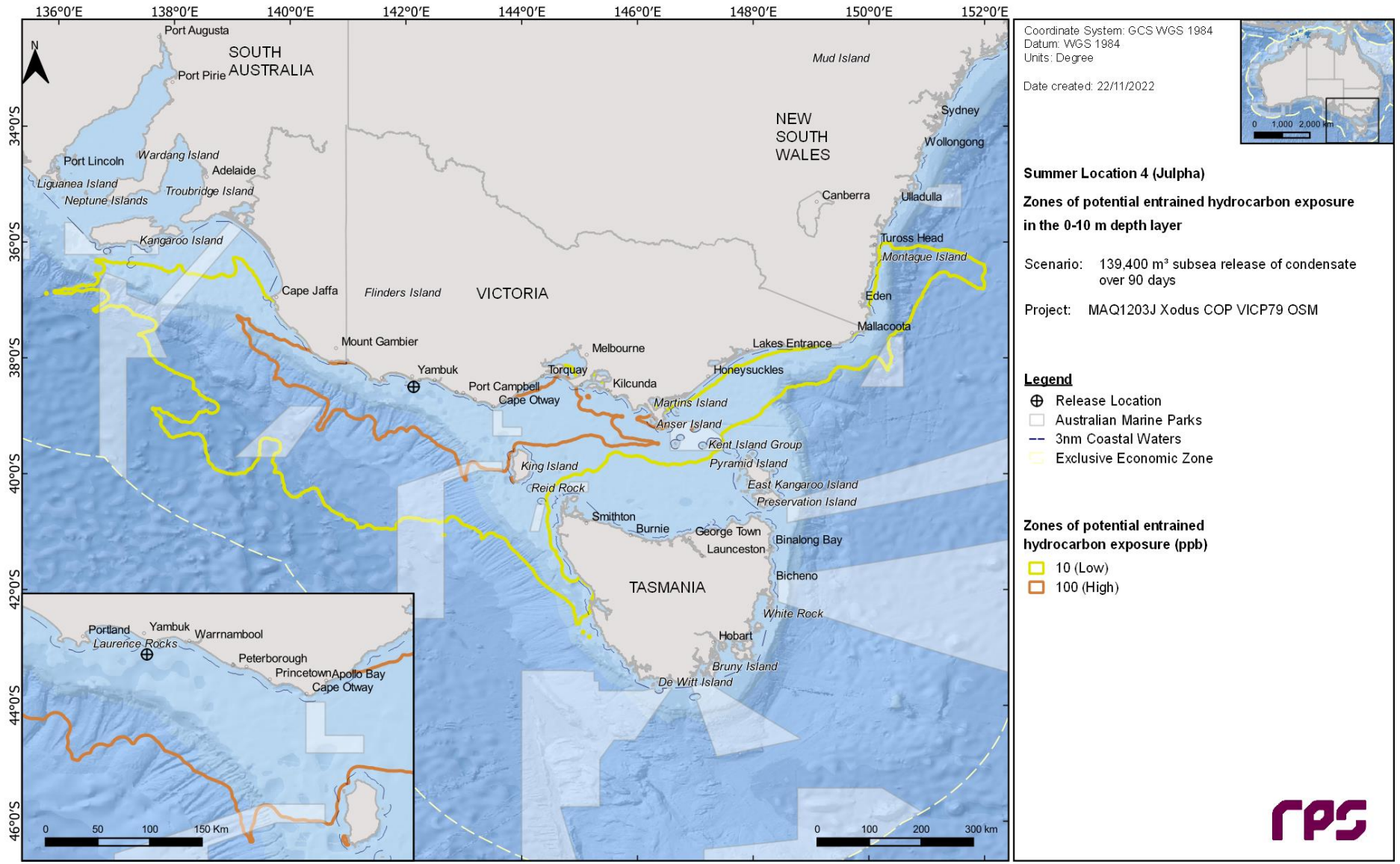


Figure 16.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

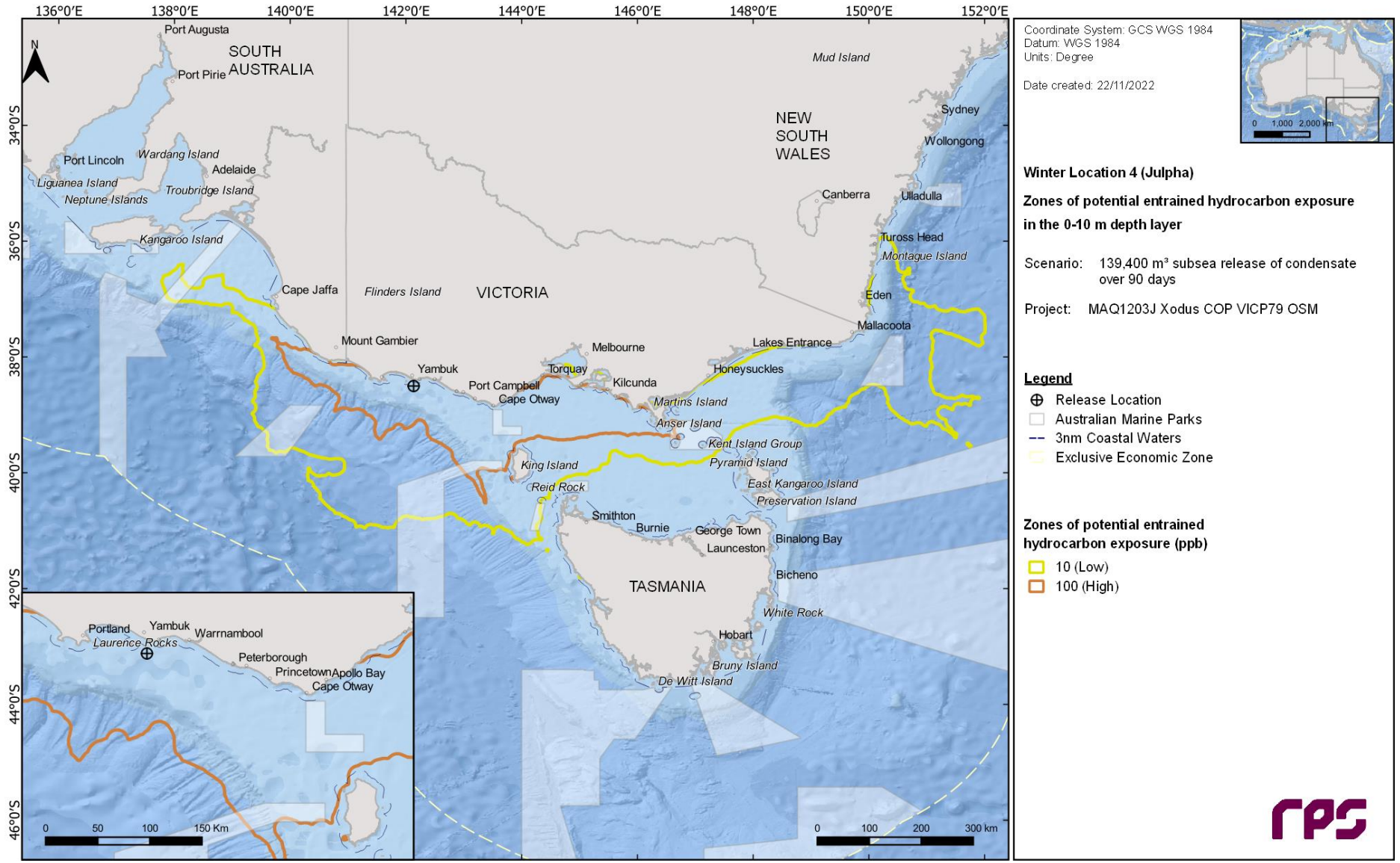


Figure 16.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a subsea LOWC at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

16.3 Deterministic Analysis

16.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 4 pm 6th August 2010.

Figure 16.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days). Initial shoreline accumulation occurred on day 5.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 16.11 and Figure 16.12, respectively.

Figure 16.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 76,490 m^3 (~55%) was lost to the atmosphere through evaporation. Approximately, 60,720 m^3 (~44%) of the released volume decayed, while approximately 2,030 m^3 (~1%) was predicted to remain within the water column and approximately 250 m^3 (~0.2%) was present on the shorelines.

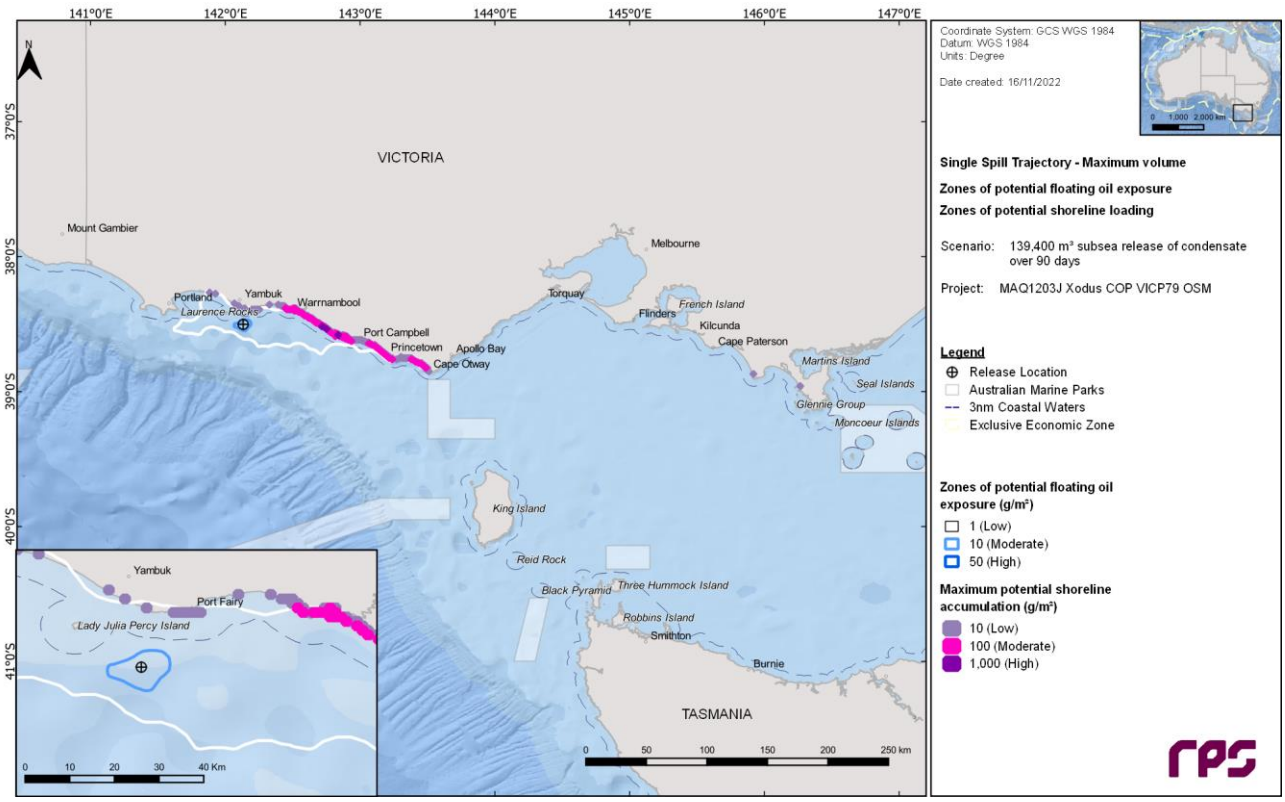


Figure 16.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 4.

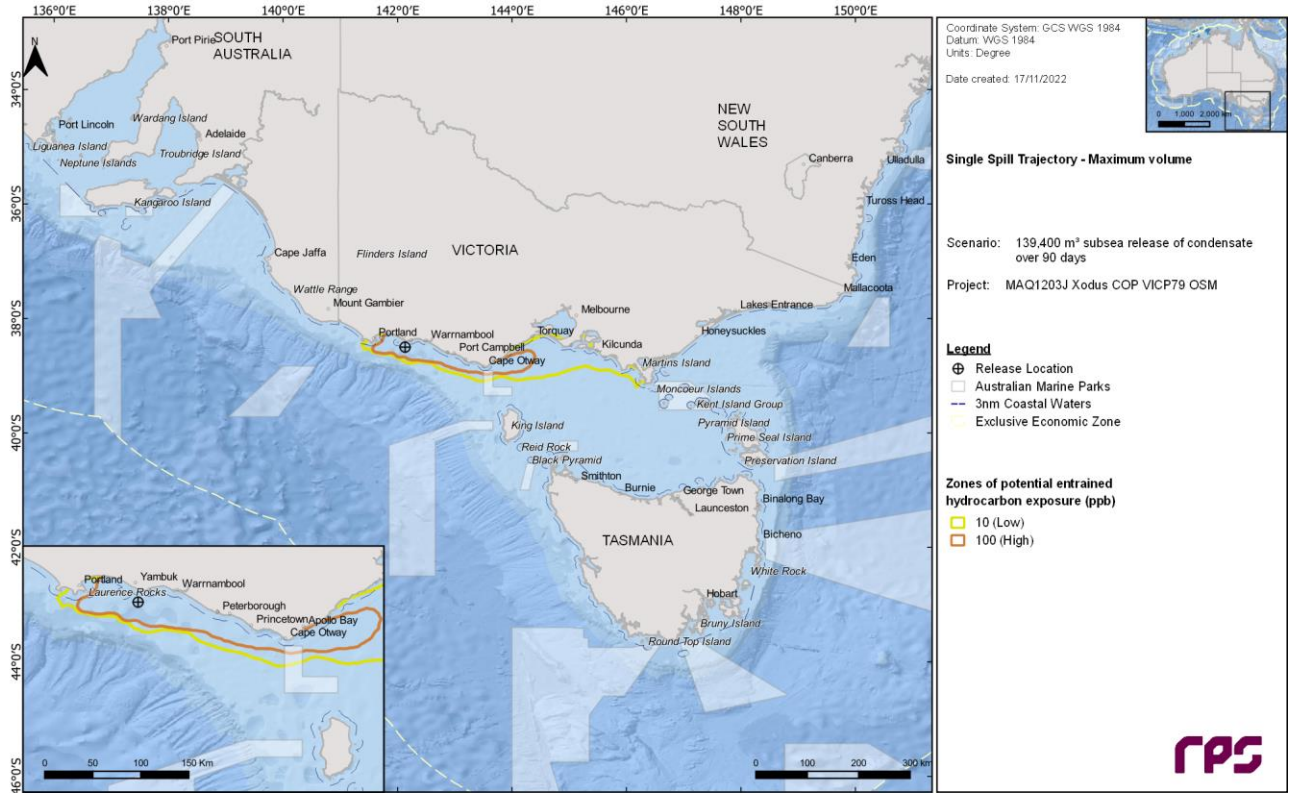


Figure 16.11 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 4.

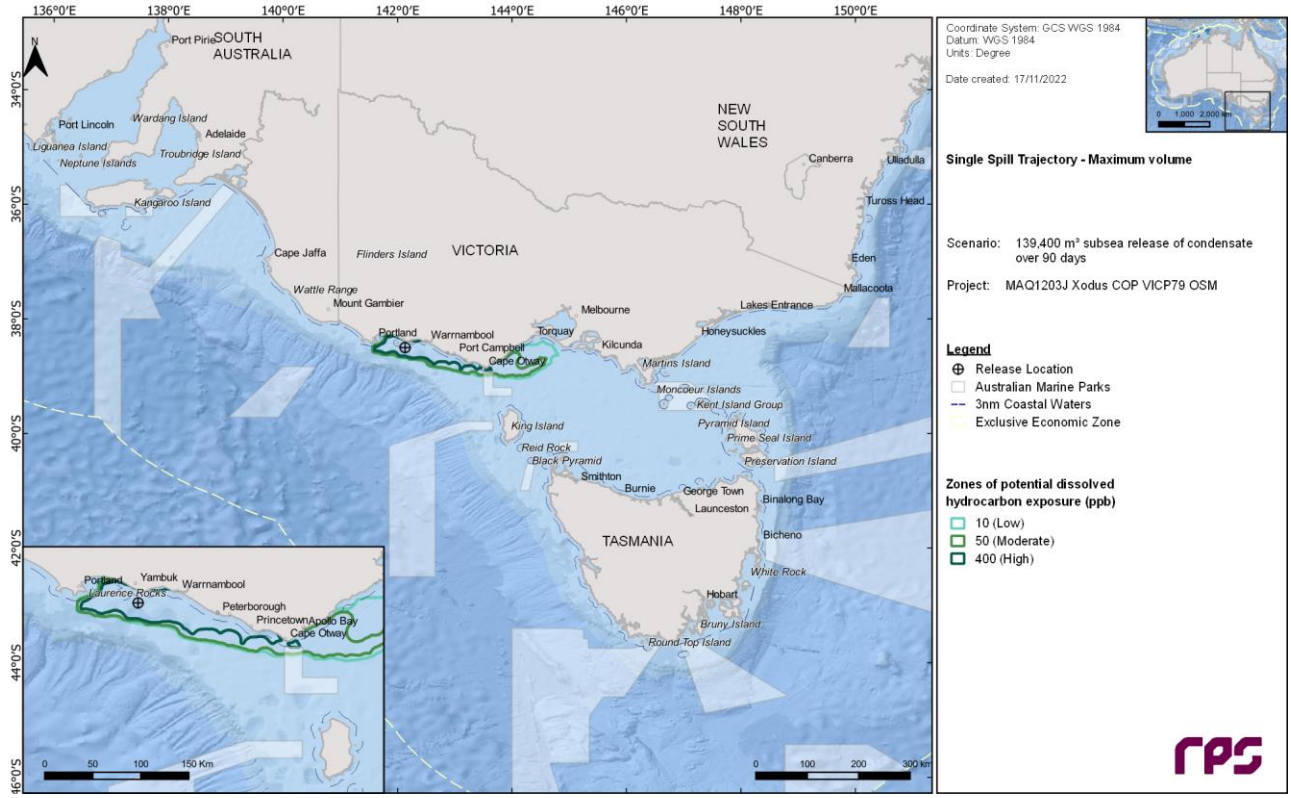


Figure 16.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days of the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 4.

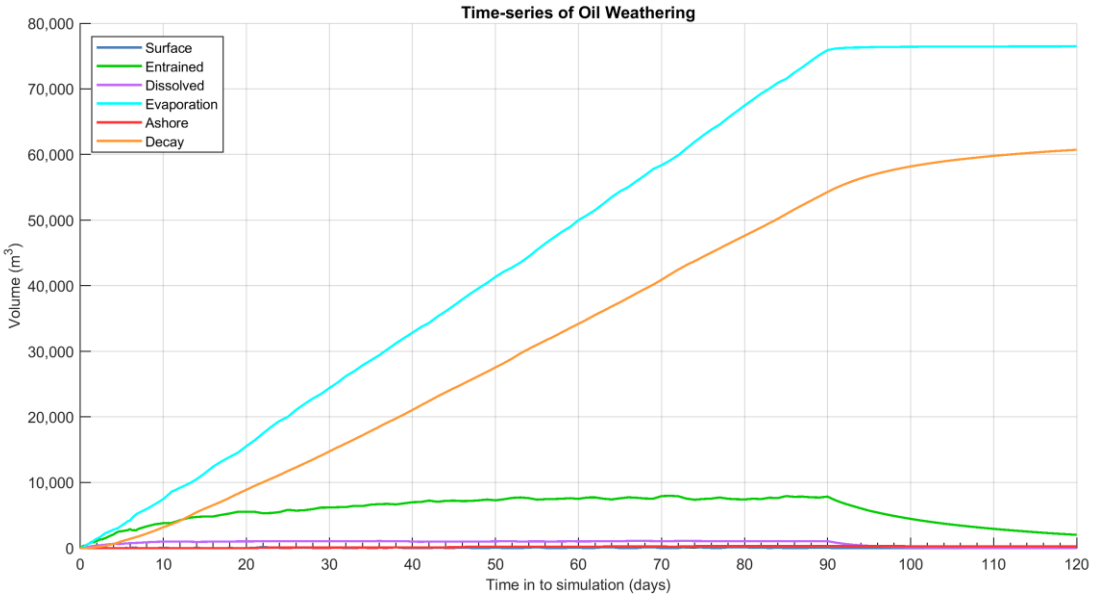


Figure 16.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a subsea LOWC at Location 4.

16.3.2 Minimum time to Shoreline Accumulation

The simulation that resulted in the minimum time to hydrocarbons ashore of 1.92 days was identified as run number 23 which commenced during winter conditions, 12 pm 16th July 2014.

Figure 16.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (120 days).

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 120 day simulation are presented in Figure 16.15 and Figure 16.16, respectively.

Figure 16.17 presents the fates and weathering graph for the corresponding simulation. At the conclusion of the simulation (day-120), approximately 75,180 m^3 (~54%) was lost to the atmosphere through evaporation. Approximately, 58,100 m^3 (~42%) of the released volume decayed, while approximately 1,940 m^3 (~1%) was predicted to remain within the water column and approximately 105 m^3 (<0.1%) remained on shorelines.

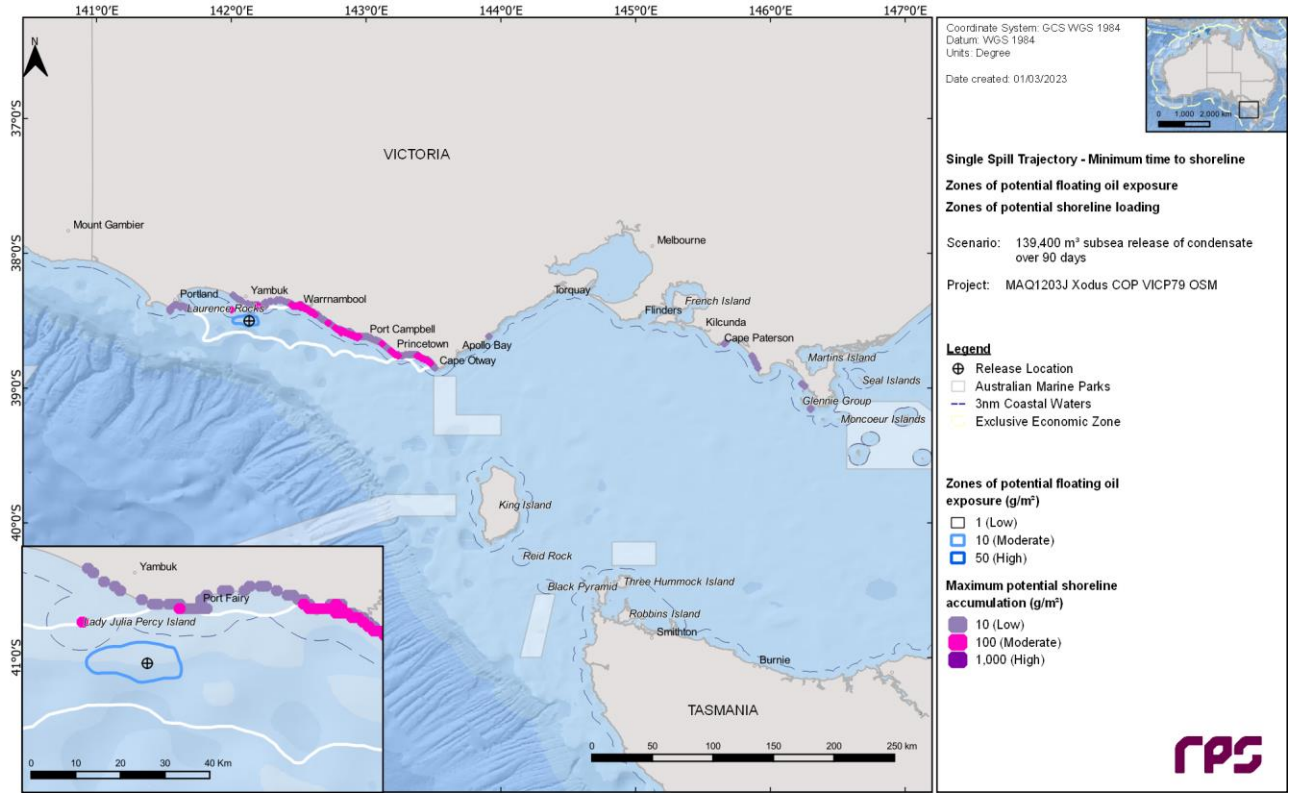


Figure 16.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 120 days for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 4.

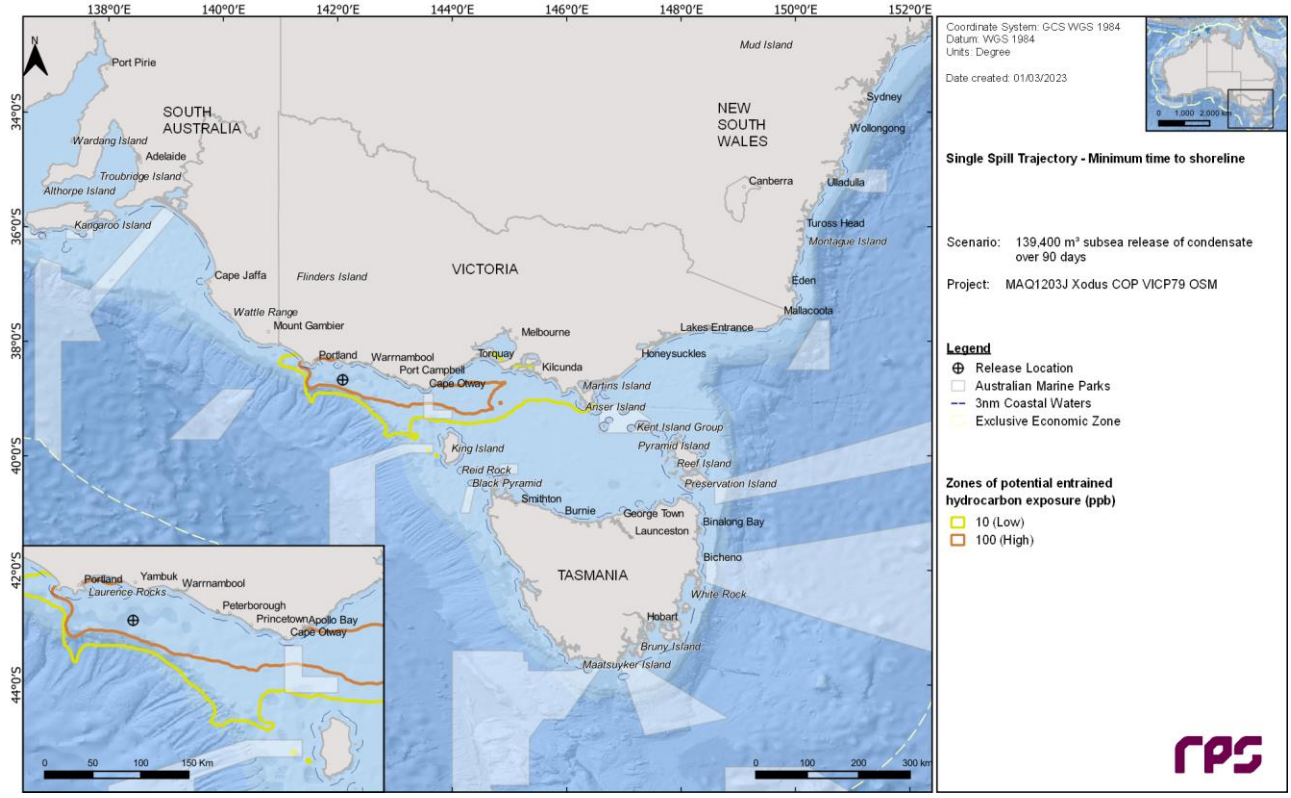


Figure 16.15 Predicted extent of the entrained hydrocarbons exposure over the entire 120 days for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 4.

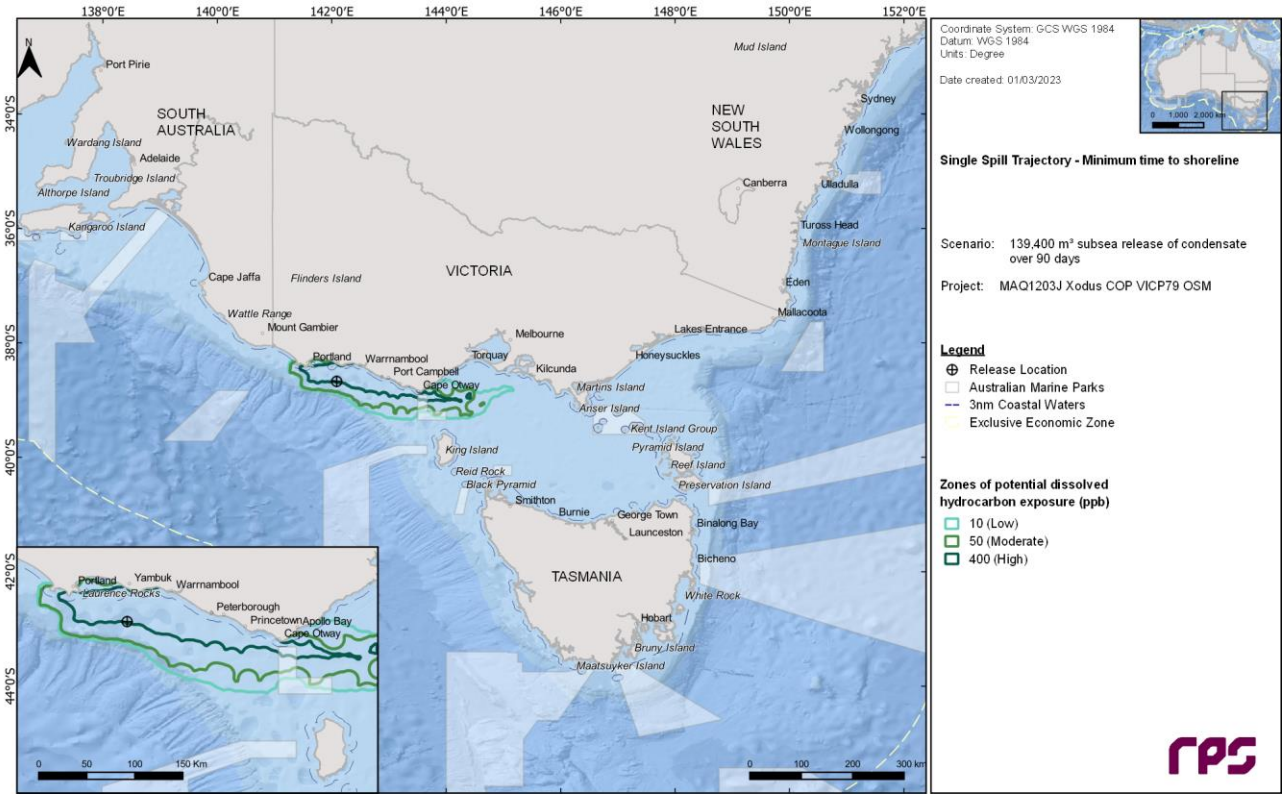


Figure 16.16 Predicted extent of the dissolved hydrocarbons exposure over the entire 120 days for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 4.

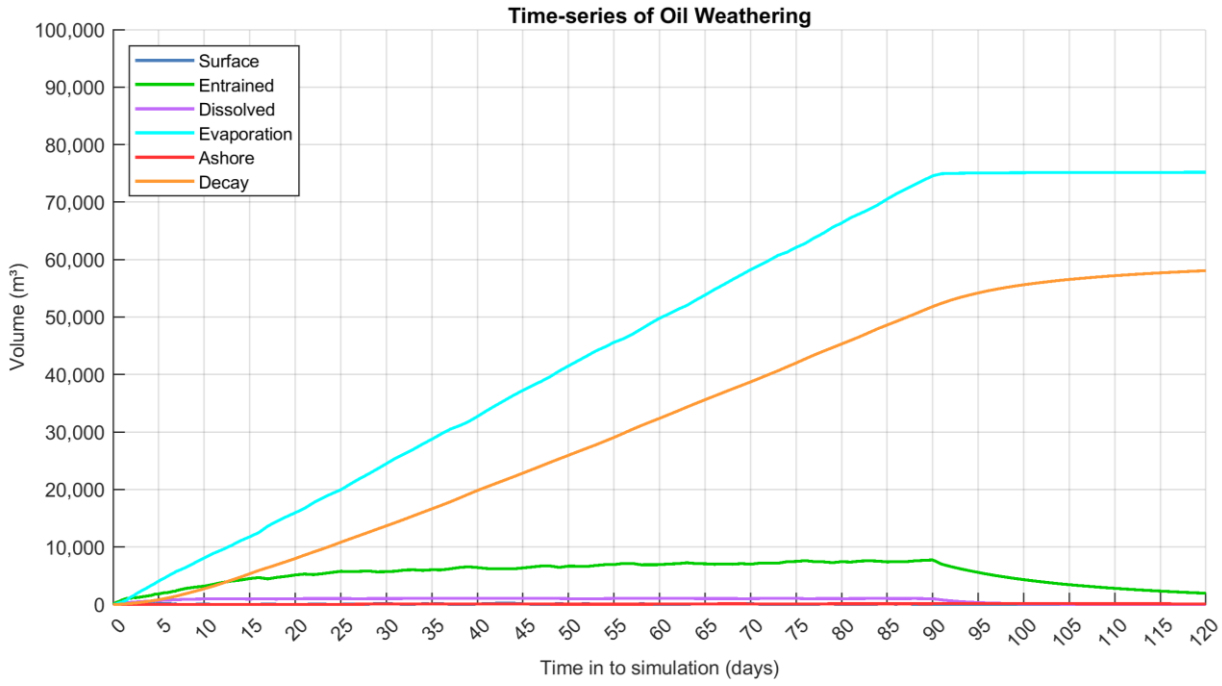


Figure 16.17 Predicted weathering and fates for the simulation that led to the minimum time to shoreline accumulation from a subsea LOWC at Location 4.

17 LOCATION 1 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 1. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 17.1 presents the EMBA, Section 17.2 shows the seasonal (or stochastic) results, while Section 17.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

17.1 EMBA

Figure 17.1 shows the EMBA for Location 1. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

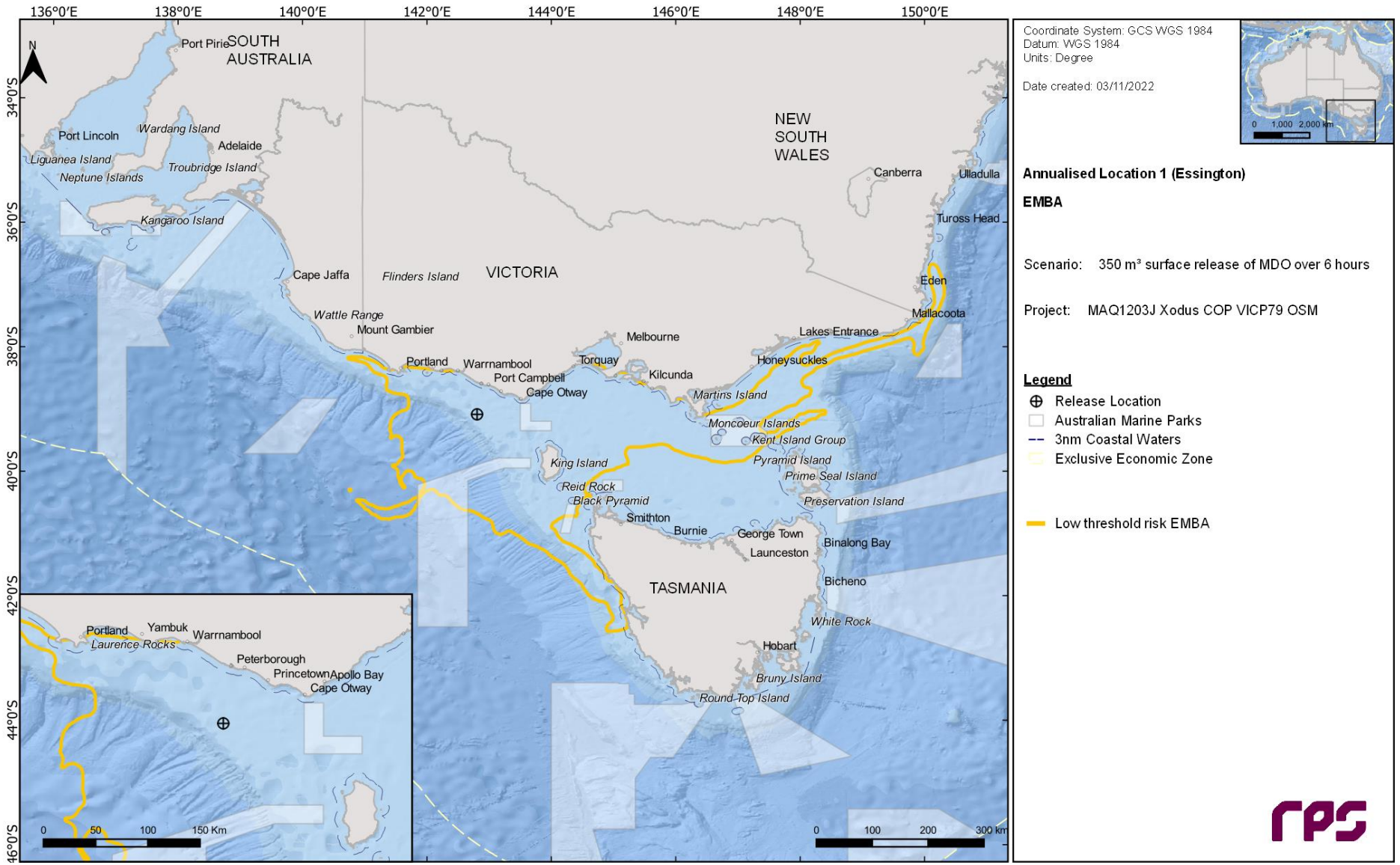


Figure 17.1 Predicted low threshold EMBA from a vessel collision at Location 1. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

17.2 Stochastic Analysis

17.2.1 Floating Oil Exposure

Table 17.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 17.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 17.2 to Figure 17.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 201.6 km^2 and 122.2 km^2, respectively.

Table 17.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	27.9	12.6	4.3
	Maximum distance (km) from release location (99^{th} percentile)	24.5	12.2	4.3
	Direction	W	ESE	ENE
Winter	Maximum distance (km) from release location	52.8	15.9	3.5
	Maximum distance (km) from release location (99^{th} percentile)	46.1	15.3	3.5
	Direction	E	SSE	NE

Table 17.2 **Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 1 for each season. Results were calculated from 100 spill simulations per season.**

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
IMCRA	Otway	100	100	23	0.04	0.04	0.04	100	100	19	0.04	0.04	0.08

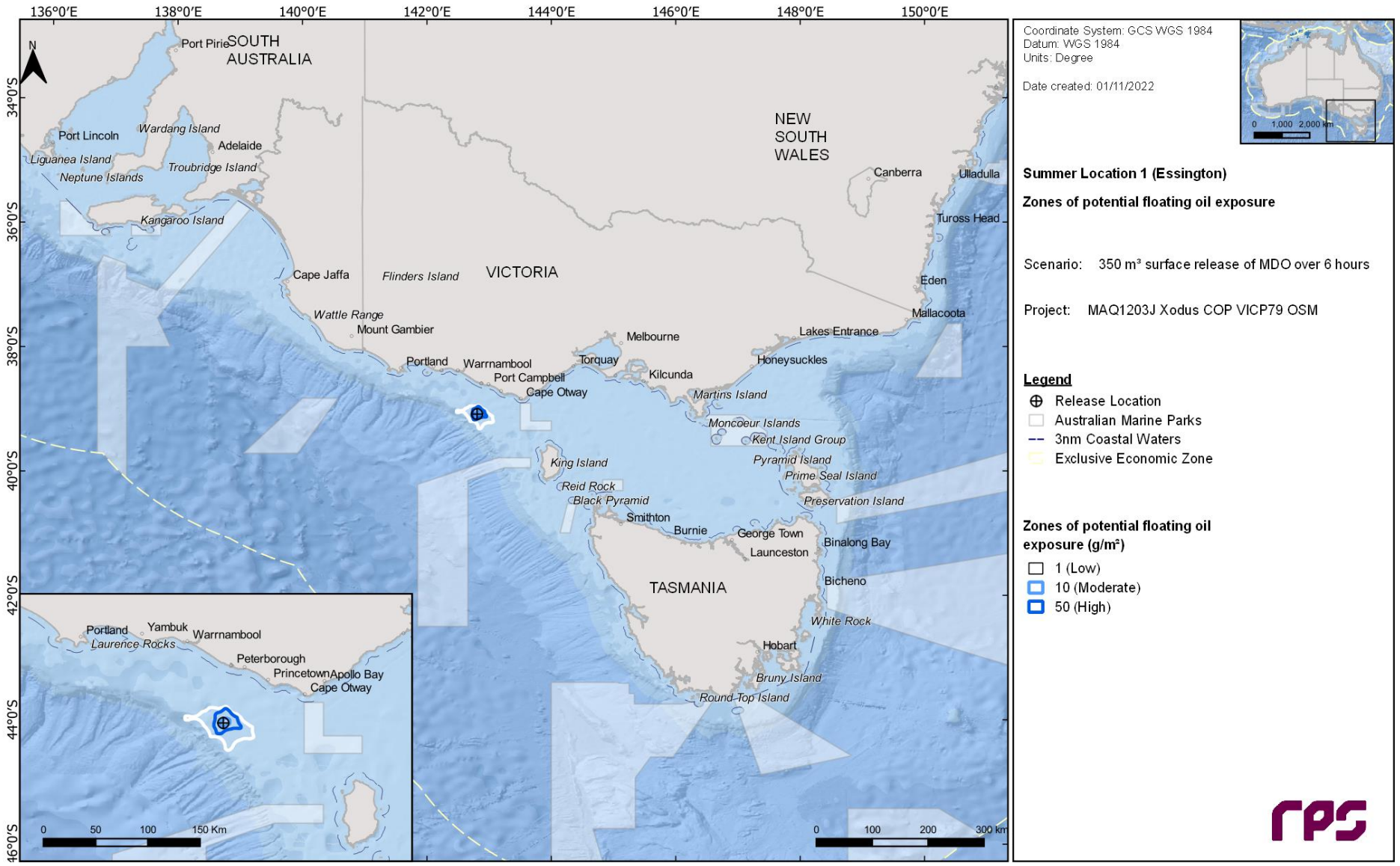


Figure 17.2 Zones of potential floating oil exposure from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

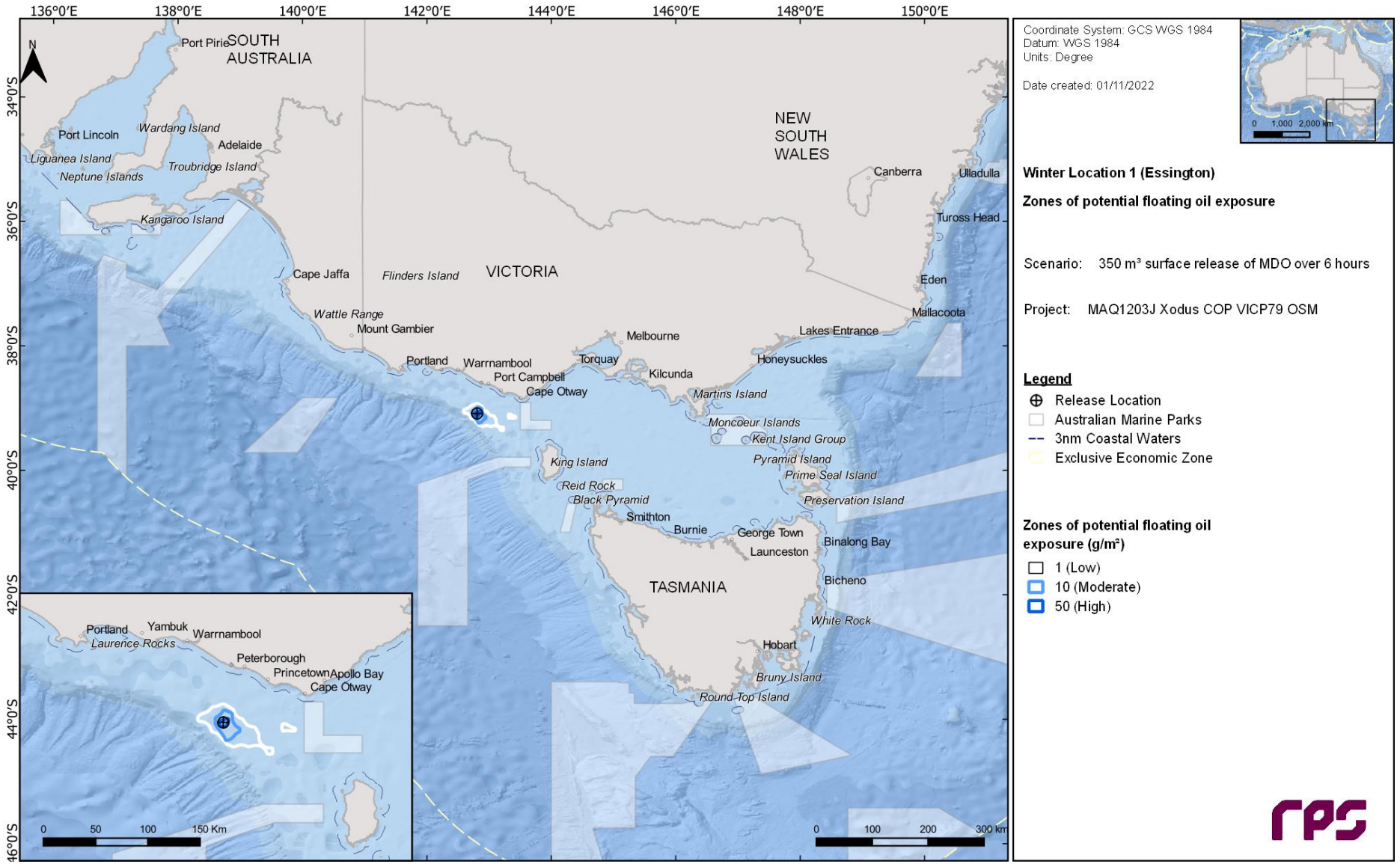


Figure 17.3 Zones of potential floating oil exposure from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

17.2.2 Shoreline Accumulation

Table 17.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 17.4 and Table 17.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 17.4 and Figure 17.5.

Table 17.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 1 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	17	29
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	4.83	5.00
Maximum volume of hydrocarbons ashore (m^3)	6.1	16.6
Average volume of hydrocarbons ashore (m^3)	2.3	3
Maximum length of the shoreline at **10 g/m^2** (km)	14	30
Average shoreline length (km) at **10 g/m^2** (km)	5.9	7
Maximum length of the shoreline at **100 g/m^2** (km)	1	3
Average shoreline length (km) at **100 g/m^2** (km)	1	1.5
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 17.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 1 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Colac Otway	10	1	-	4.83	9.38	-	21	101	1.1	3.3	4.8	1	-	8.6	1	-
Corangamite	1	-	-	5.46	-	-	38	38	0.9	0.9	1.9	-	-	1.9	-	-
Curtis Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French Island	1	-	-	18.25	-	-	17	17	0.5	0.5	1	-	-	1	-	-
Glenelg	2	-	-	10.46	-	-	24	91	0.2	3.2	4.3	-	-	6.7	-	-
Greater Geelong	-	-	-	-	-	-	-	-	< 0.1	0.2	-	-	-	-	-	-
King Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Laurence Rocks	1	-	-	9.54	-	-	30	30	0.6	0.6	2.9	-	-	2.9	-	-
Mornington Peninsula	-	-	-	-	-	-	-	-	< 0.1	0.4	-	-	-	-	-	-
Moyne	2	-	-	16.83	-	-	16	34	0.2	2.9	7.2	-	-	13.4	-	-
Norman Island	1	-	-	16.42	-	-	43	43	0.9	0.9	1.9	-	-	1.9	-	-
Phillip Island	1	1	-	9.67	11.54	-	121	121	5.3	5.3	11.5	1	-	11.5	1	-
Shellback Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
South Gippsland	2	-	-	17.83	-	-	12	14	0.2	1.4	3.3	-	-	3.8	-	-
Surf Coast	1	-	-	27.96	-	-	11	11	1.5	1.5	1	-	-	1	-	-
Warrnambool	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-

Table 17.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 1 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Colac Otway	4	-	-	9.04	-	-	17	72	0.3	3.9	5	-	-	4	-	-
Corangamite	2	-	-	5.38	-	-	23	57	0.2	3.8	7.6	-	-	2	-	-
Curtis Island	2	-	-	10.71	-	-	13	15	< 0.1	0.4	1.9	-	-	2	-	-
French Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Glenelg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greater Geelong	1	-	-	12.79	-	-	13	13	0.6	0.6	1	-	-	1	-	-
King Island	5	-	-	5	-	-	22	96	0.5	8.2	8.4	-	-	5	-	-
Laurence Rocks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mornington Peninsula	2	-	-	14.63	-	-	17	50	0.1	2.9	4.8	-	-	2	-	-
Moyne	2	2	-	5.75	8.5	-	44	119	0.4	6.9	12.4	1	-	2	2	-
Norman Island	7	1	-	8.67	9.71	-	44	342	0.4	10	1.6	2.9	-	7	1	-
Phillip Island	1	-	-	25.54	-	-	11	11	0.9	0.9	1	-	-	1	-	-
Shellback Island	1	-	-	26.42	-	-	10	10	0.1	0.1	1	-	-	1	-	-
South Gippsland	11	1	-	8.88	25.21	-	20	100	0.8	6.5	5	1	-	11	1	-
Surf Coast	2	-	-	17.63	-	-	11	12	< 0.1	1	1.9	-	-	2	-	-
Warrnambool	1	-	-	5.92	-	-	74	74	2.1	2.1	4.8	-	-	1	-	-

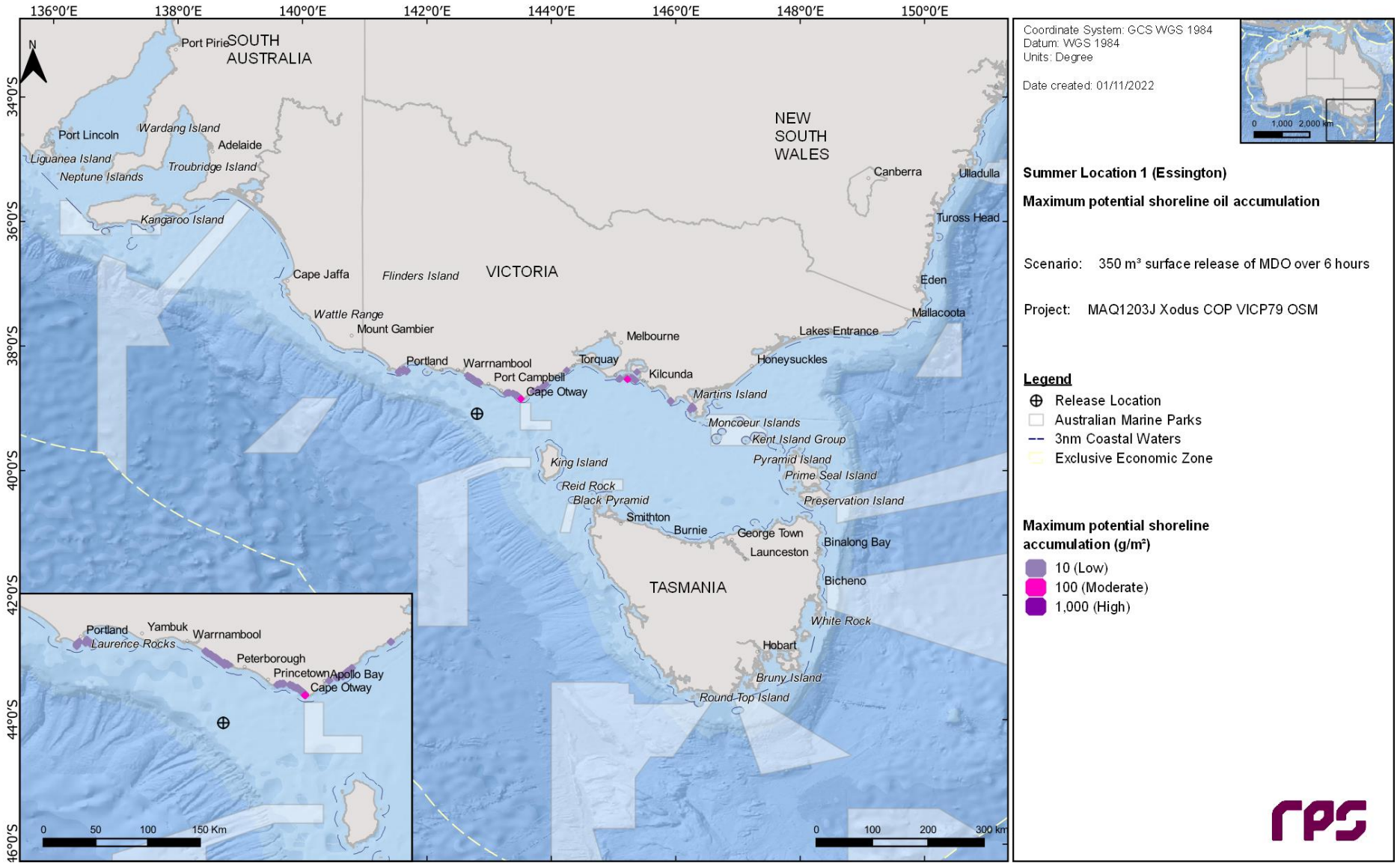


Figure 17.4 Maximum potential shoreline loading from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

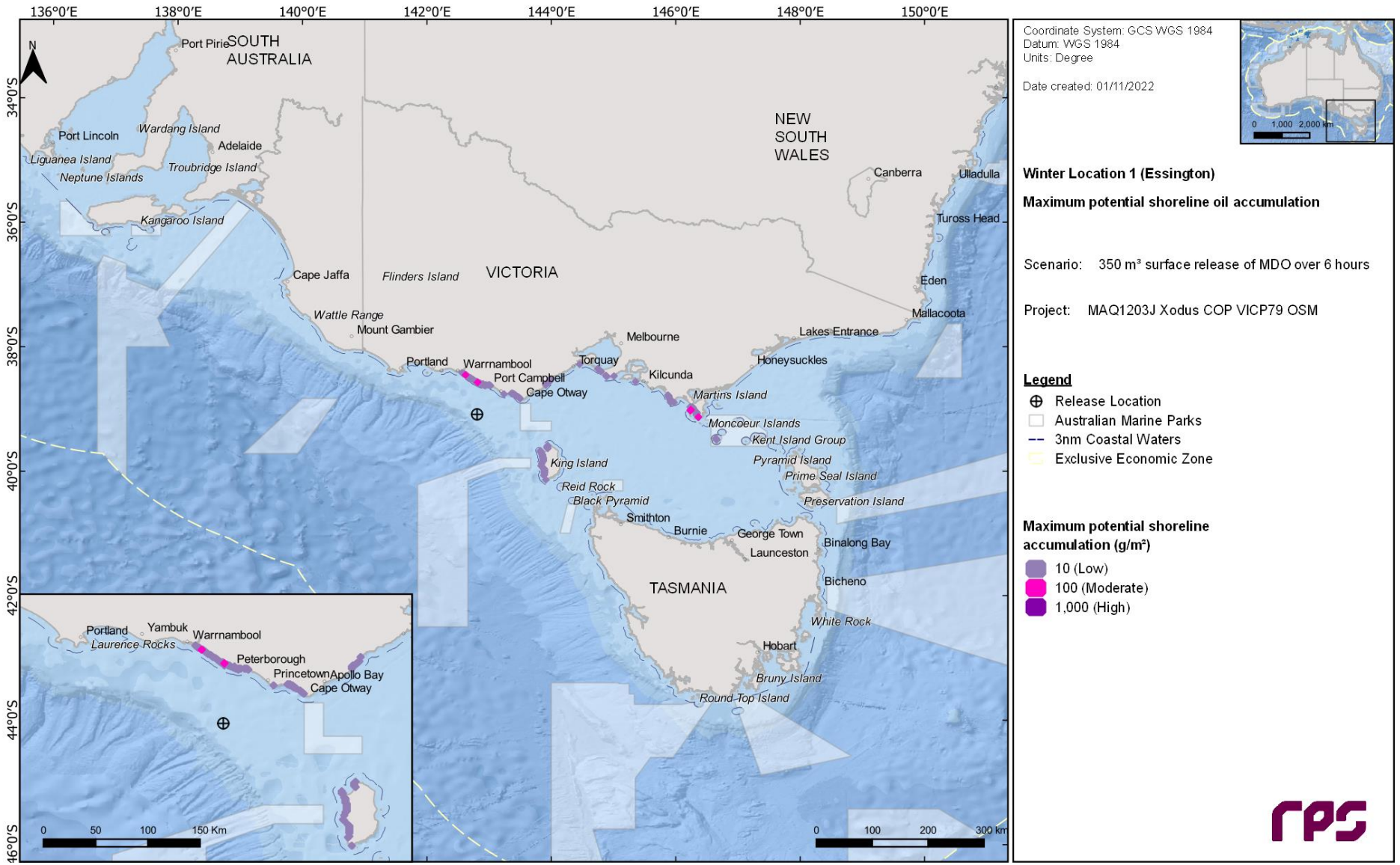


Figure 17.5 Maximum potential shoreline loading from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

17.2.3 In-water exposure

17.2.3.1 Dissolved Hydrocarbons

Table 17.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 17.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 17.6 and Figure 17.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 17.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	120	13	-
	Maximum distance (km) from release location (99th percentile)	84	13	-
	Direction	E	SW	-
Winter	Maximum distance (km) from release location	125	11	-
	Maximum distance (km) from release location (99th percentile)	99	11	-
	Direction	E	ESE	-

Table 17.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	18	1	-	-	18	2	-	-
IMCRA	Central Bass Strait	16	1	-	-	19	1	-	-
	Central Victoria	12	1	-	-	18	1	-	-
	Otway	113	50	7	-	94	52	7	-
KEF	West Tasmania Canyons	11	1	-	-	2	-	-	-

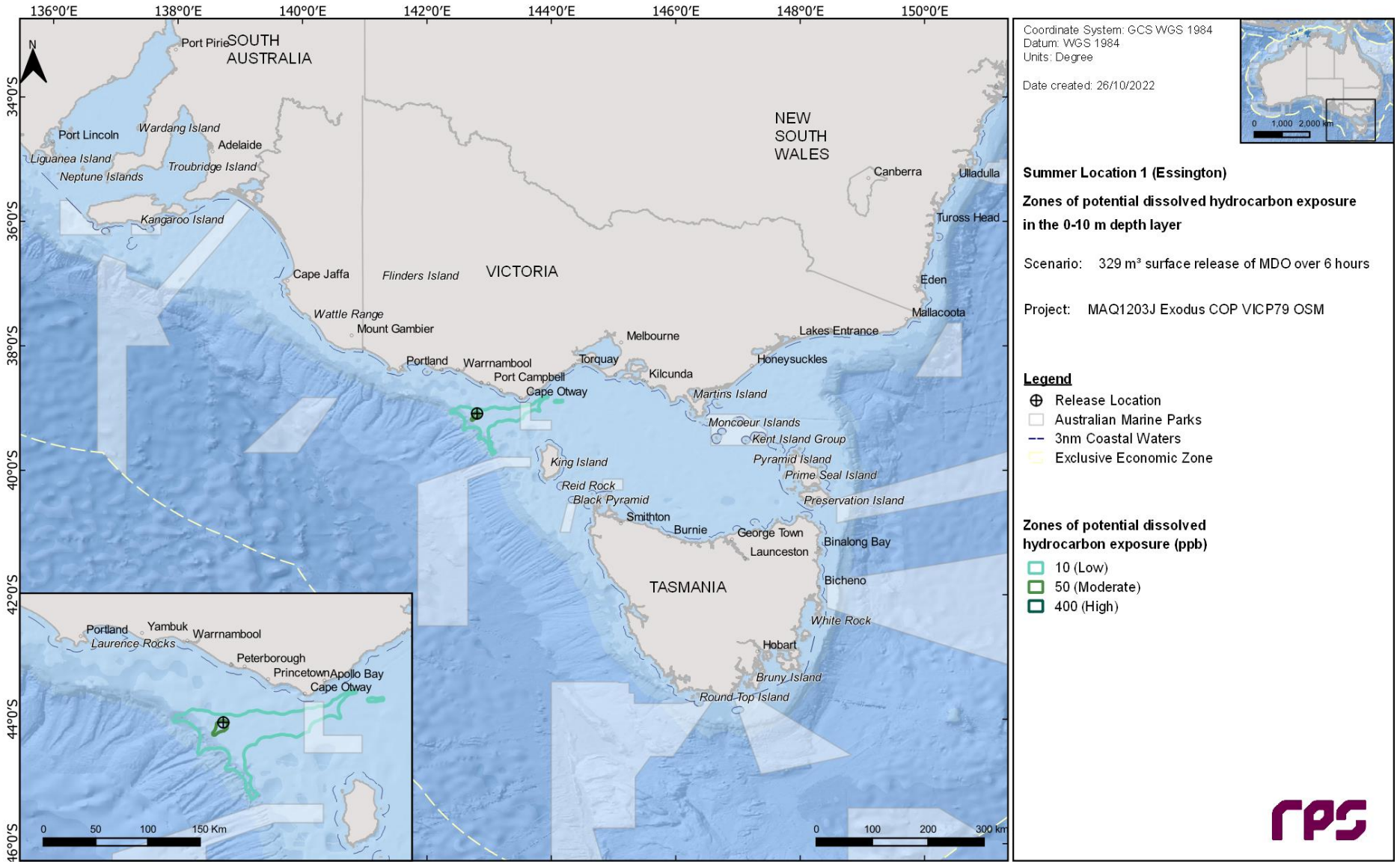


Figure 17.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

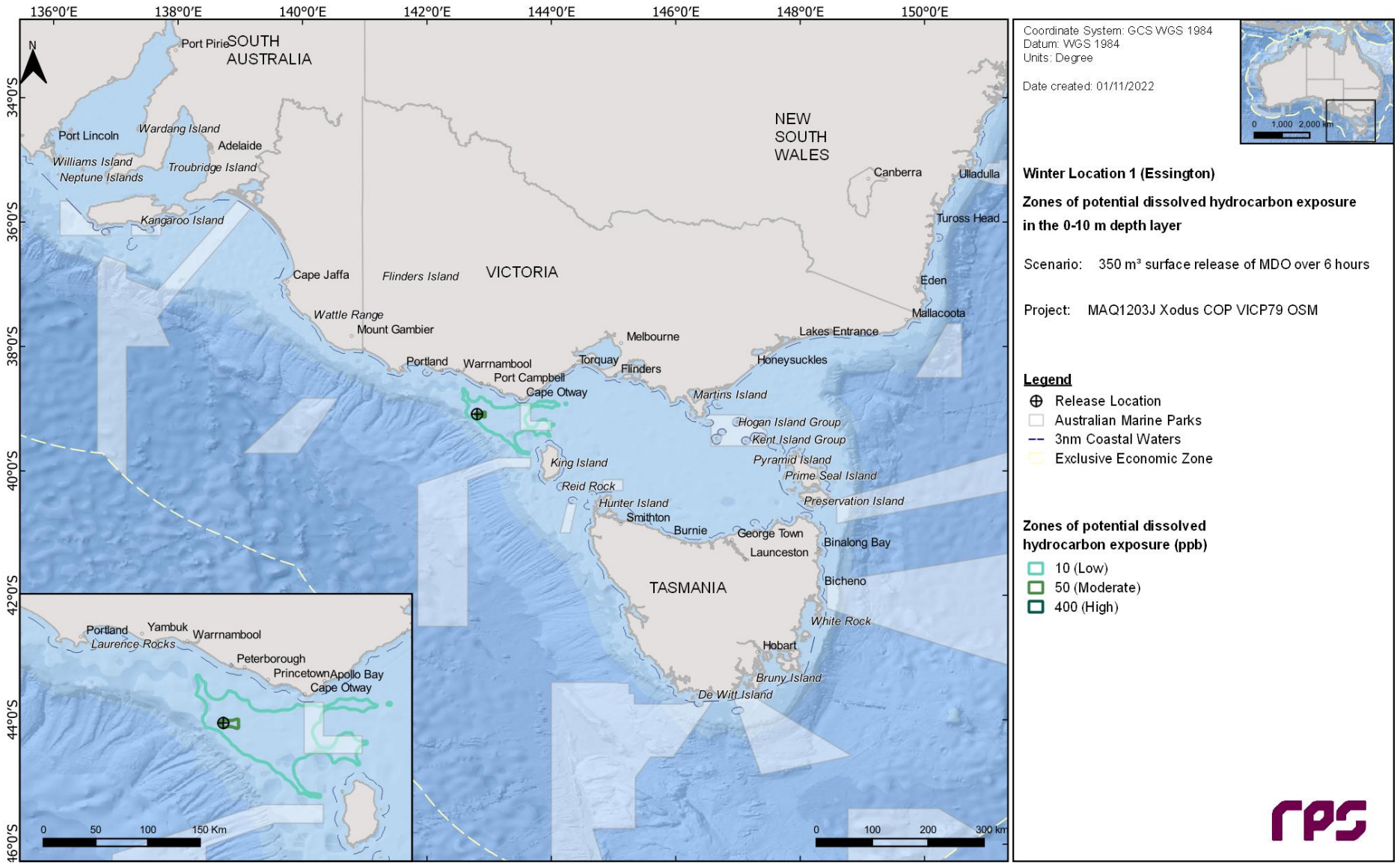


Figure 17.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

17.2.3.2 Entrained Hydrocarbons

Table 17.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 17.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 17.8 and Figure 17.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 17.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	681	149
	Maximum distance (km) from release location (99^{th} percentile)	344	126
	Direction	ENE	E
Winter	Maximum distance (km) from release location	700	158
	Maximum distance (km) from release location (99^{th} percentile)	678	140
	Direction	ENE	E

Table 17.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 1 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	412	28	8	348	39	11
	Beagle	17	2	-	33	9	-
	Franklin	12	4	-	8	-	-
	Zeehan	106	14	1	182	11	2
IBRA	Bridgewater	17	3	-	-	-	-
	Flinders	13	1	-	33	9	-
	Gippsland Plain	30	2	-	56	8	-
	Glenelg Plain	34	4	-	-	-	-
	King Island	27	3	-	71	8	-
	Otway Plain	184	14	1	93	7	-
	Otway Ranges	89	10	-	91	6	-
	Strzelecki Ranges	19	2	-	29	8	-
	Tasmanian West	1	-	-	11	1	-
	Warrnambool Plain	40	3	-	119	5	1
	Wilsons Promontory	29	2	-	76	9	-
IMCRA	Batemans Shelf	-	-	-	15	1	-
	Central Bass Strait	327	26	6	313	39	6
	Central Victoria	300	25	6	246	32	5
	Flinders	30	2	-	76	12	-
	Franklin	10	-	-	23	3	-
	Otway	9,295	97	90	9,662	100	94
	Twofold Shelf	14	1	-	25	8	-
	Victorian Embayments	26	1	-	23	1	-
KEF	Bonney Coast Upwelling	52	5	-	91	1	-
	Upwelling East of Eden	11	1	-	18	3	-
	West Tasmania Canyons	480	28	11	106	8	1
	Bonney Coast Upwelling	52	5	-	91	1	-
MNP	Bunurong	7	-	-	20	4	-
	Cape Howe	4	-	-	11	1	-
	Churchill Island	11	1	-	6	-	-
	Discovery Bay	13	1	-	-	-	-
	Point Addis	22	2	-	18	1	-
	Port Phillip Heads	14	1	-	15	1	-
	Twelve Apostles	32	2	-	92	4	-
	Wilsons Promontory	19	1	-	53	8	-
MS	Marengo Reefs	40	6	-	10	1	-
	Merri	12	1	-	1	-	-
	Mushroom Reef	18	1	-	9	-	-

	The Arches	23	1	-	27	2	-
Nearshore Waters	Anser Island	5	-	-	33	7	-
	Bass Coast	9	-	-	18	3	-
	Black Pyramid	11	2	-	8	-	-
	Colac Otway	184	14	1	93	7	-
	Corangamite	52	4	-	119	5	1
	Curtis Island	11	1	-	33	9	-
	Glenelg	34	4	-	-	-	-
	Glennie Group	18	1	-	50	7	-
	Greater Geelong	19	2	-	16	1	-
	Hogan Island Group	13	1	-	21	8	-
	Kanowna Island	4	-	-	30	9	-
	Kent Island Group	-	-	-	19	1	-
	King Island	27	3	-	80	8	-
	Lady Julia Percy Island	17	3	-	-	-	-
	Laurence Rocks	31	4	-	-	-	-
	Moncoeur Islands	13	1	-	33	7	-
	Mornington Peninsula	21	1	-	27	2	-
	Moyne	36	3	-	112	4	1
	Mud Island	1	-	-	10	1	-
	Norman Island	29	1	-	76	6	-
	Phillip Island	30	1	-	13	1	-
	Reid Rock	15	1	-	18	2	-
	Rodondo Island	11	1	-	29	7	-
	Shellback Island	26	2	-	52	5	-
	Skull Rock	4	-	-	28	7	-
	South Gippsland	30	2	-	70	8	-
	Surf Coast	26	3	-	18	4	-
	Warrnambool	20	2	-	56	1	-
	West Coast	1	-	-	11	1	-
NP	Kent Group	-	-	-	17	3	-
NPS4	Bunurong Marine Park	7	-	-	16	2	-
	Wilsons Promontory Marine Park	26	2	-	59	6	-
	Wilsons Promontory Marine Reserve	17	1	-	47	6	-
Ramsar	Port Phillip Bay (Western Shoreline) and Bellarine Peninsula	14	1	-	8	-	-
	Western Port	11	1	-	6	-	-
RSB	Bell Reef	15	2	-	15	2	-
	Bravenes Rock	121	9	1	80	7	-
	Cody Bank	19	3	-	23	4	-
	Cutter Rock	14	1	-	30	9	-
	New Zealand Star Bank	7	-	-	17	1	-
State Waters	New South Wales	4	-	-	11	1	-
	Tasmania	49	4	-	124	16	1
	Victoria	203	18	2	142	14	1

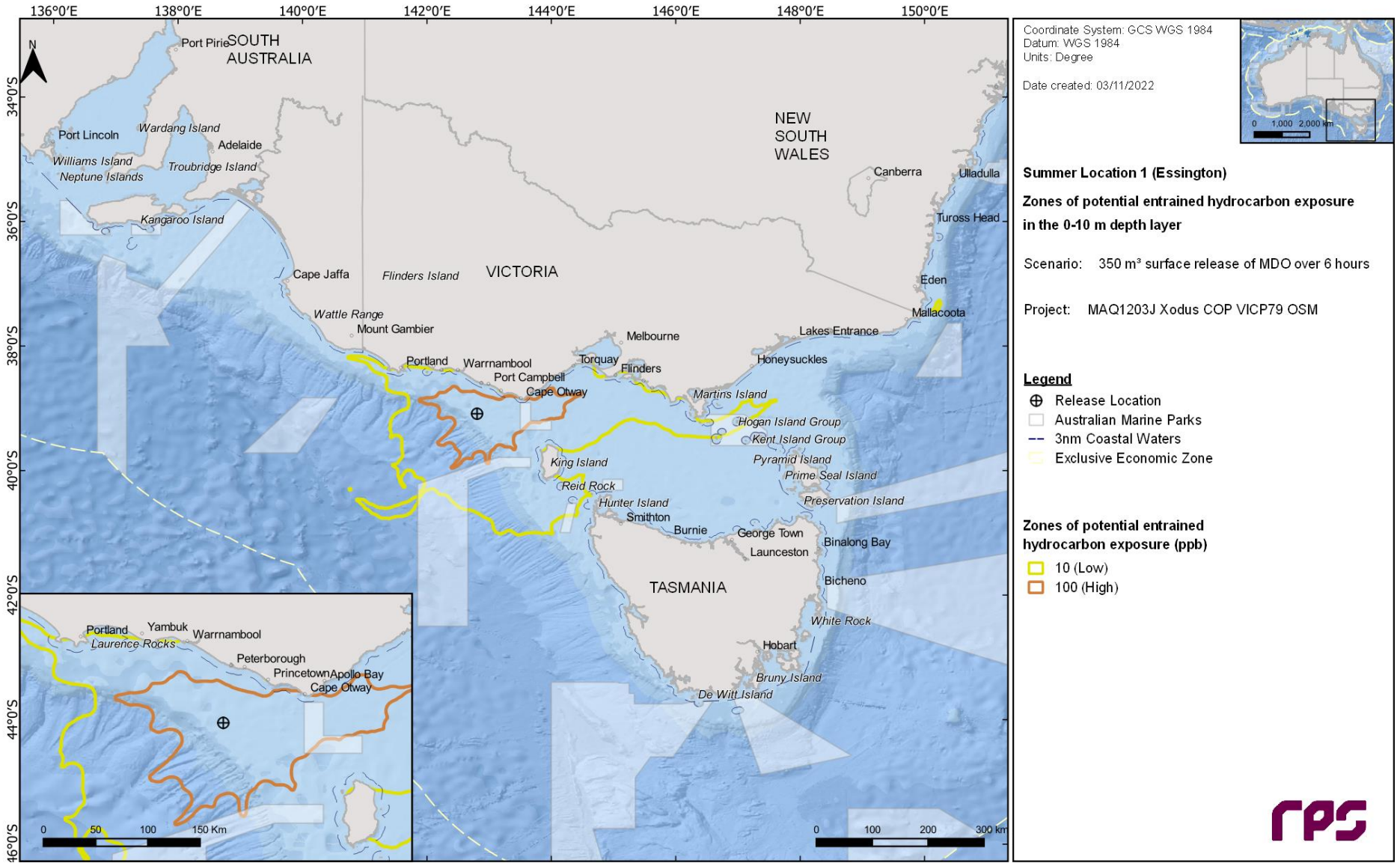


Figure 17.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during summer conditions. The results were calculated from 100 spill simulations.

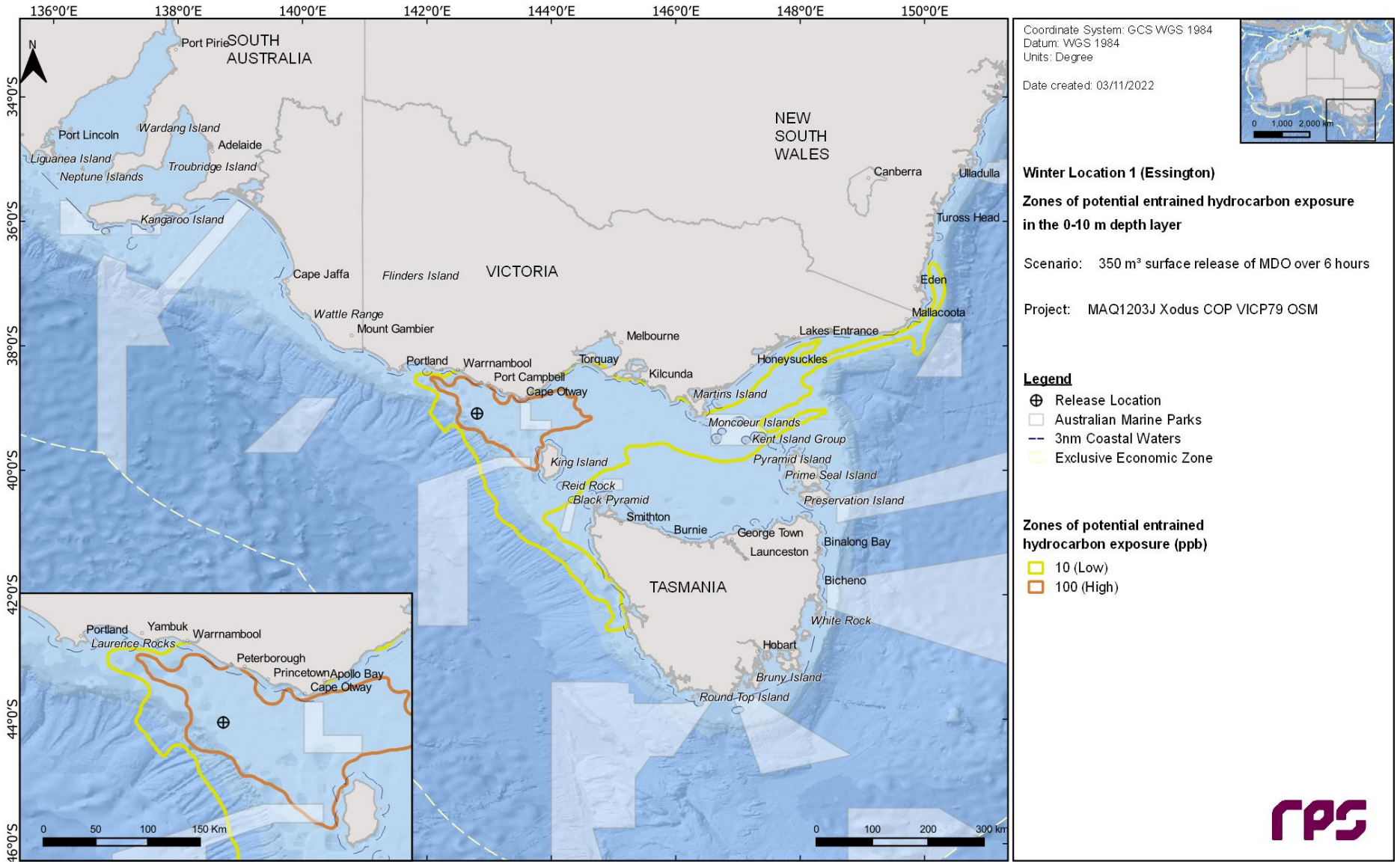


Figure 17.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 1 during winter conditions. The results were calculated from 100 spill simulations.

17.3 Deterministic Analysis

17.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 1 pm 8th July 2019.

Figure 17.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 8.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 17.11 and Figure 17.12, respectively.

Figure 17.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 164 m^3 (~47%) was lost to the atmosphere through evaporation. Approximately, 115 m^3 (~33%) of the released volume decayed, while approximately 60 m^3 (~17%) was predicted to remain within the water column and approximately 14 m^3 (~4%) was present on the shorelines.

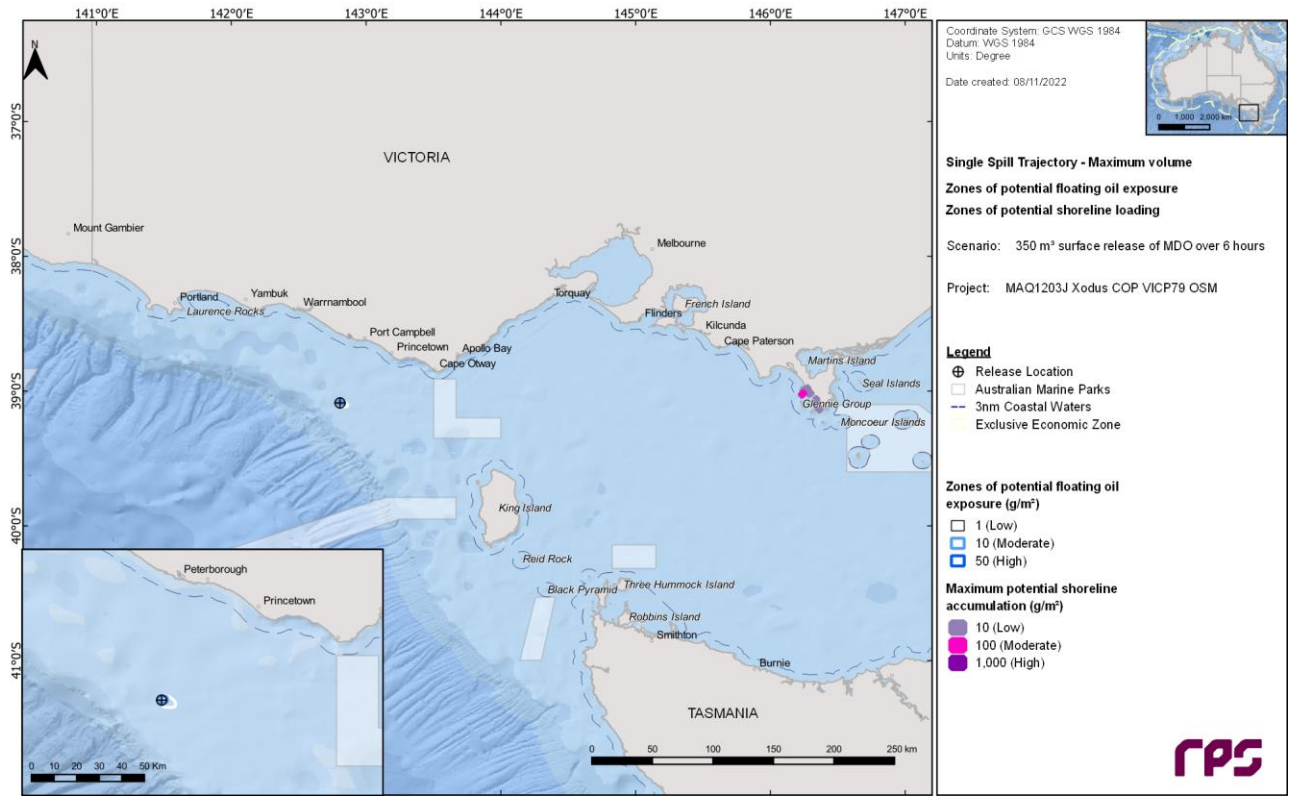


Figure 17.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

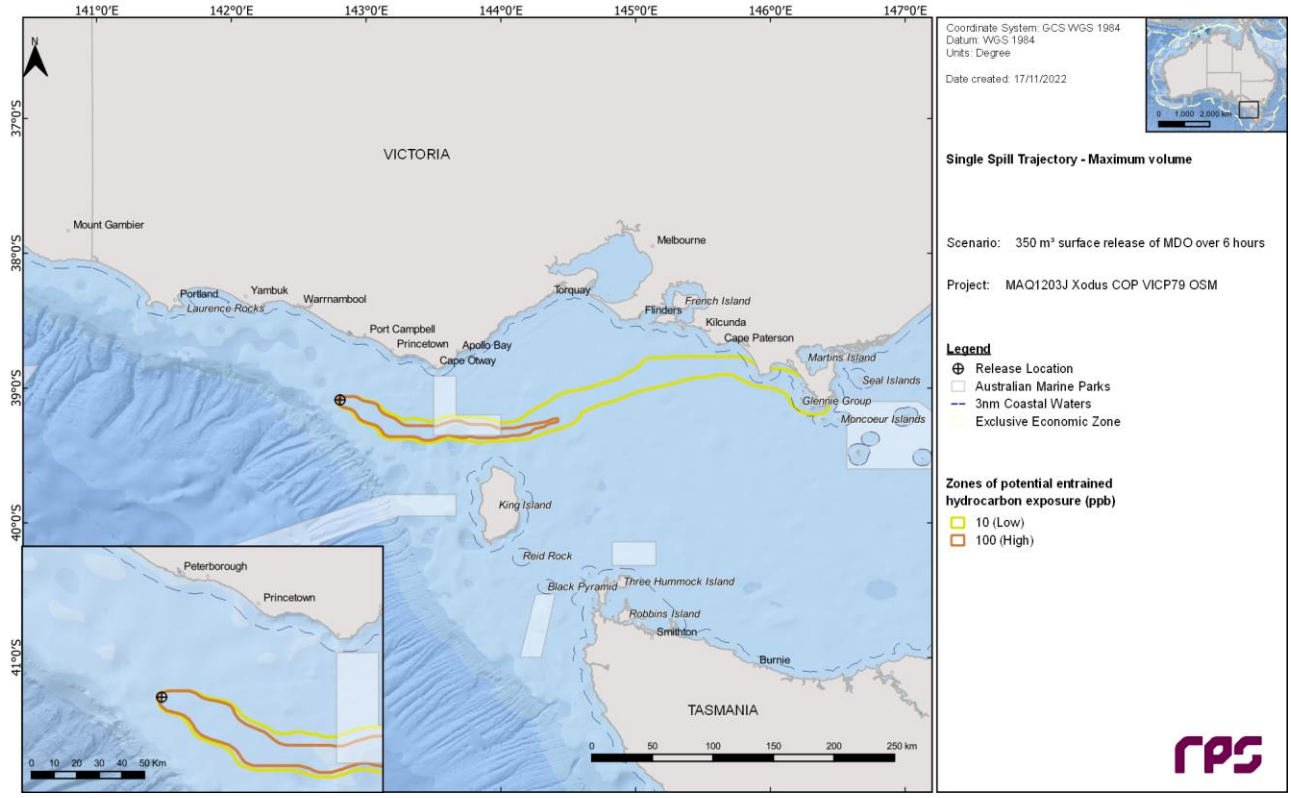


Figure 17.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

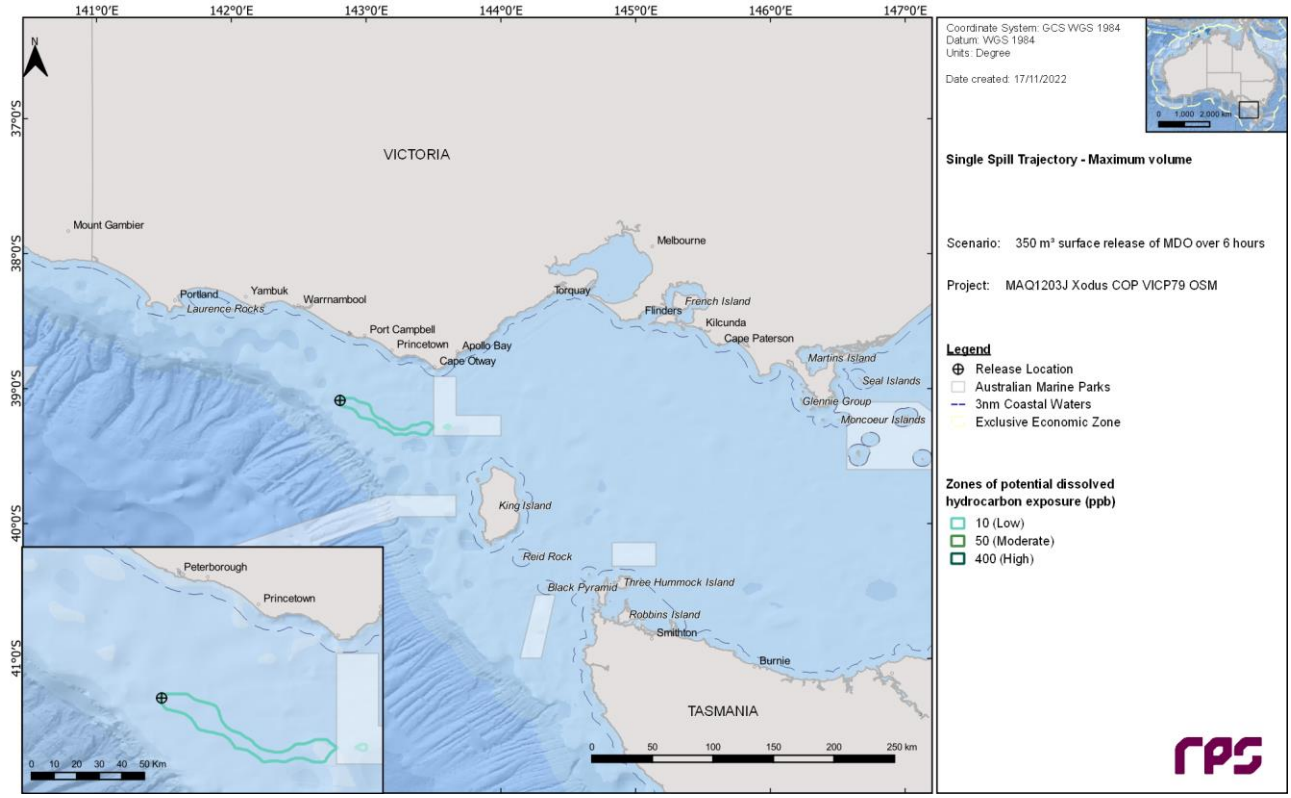


Figure 17.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

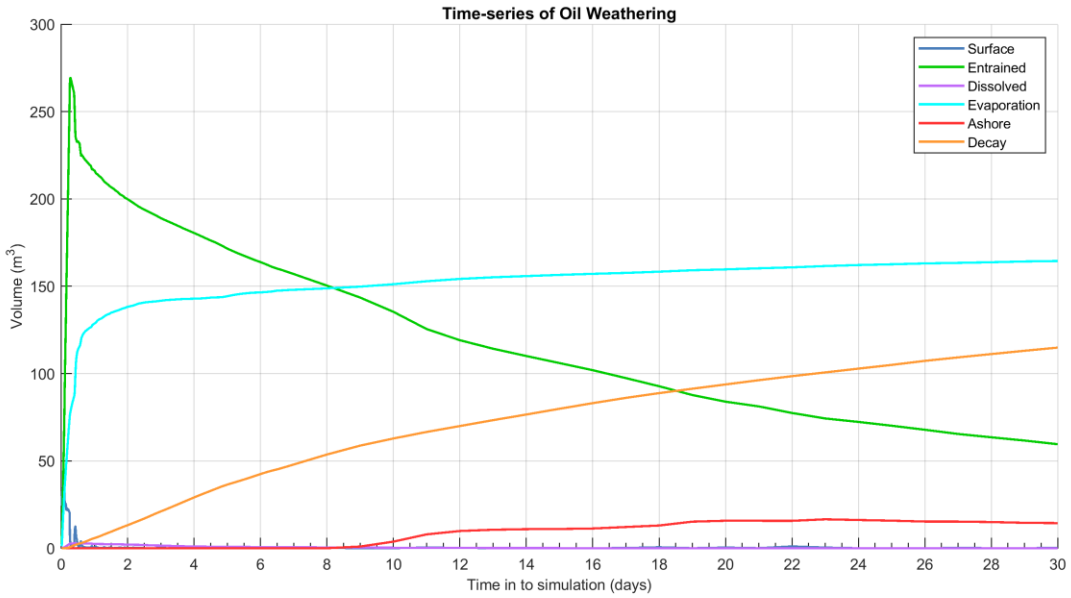


Figure 17.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 1.

17.3.2 Largest Area of Floating Hydrocarbon Exposure

The simulation that resulted in the largest swept area of floating hydrocarbon exposure at or above the low exposure threshold of 201.6 km^2 was identified as run number 38 and commenced during winter conditions, 6 pm 5th August 2011.

Figure 17.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). No shoreline accumulation was predicted during the simulation.

The extent of the predicted entrained hydrocarbon exposure zones in the 0–10 m depth layer over the entire simulation period of 30 days is presented in Figure 17.15. No zones of dissolved hydrocarbon exposure was predicted for the simulation.

Figure 17.16 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 176 m^3 (~50%) was lost to the atmosphere through evaporation. Approximately, 100 m^3 (~28%) of the released volume decayed, while approximately 77 m^3 (~22%) was predicted to remain within the water column.

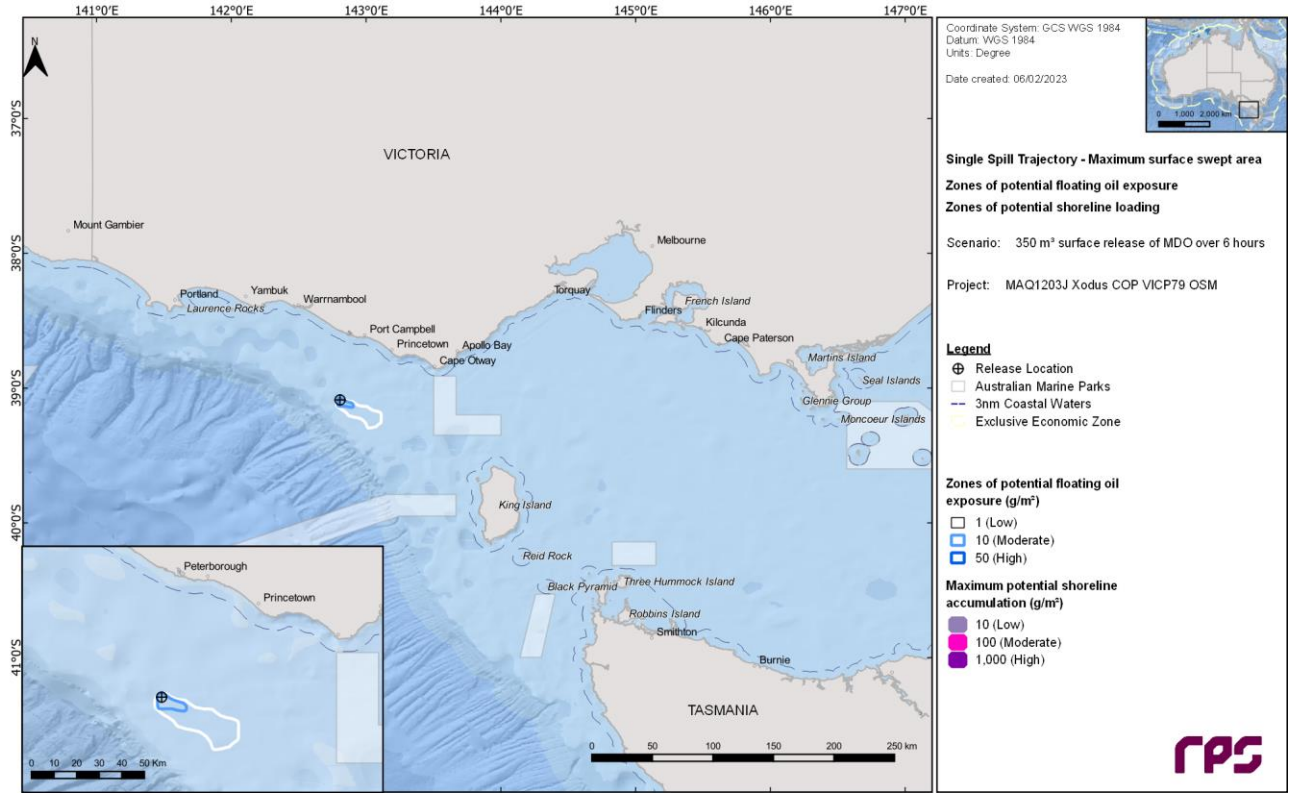


Figure 17.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest area of floating hydrocarbon exposure from a vessel collision at Location 1.

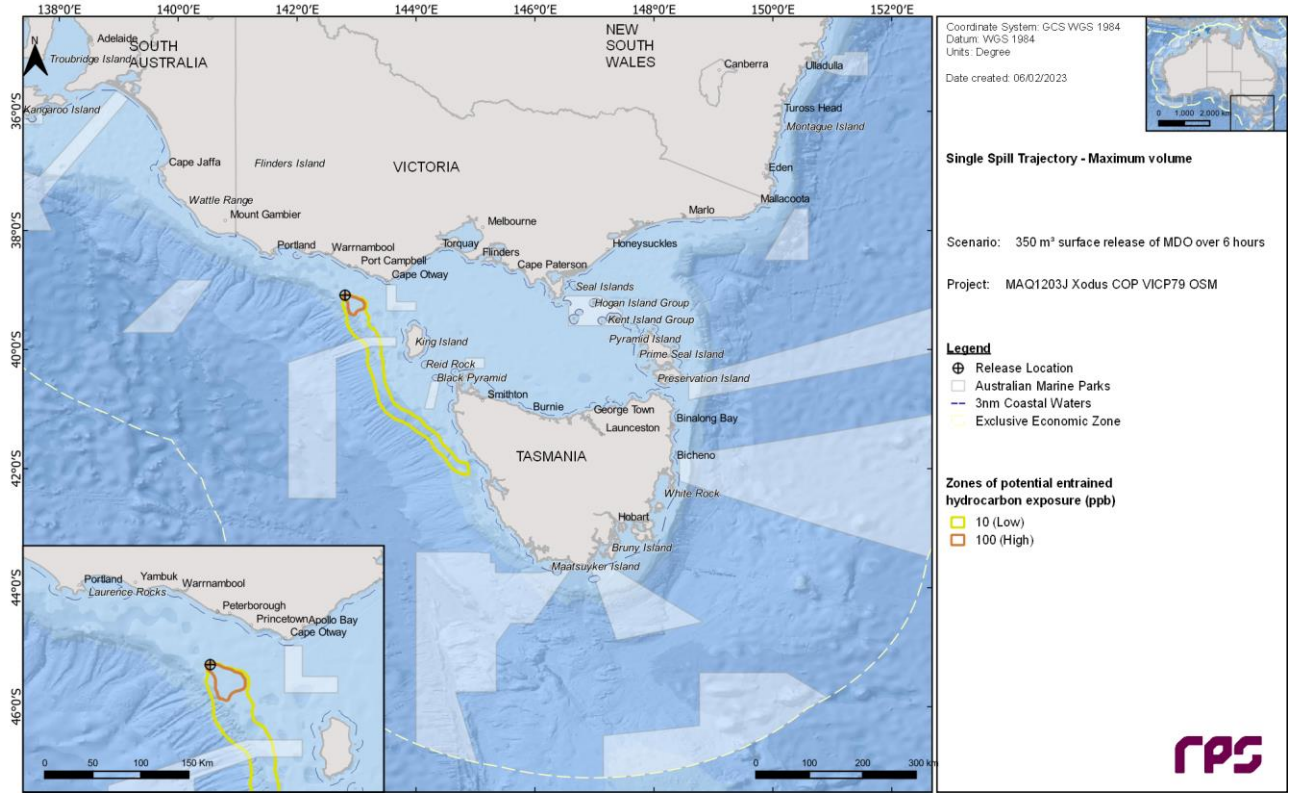


Figure 17.15 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest area of floating hydrocarbon exposure from a vessel collision at Location 1.

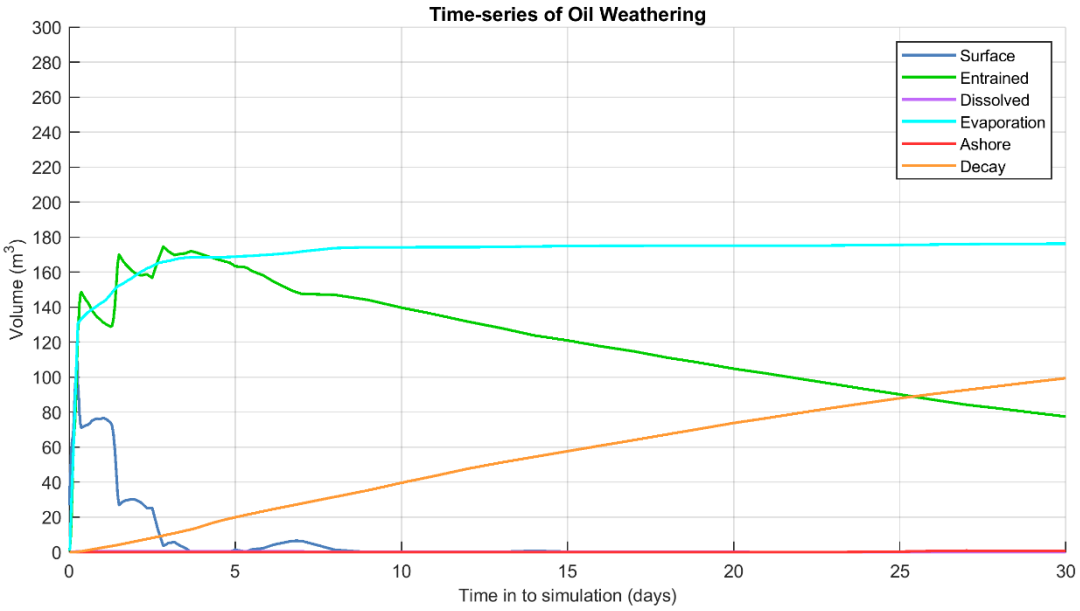


Figure 17.16 Predicted weathering and fates for the simulation that led to the largest area of floating hydrocarbons exposure from a vessel collision at Location 1.

18 LOCATION 2 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 2. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 18.1 presents the EMBA, Section 18.2 shows the seasonal (or stochastic) results, while Section 18.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

18.1 EMBA

Figure 18.1 shows the EMBA for Location 2. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

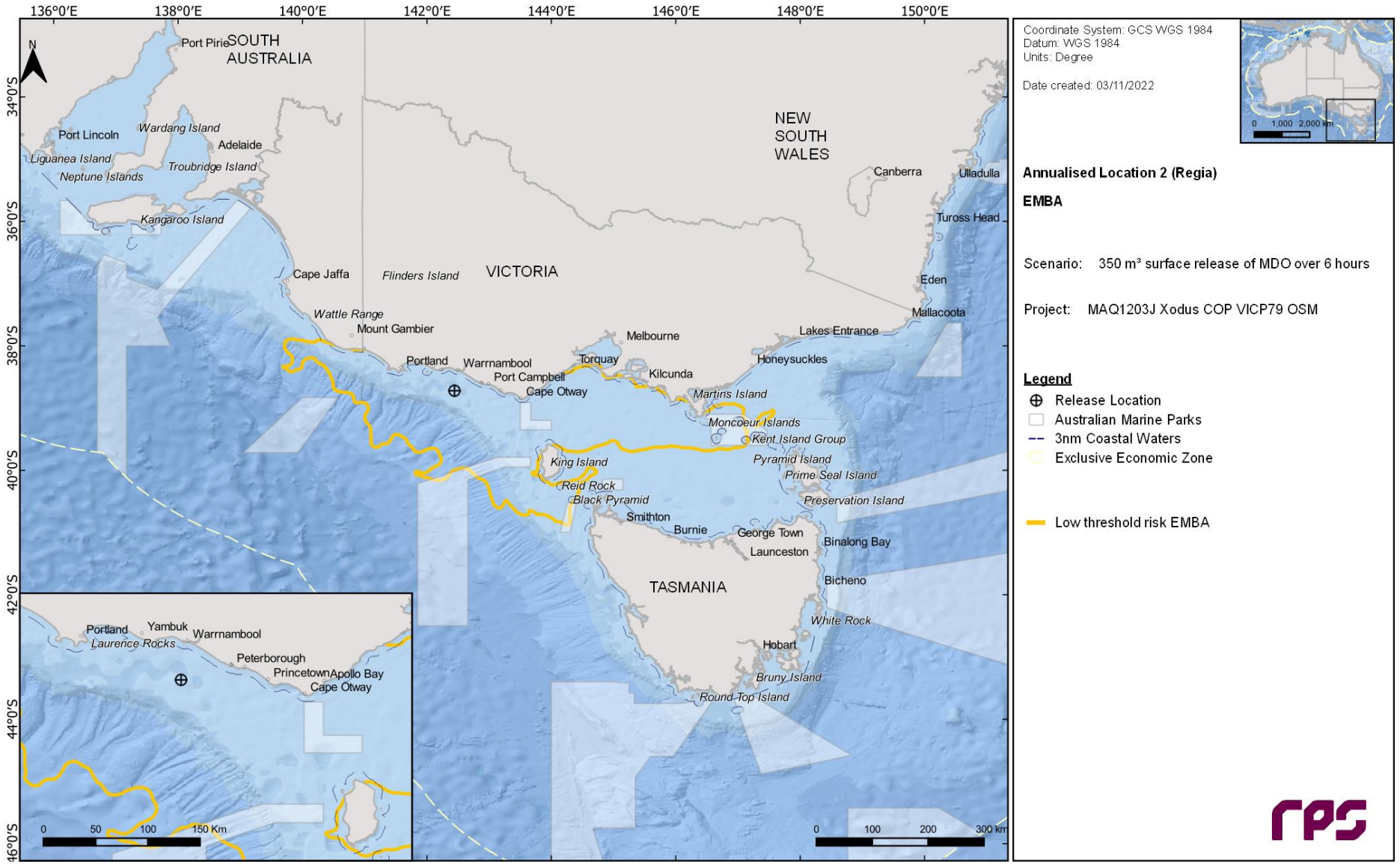


Figure 18.1 Predicted low threshold EMBA from a vessel collision at Location 2. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

18.2 Stochastic Analysis

18.2.1 Floating Oil Exposure

Table 18.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 18.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 18.2 to Figure 18.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 188.8 km^2 and 154.1 km^2, respectively.

Table 18.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	23.2	21.2	5.5
	Maximum distance (km) from release location (99^{th} percentile)	22.6	20.8	5.5
	Direction	ENE	WSW	NE
Winter	Maximum distance (km) from release location	59.9	20.1	3.4
	Maximum distance (km) from release location (99^{th} percentile)	28.2	18.9	3.4
	Direction	E	ESE	SW

Table 18.2 **Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 2 for each season. Results were calculated from 100 spill simulations per season.**

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
IBRA	Warrnambool Plain	1	-	-	-	2.92	-	-	-	3	1	-	-
IMCRA	Otway	100	100	100	26	0.04	0.04	0.04	0.04	100	100	100	23
MNP	Twelve Apostles	-	-	-	-	-	-	-	-	3	2	-	-
State Waters	Victoria	2	-	-	-	1.96	-	-	-	5	2	-	-

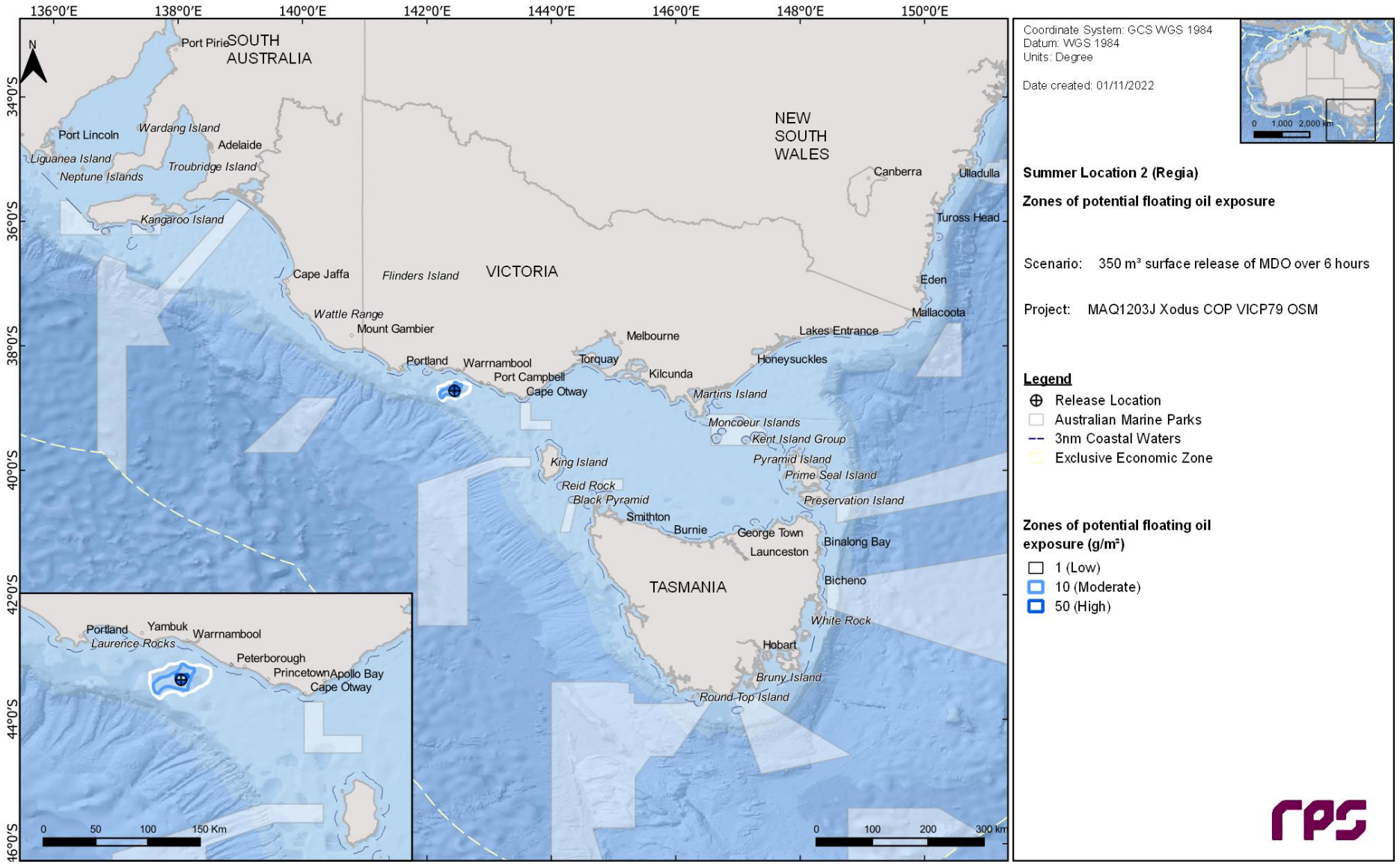


Figure 18.2 Zones of potential floating oil exposure from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

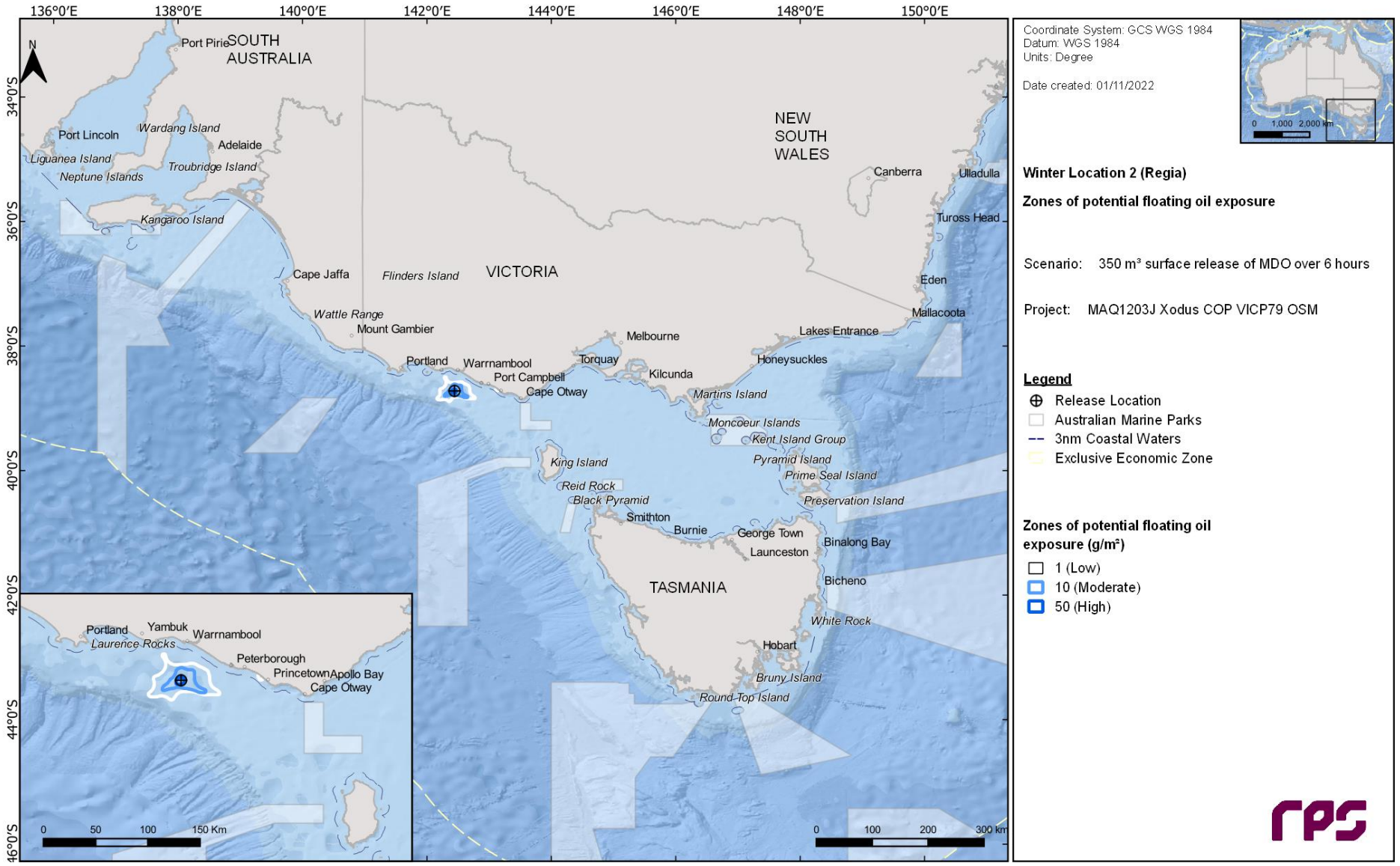


Figure 18.3 Zones of potential floating oil exposure from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

18.2.2 Shoreline Accumulation

Table 18.3Table 17.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 18.4 to Table 18.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 18.4 and Figure 18.5.

Table 18.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 2 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	45	41
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	2.88	1.83
Maximum volume of hydrocarbons ashore (m^3)	20.3	28.9
Average volume of hydrocarbons ashore (m^3)	4.4	5.4
Maximum length of the shoreline at **10 g/m^2** (km)	22	32
Average shoreline length (km) at **10 g/m^2** (km)	9	10.3
Maximum length of the shoreline at **100 g/m^2** (km)	5	5
Average shoreline length (km) at **100 g/m^2** (km)	2.7	3
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 18.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 2 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Bass Coast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colac Otway	14	2	-	6	9.63	-	24	177	1	10.4	7.9	1.4	-	21	1.9	-
Corangamite	20	4	-	2.88	3.92	-	42	464	1.9	19.2	6.5	3.6	-	15.3	4.8	-
East Gippsland	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Glenelg	3	-	-	7.17	-	-	17	22	< 0.1	1.9	1.3	-	-	1.9	-	-
Glennie Group	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Greater Geelong	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kanowna Island	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
King Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lady Julia Percy Island	3	-	-	6.17	-	-	20	28	< 0.1	0.3	1	-	-	1	-	-
Moncoeur Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moyne	19	4	-	2.96	4.13	-	35	233	1.5	11.5	6.1	2.2	-	16.3	3.8	-
Norman Island	-	-	-	-	-	-	-	-	< 0.1	0.2	-	-	-	-	-	-
Phillip Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Rodondo Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shellback Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Skull Rock	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
South Gippsland	2	-	-	25.54	-	-	15	20	< 0.1	1.2	3.8	-	-	3.8	-	-
Warrnambool	5	-	-	7.33	-	-	16	30	0.1	1.5	4	-	-	5.7	-	-

Table 18.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 2 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	1	-	-	12.38	-	-	54	54	0.6	0.6	1	-	-	1	-	1
Bass Coast	1	-	-	27.13	-	-	12	12	0.3	0.3	1	-	-	1	-	1
Colac Otway	25	3	-	3.04	4.21	-	32	563	1.7	10.6	6	1.9	-	12.4	2.9	25
Corangamite	18	7	-	2.38	3.54	-	44	318	2.4	14.1	8.7	2.7	-	20.1	3.8	18
East Gippsland	1	-	-	27.79	-	-	14	14	0.3	0.3	1	-	-	1	-	1
Glenelg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glennie Group	3	1	-	9.08	11.46	-	38	190	0.2	6.9	4.1	1.9	-	6.7	1.9	3
Greater Geelong	1	-	-	21.67	-	-	15	15	1.0	1.0	1	-	-	1	-	1
Kanowna Island	2	-	-	12.67	-	-	17	18	< 0.1	0.5	1.4	-	-	1.9	-	2
King Island	1	-	-	17.04	-	-	18	18	1.0	1.0	1	-	-	1	-	1
Lady Julia Percy Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moncoeur Islands	2	-	-	13.17	-	-	13	13	< 0.1	0.3	1	-	-	1	-	2
Moyne	4	-	-	2.83	-	-	25	44	0.2	2.8	6.2	-	-	9.6	-	4
Norman Island	3	1	-	9.46	11.33	-	49	152	0.2	4.5	3.2	1.9	-	3.8	1.9	3
Phillip Island	1	-	-	13.92	-	-	17	22	0.6	0.6	2.9	-	-	2.9	-	1
Rodondo Island	3	-	-	11.5	-	-	25	38	< 0.1	0.4	1	-	-	1	-	3
Shellback Island	2	-	-	10.83	-	-	25	37	< 0.1	0.4	1	-	-	1	-	2
Skull Rock	2	-	-	12.67	-	-	17	18	< 0.1	0.4	1.4	-	-	1.9	-	2
South Gippsland	3	1	-	9.54	11.54	-	31	116	0.2	3.1	4.5	1	-	5.7	1	3
Warrnambool	2	1	-	1.83	2.46	-	66	612	0.7	28	11.5	4.8	-	19.1	4.8	2

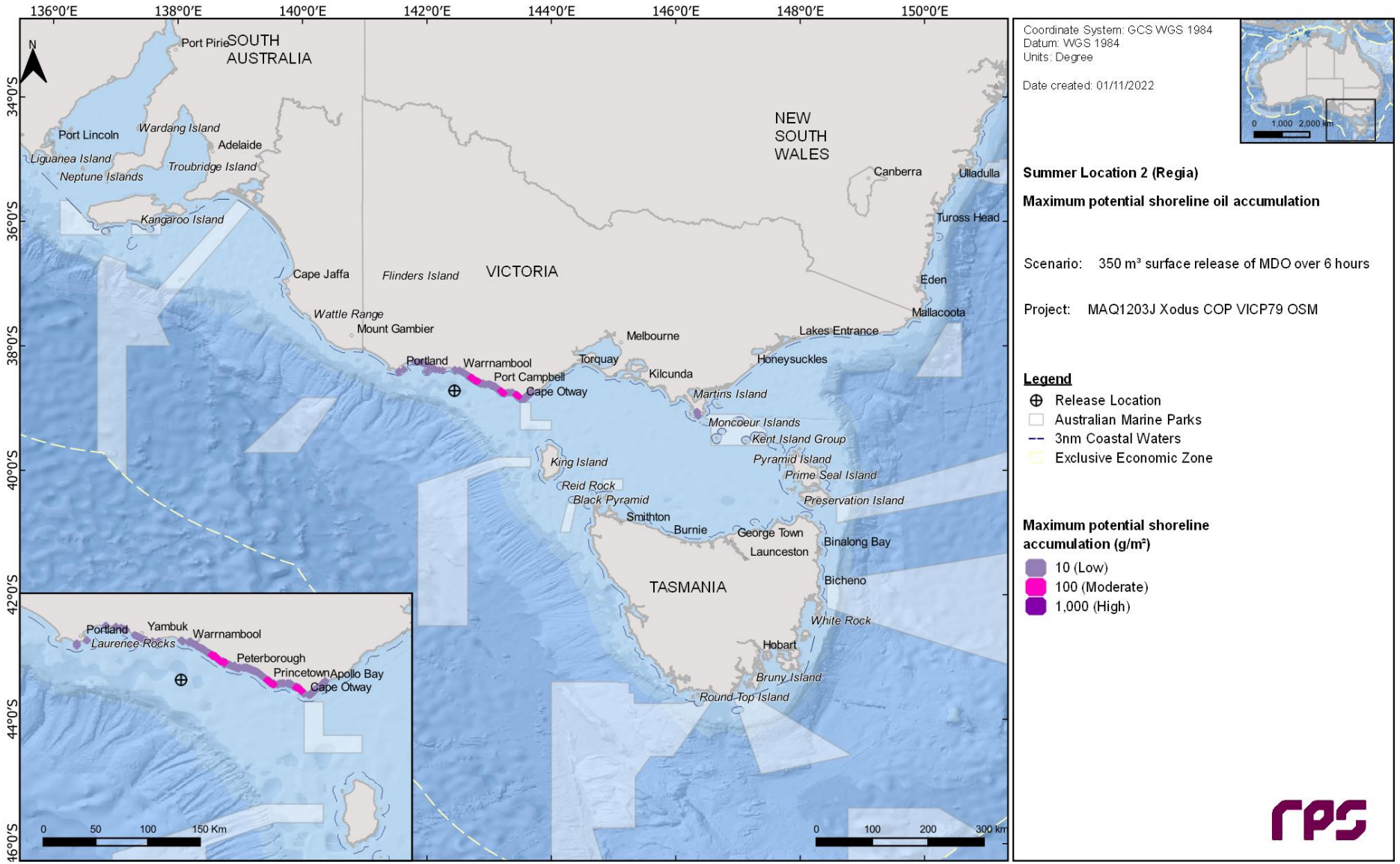


Figure 18.4 Maximum potential shoreline loading from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

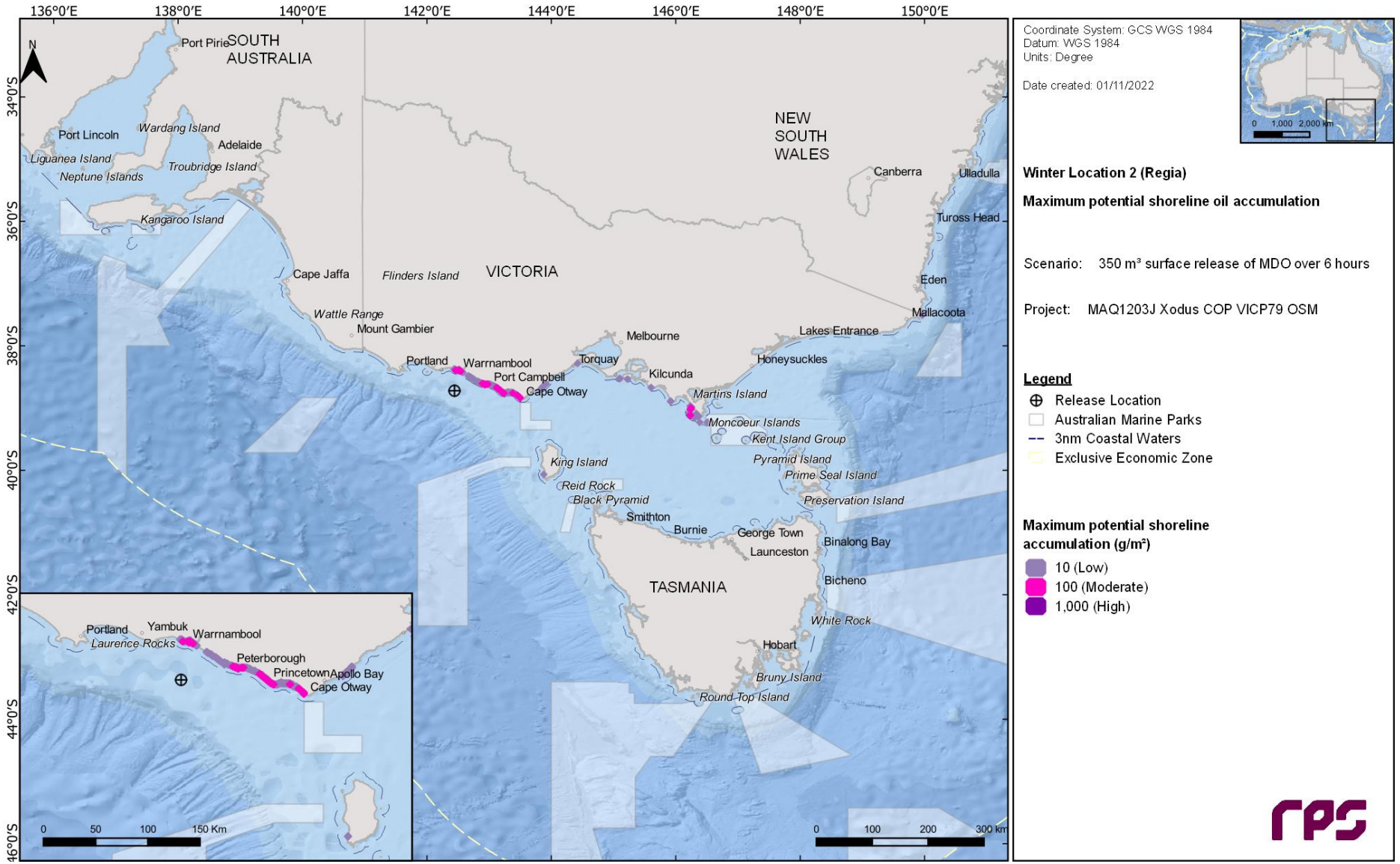


Figure 18.5 Maximum potential shoreline loading from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

18.2.3 In-water exposure

18.2.3.1 Dissolved Hydrocarbons

Table 18.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 18.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 18.6 and Figure 18.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 18.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	97	6	-
	Maximum distance (km) from release location (99th percentile)	55	6	-
	Direction	W	ENE	-
Winter	Maximum distance (km) from release location	159	6	-
	Maximum distance (km) from release location (99th percentile)	131	6	-
	Direction	E	NNW	-

Table 18.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
AMP	Apollo	4	-	-	-	19	1	-	-
IBRA	Otway Ranges	7	-	-	-	14	1	-	-
IMCRA	Central Bass Strait	3	-	-	-	17	1	-	-
	Otway	82	32	4	-	98	58	7	-
MNP	Twelve Apostles	10	-	-	-	15	1	-	-
State Waters	Victoria	12	1	-	-	19	1	-	-

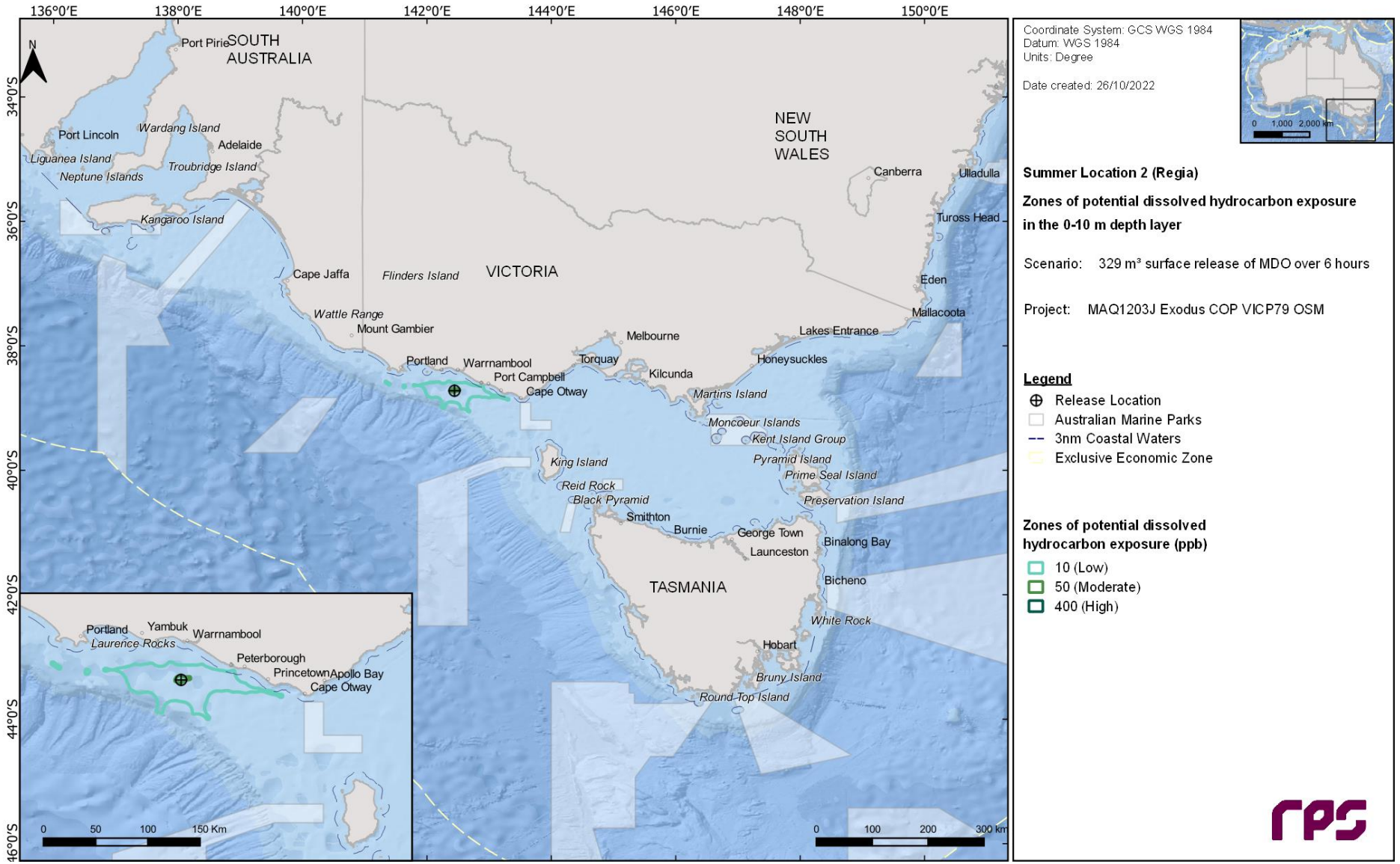


Figure 18.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

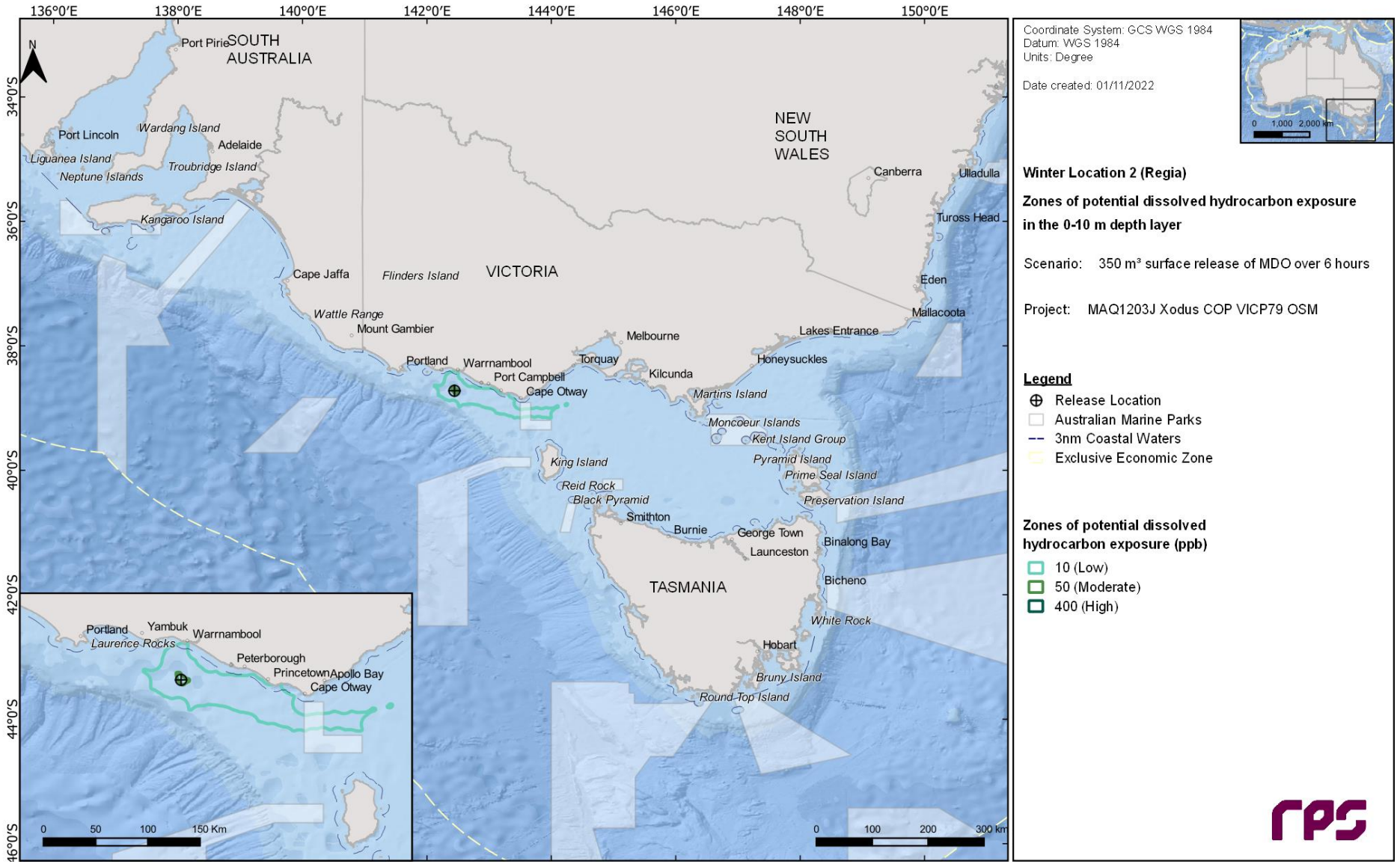


Figure 18.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

18.2.3.2 Entrained Hydrocarbons

Table 18.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 18.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 18.8 and Figure 18.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 18.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	342	163
	Maximum distance (km) from release location (99^{th} percentile)	286	150
	Direction	E	ESE
Winter	Maximum distance (km) from release location	446	185
	Maximum distance (km) from release location (99^{th} percentile)	397	176
	Direction	E	E

Table 18.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 2 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	287	20	1	270	56	6
	Beagle	3	-	-	21	10	-
	Franklin	13	1	-	9	-	-
	Zeehan	55	3	-	32	4	-
IBRA	Bridgewater	53	5	-	6	-	-
	Flinders	2	-	-	15	2	-
	Gippsland Plain	16	2	-	33	3	-
	Glenelg Plain	40	10	-	10	1	-
	King Island	11	1	-	17	3	-
	Otway Plain	163	27	3	259	47	4
	Otway Ranges	133	29	4	272	40	5
	Strzelecki Ranges	8	-	-	24	1	-
	Warrnambool Plain	307	31	7	513	39	8
	Wilsons Promontory	19	2	-	56	10	-
IMCRA	Central Bass Strait	255	12	1	257	49	6
	Central Victoria	275	14	1	236	52	7
	Flinders	20	2	-	56	11	-
	Otway	6,732	98	85	8,310	95	90
	Twofold Shelf	2	-	-	15	3	-
	Victorian Embayments	5	-	-	13	1	-
KEF	Bonney Coast Upwelling	212	22	4	126	5	1
	West Tasmania Canyons	123	8	2	55	4	-
MNP	Bunurong	12	1	-	8	-	-
	Discovery Bay	53	5	-	3	-	-
	Point Addis	11	1	-	12	2	-
	Twelve Apostles	404	34	11	481	39	8
	Wilsons Promontory	18	2	-	56	9	-
MP	Lower South East	15	3	-	-	-	-
MS	Marengo Reefs	45	5	-	46	13	-
	Merri	49	8	-	431	5	1
	The Arches	102	23	1	163	14	2
Nearshore Waters	Anser Island	12	2	-	37	7	-
	Bass Coast	11	1	-	8	-	-
	Black Pyramid	12	1	-	8	-	-
	Colac Otway	163	27	3	259	47	4
	Corangamite	305	30	6	368	39	8
	Curtis Island	2	-	-	15	2	-
	Glenelg	53	9	-	10	1	-

	Glennie Group	18	2	-	56	8	-
	Grant	17	3	-	-	-	-
	Hogan Island Group	2	-	-	12	2	-
	Kanowna Island	11	1	-	38	8	-
	Kent Island Group	-	-	-	10	1	-
	King Island	9	-	-	17	3	-
	Lady Julia Percy Island	122	13	1	4	-	-
	Laurence Rocks	37	10	-	8	-	-
	Moncoeur Islands	1	-	-	24	10	-
	Mornington Peninsula	10	-	-	12	2	-
	Moyne	307	27	4	285	19	2
	Norman Island	19	2	-	36	4	-
	Phillip Island	2	-	-	18	1	-
	Reid Rock	8	-	-	11	1	-
	Rodondo Island	2	-	-	26	10	-
	Shellback Island	15	2	-	35	3	-
	Skull Rock	9	-	-	38	8	-
	South Gippsland	18	2	-	35	6	-
	Surf Coast	14	1	-	23	4	-
	Warrnambool	81	11	-	513	6	1
NP	Kent Group	83	30	-	91	77	-
NPS4	Bunurong Marine Park	11	1	-	8	-	-
	Wilsons Promontory Marine Park	17	2	-	33	4	-
	Wilsons Promontory Marine Reserve	17	2	-	55	7	-
RSB	Bell Reef	7	-	-	10	1	-
	Bravenes Rock	127	25	2	181	55	7
	Cody Bank	28	3	-	31	2	-
	Cutter Rock	1	-	-	13	3	-
State Waters	South Australia	20	3	-	-	-	-
	Tasmania	15	1	-	28	5	-
	Victoria	414	35	11	551	53	9

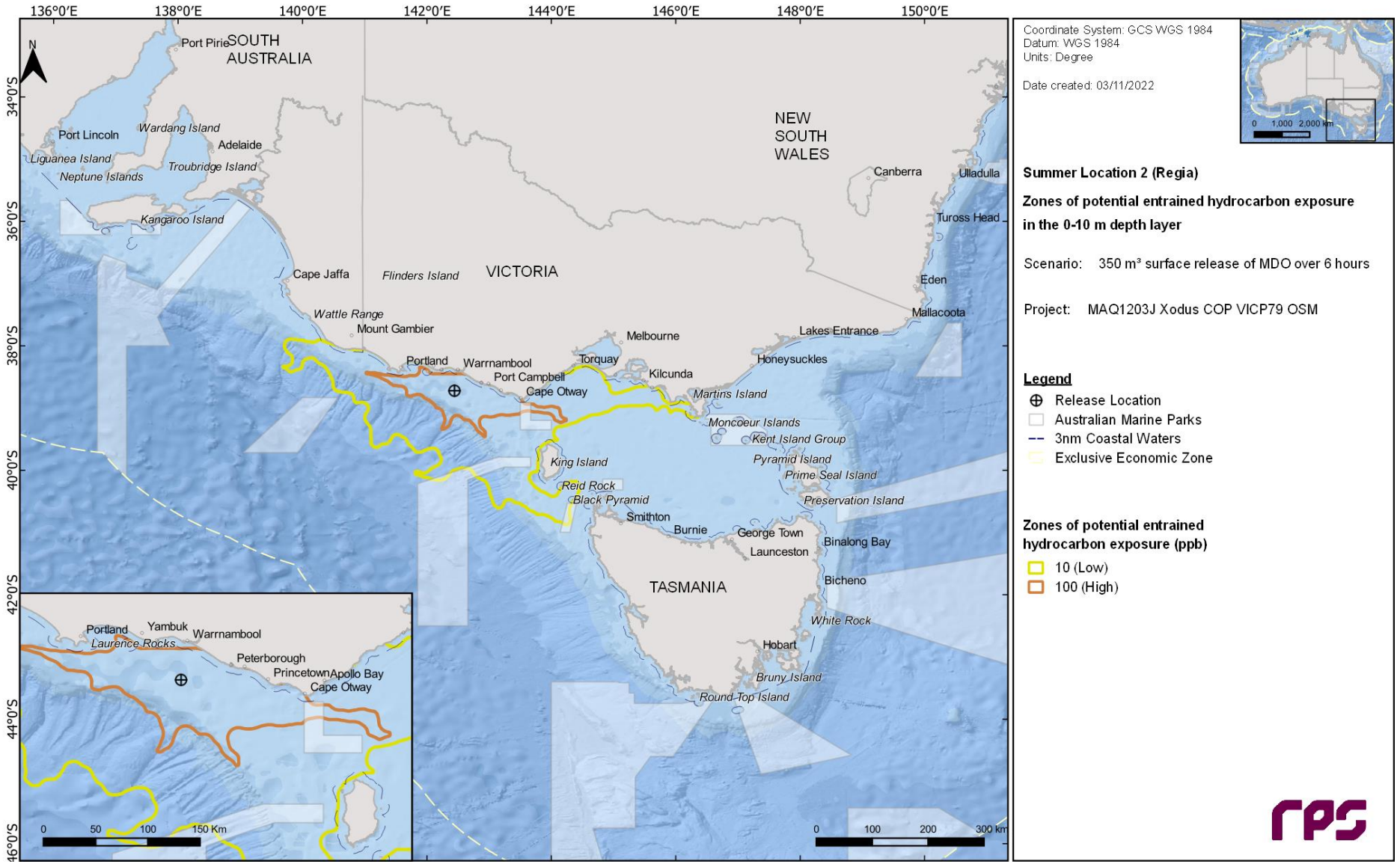


Figure 18.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during summer conditions. The results were calculated from 100 spill simulations.

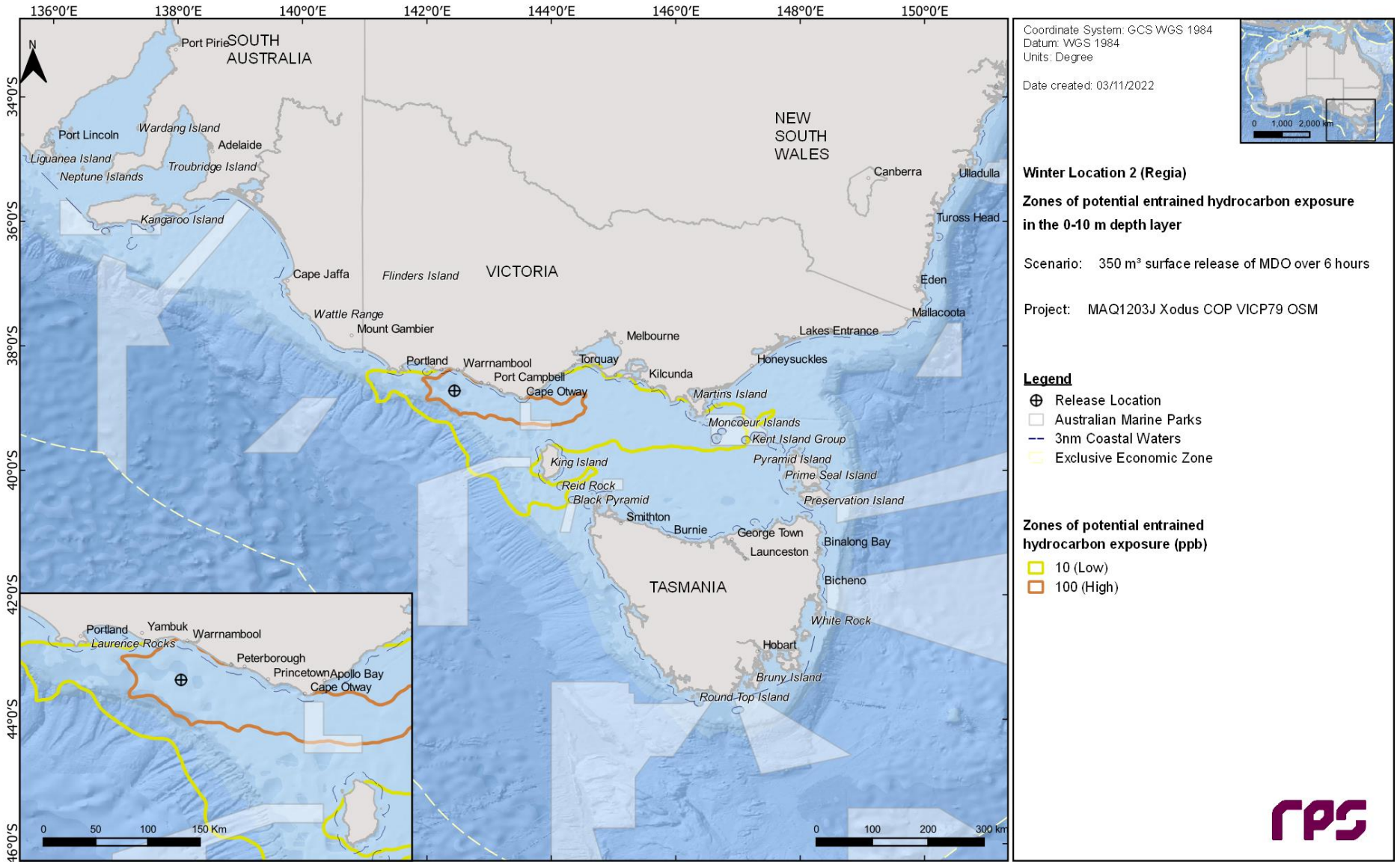


Figure 18.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 2 during winter conditions. The results were calculated from 100 spill simulations.

18.3 Deterministic Analysis

18.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 6 pm 9th August 2010.

Figure 18.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on within 2 days of the release event.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 18.11 and Figure 18.12, respectively.

Figure 18.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 167 m^3 (~48%) was lost to the atmosphere through evaporation. Approximately, 103 m^3 (~29%) of the released volume decayed, while approximately 64 m^3 (~18%) was predicted to remain within the water column and approximately 20 m^3 (~6%) was present on the shorelines.

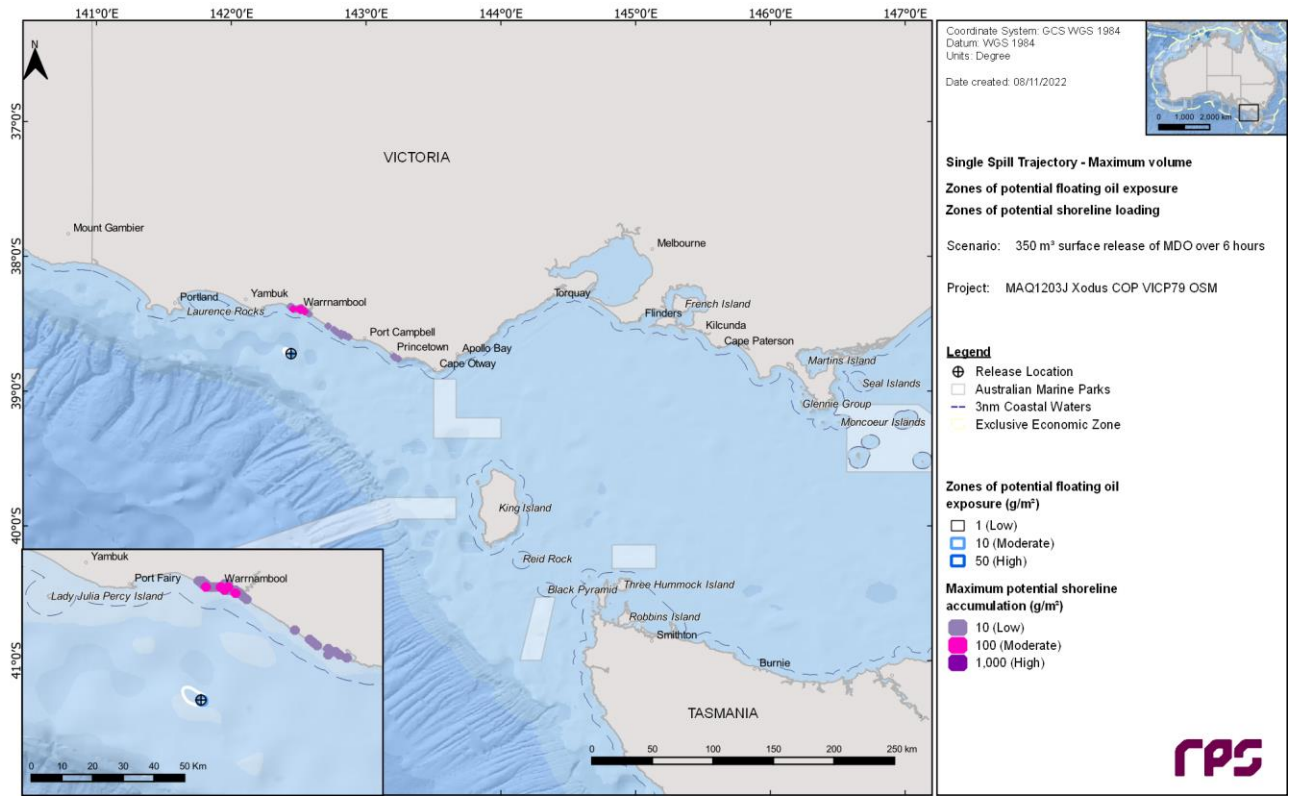


Figure 18.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

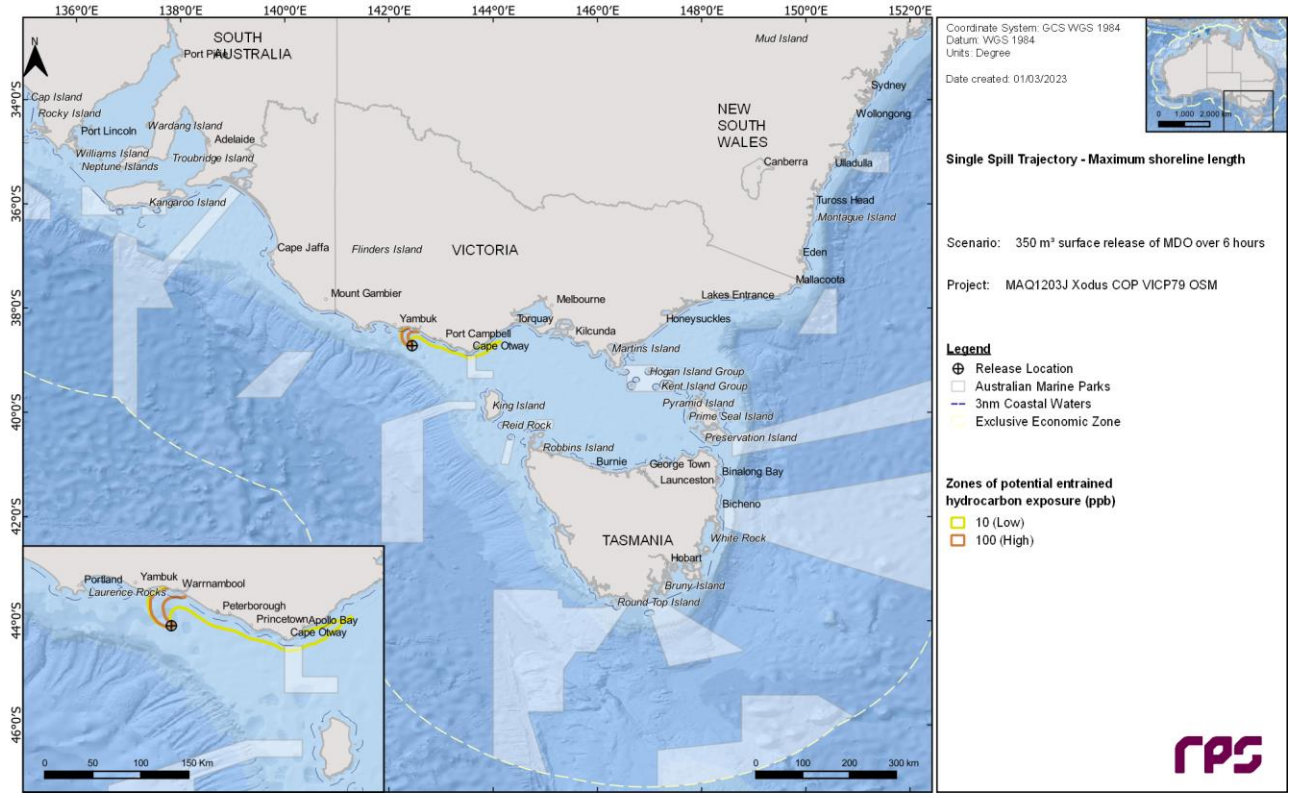


Figure 18.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

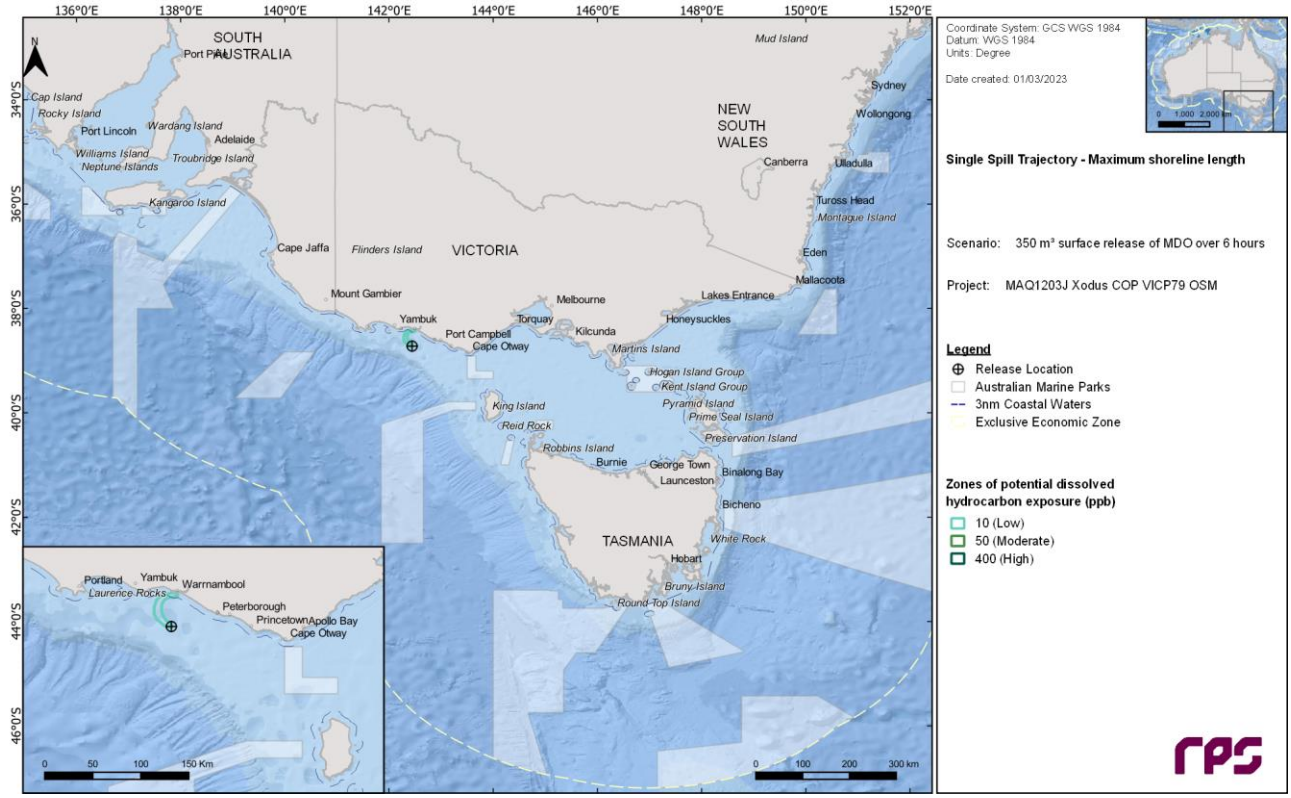


Figure 18.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

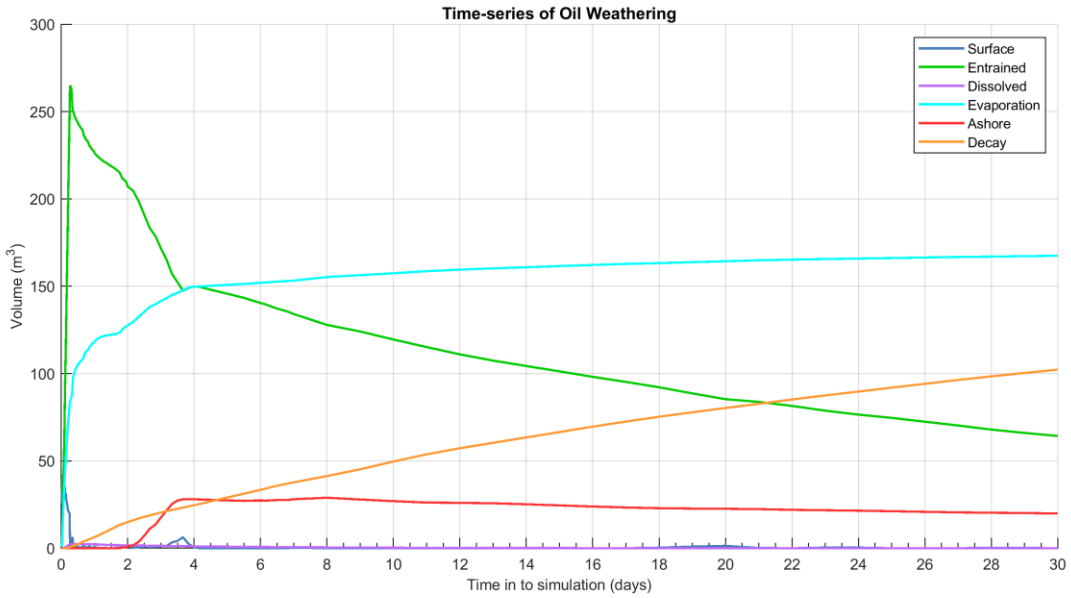


Figure 18.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 2.

18.3.2 Longest Length of Shoreline Accumulation

The simulation that resulted in the longest length of hydrocarbons ashore of 32 km was identified as run number 12 which commenced during winter conditions, 2 pm 1st August 2018.

Figure 18.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 2 of the simulation.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 18.15 and Figure 18.16, respectively.

Figure 18.17 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 170 m^3 (~48%) was lost to the atmosphere through evaporation. Approximately, 102 m^3 (~29%) of the released volume decayed, while approximately 64 m^3 (~18%) was predicted to remain within the water column and approximately 20 m^3 (6%) remained on shorelines.

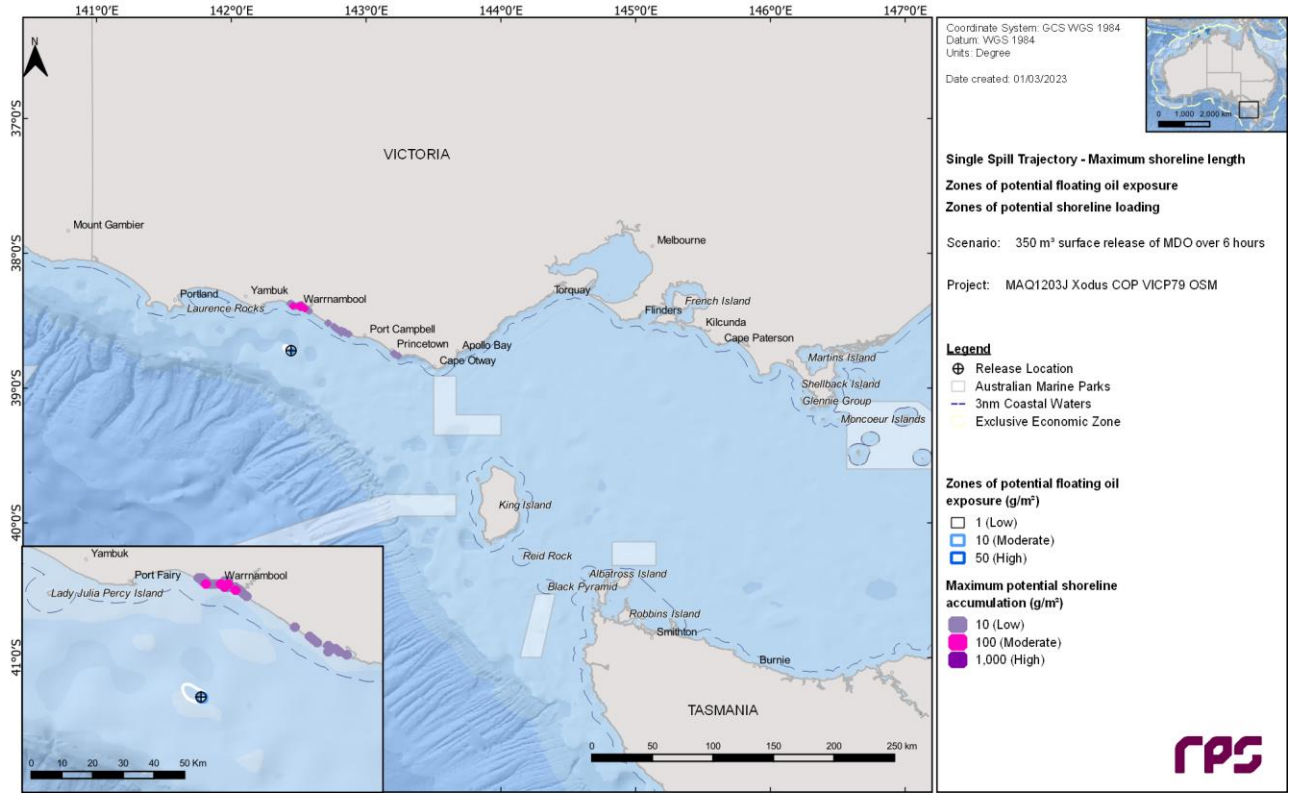


Figure 18.14 Predicted extent of the floating hydrocarbon exposure and shoreline loading over the entire 30 days for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

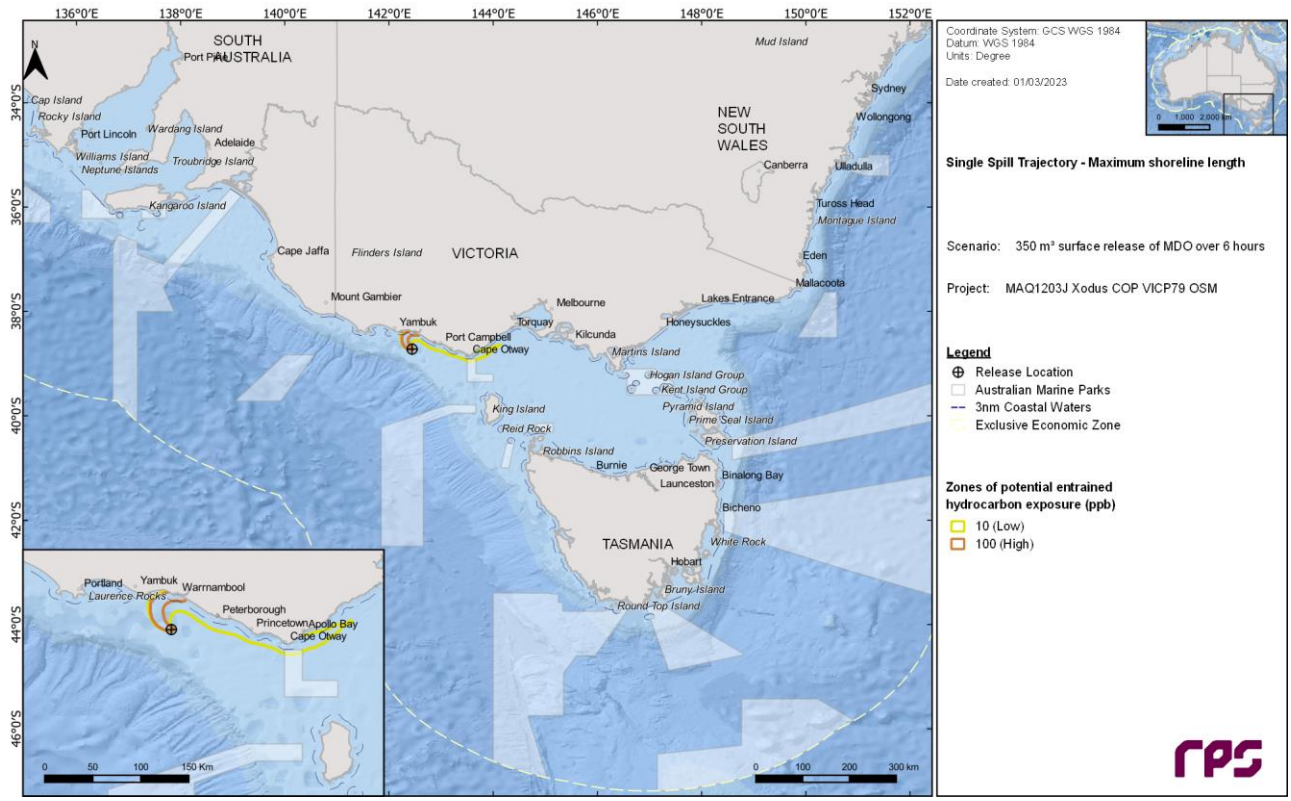


Figure 18.15 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

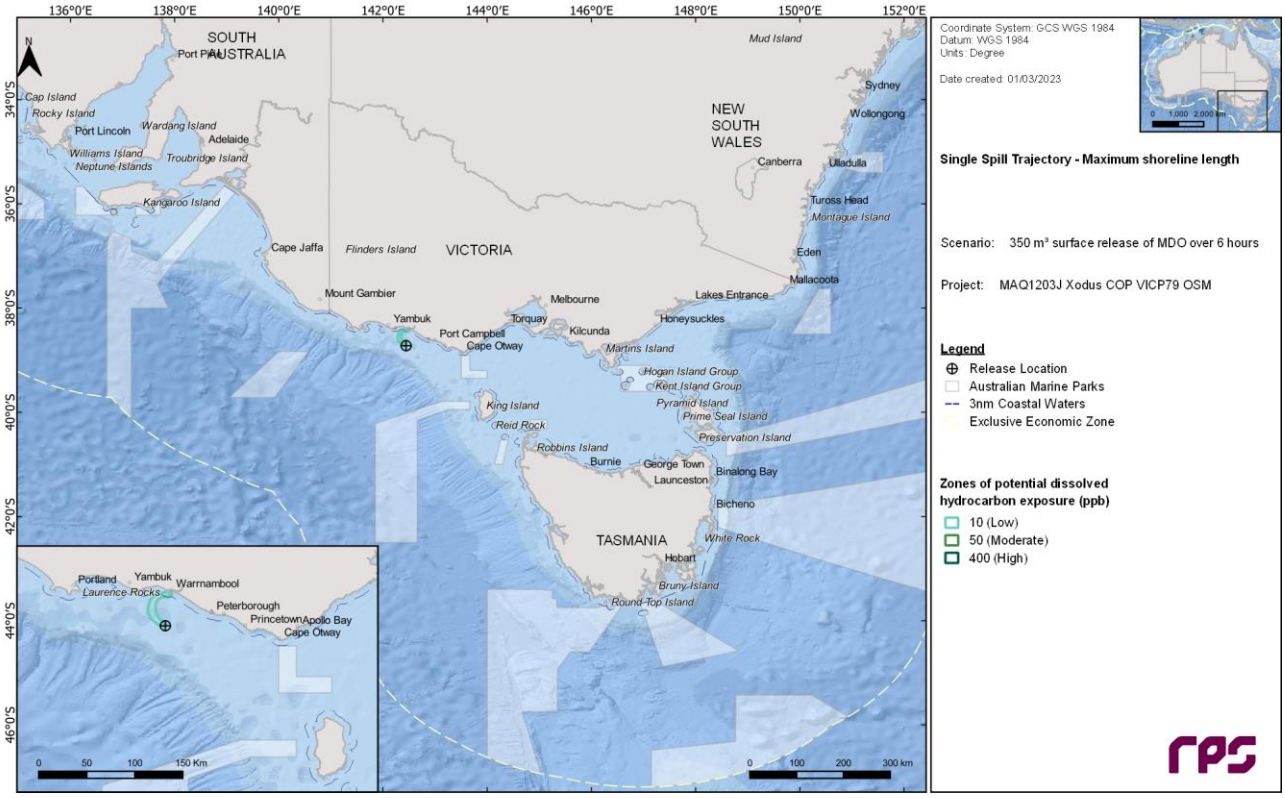


Figure 18.16 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

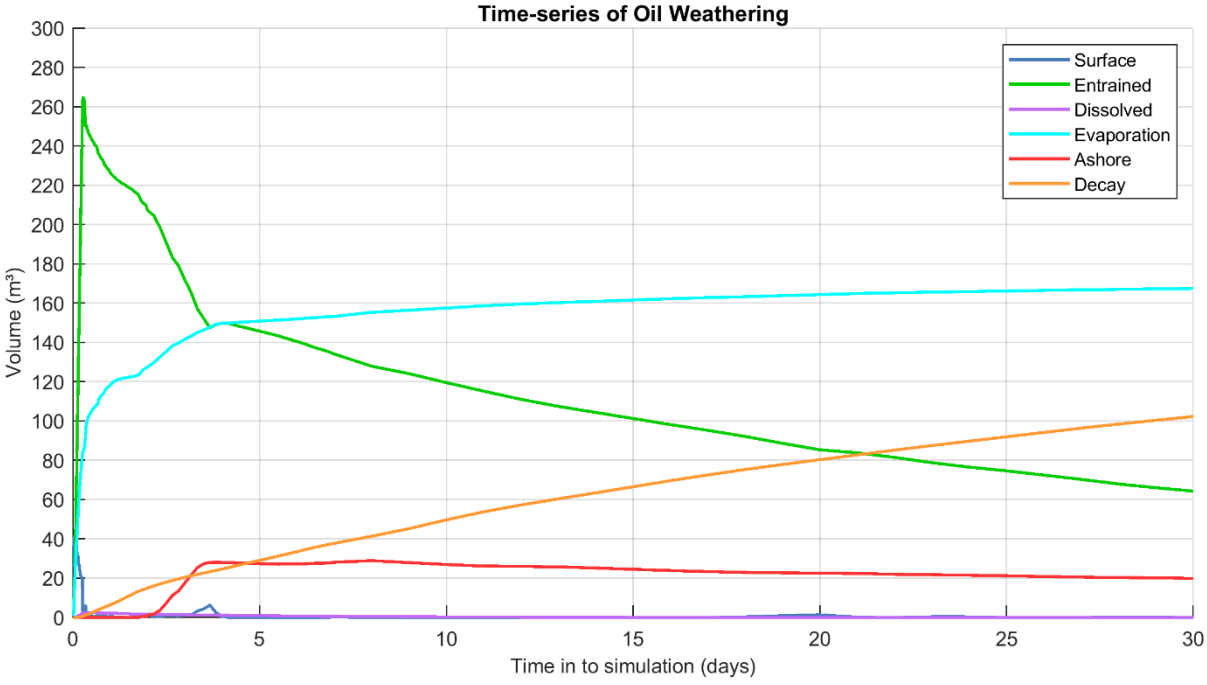


Figure 18.17 Predicted weathering and fates for the simulation that led to the longest length of shoreline accumulation from a vessel collision at Location 2.

19 LOCATION 3 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 3. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 19.1 presents the EMBA, Section 19.2 shows the seasonal (or stochastic) results, while Section 19.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

19.1 EMBA

Figure 19.1 shows the EMBA for Location 3. The EMBA encompasses the outer extent of all 200 seasonal spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

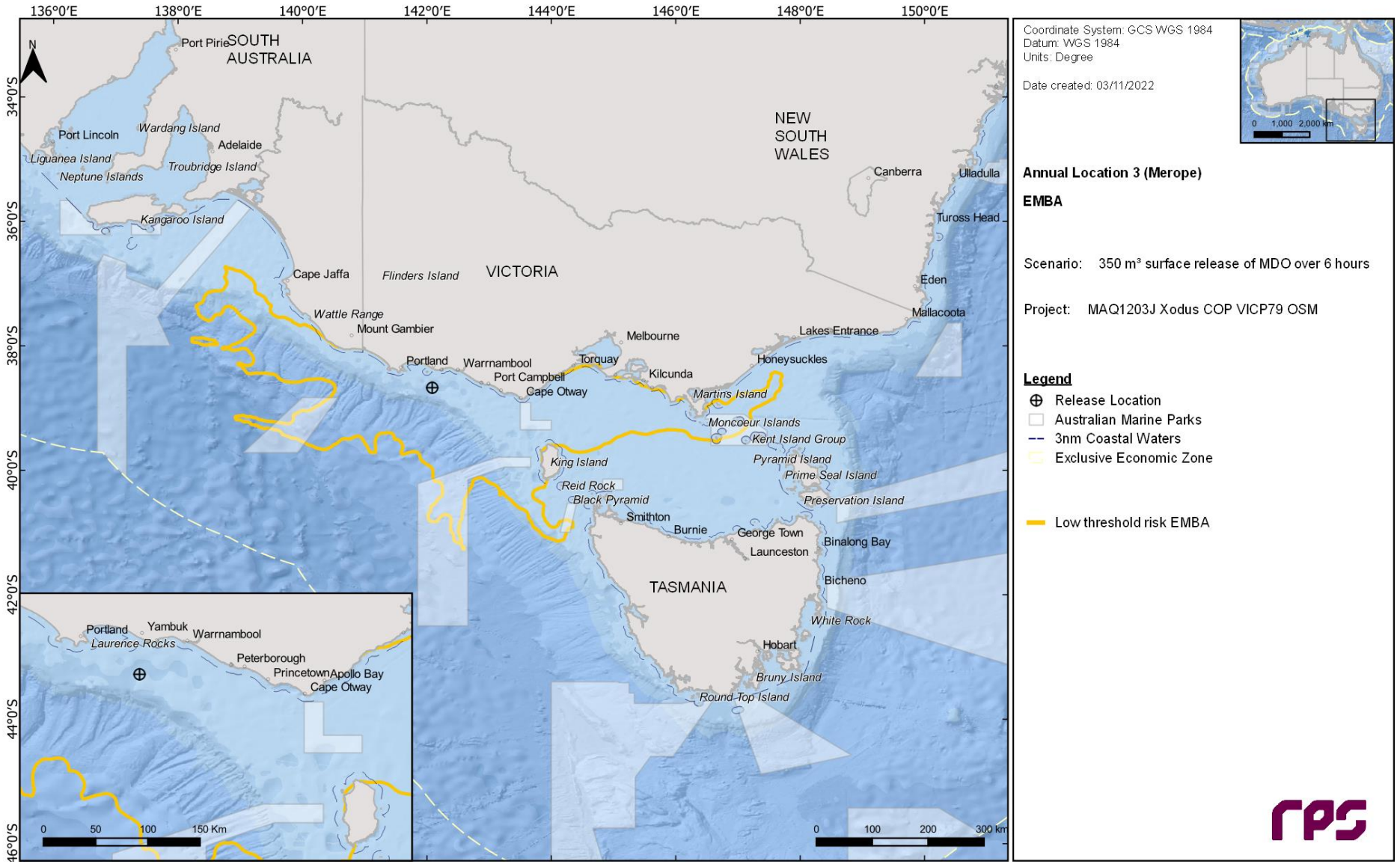


Figure 19.1 Predicted low threshold EMBA from a vessel collision at Location 3. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

19.2 Stochastic Analysis

19.2.1 Floating Oil Exposure

Table 19.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 19.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 19.2 to Figure 19.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating hydrocarbon exposure at or above the low exposure threshold of 139.5 km^2 was identified as run number 3 and commenced during summer conditions, 9 am 31st March 2010. In comparison the largest swept area of floating hydrocarbon at or above the low exposure threshold occurring during winter was 125.0 km^2.

Table 19.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	51.8	12.8	8.0
	Maximum distance (km) from release location (99th percentile)	35.6	12.4	8.0
	Direction	ENE	NE	NE
Winter	Maximum distance (km) from release location	29.1	19.8	4.2
	Maximum distance (km) from release location (99th percentile)	28.1	18.7	4.2
	Direction	ESE	ESE	WNW

Table 19.2 **Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 3 for each season. Results were calculated from 100 spill simulations per season.**

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
IBRA	Warrnambool Plain	-	-	-	-	-	-	-	-	-	-	-	-
IMCRA	Otway	100	100	17	0.04	0.04	0.04	100	100	18	0.04	0.04	0.04
KEF	Bonney Coast Upwelling	1	-	-	1.38	-	-	-	-	-	-	-	-
MNP	Twelve Apostles	-	-	-	-	-	-	-	-	-	-	-	-
State Waters	Victoria	-	-	-	-	-	-	-	-	-	-	-	-

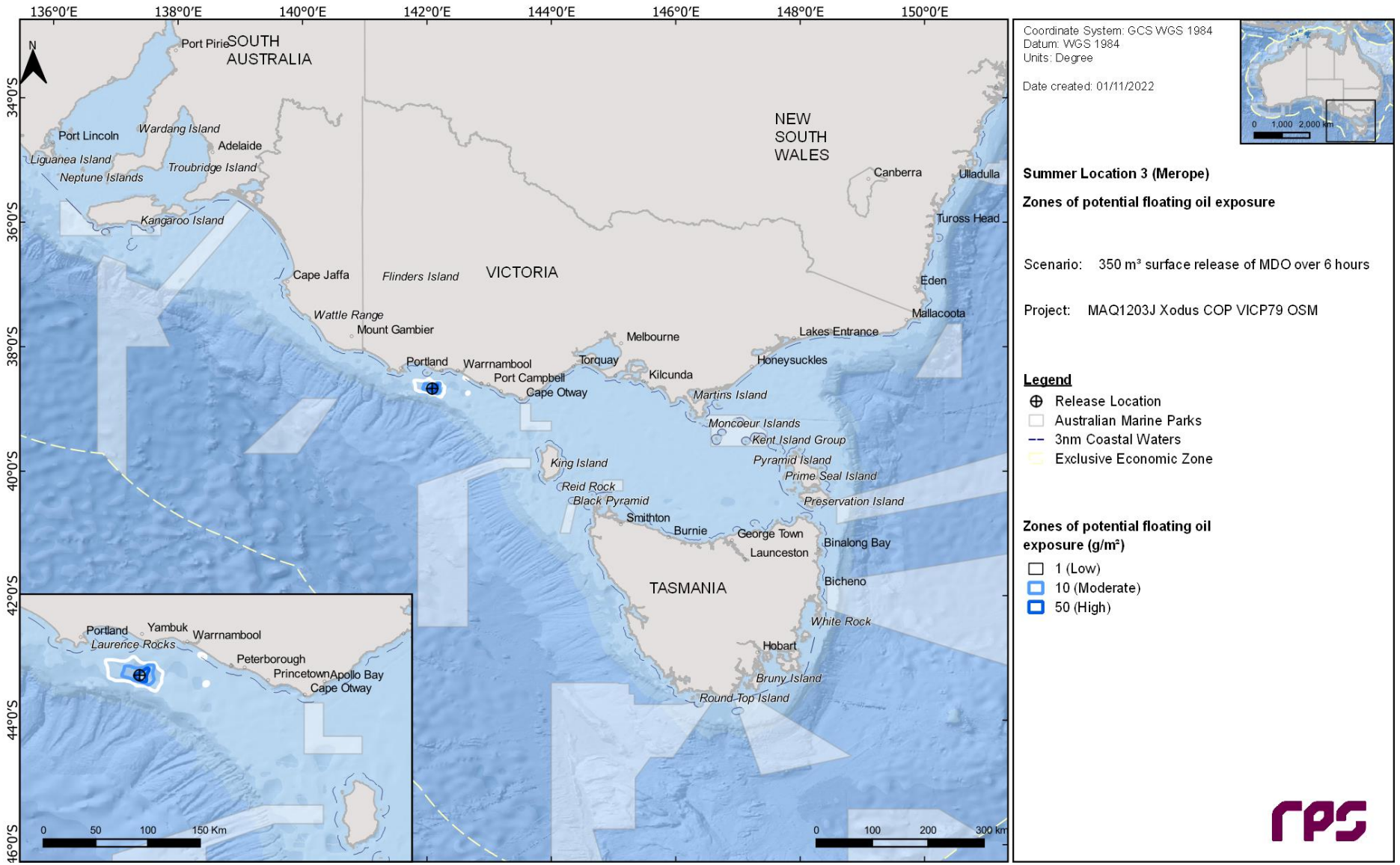


Figure 19.2 Zones of potential floating oil exposure from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

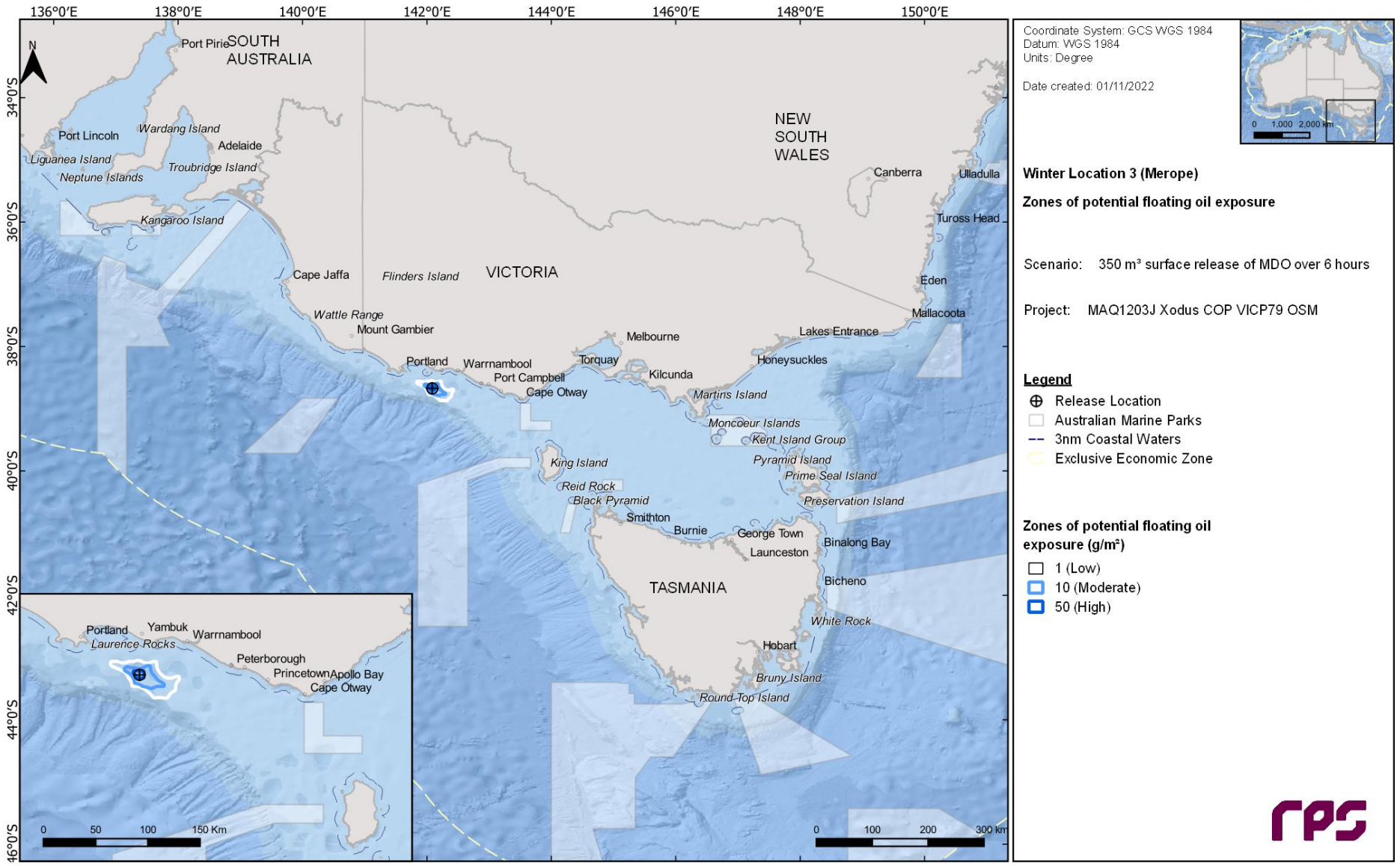


Figure 19.3 Zones of potential floating oil exposure from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

19.2.2 Shoreline Accumulation

Table 19.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 19.4 and Table 19.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 19.4 and Figure 19.5.

Table 19.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 3 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	41	30
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	3.29	3.17
Maximum volume of hydrocarbons ashore (m^3)	9.8	18.0
Average volume of hydrocarbons ashore (m^3)	2.9	4.5
Maximum length of the shoreline at **10 g/m^2** (km)	18	29
Average shoreline length (km) at **10 g/m^2** (km)	7.1	7.8
Maximum length of the shoreline at **100 g/m^2** (km)	3	5
Average shoreline length (km) at **100 g/m^2** (km)	2	3.3
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 19.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 3 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Colac Otway	6	2	-	5.25	6.17	-	29	176	0.5	7.5	7.6	1.9	-	11.5	2.9	-
Corangamite	12	1	-	4.92	5.83	-	26	203	0.6	5.6	4.6	1.9	-	11.5	1.9	-
Glenelg	13	1	-	5.38	12.71	-	20	120	0.7	3.8	5.1	1	-	12.4	1	-
Glennie Group	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Grant	1	-	-	15.88	-	-	15	15	1.3	1.3	1	-	-	1	-	-
Kanowna Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
King Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lady Julia Percy Island	3	-	-	10.71	-	-	18	28	< 0.1	0.3	1	-	-	1	-	-
Laurence Rocks	3	-	-	7.21	-	-	24	49	< 0.1	0.8	1.9	-	-	1.9	-	-
Moncoeur Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moyne	14	2	-	3.29	3.63	-	21	186	0.9	8.1	5.5	1.4	-	14.3	1.9	-
Norman Island	-	-	-	-	-	-	-	-	< 0.1	0.1	-	-	-	-	-	-
Rodondo Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shellback Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Skull Rock	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
South Gippsland	1	-	-	20.54	-	-	14	14	0.6	0.6	2.9	-	-	2.9	-	-
Warrnambool	6	-	-	5.88	-	-	16	35	0.2	2.6	3.3	-	-	6.7	-	-

Table 19.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 3 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Colac Otway	11	1	-	4.46	6.46	-	19	143	1	15.4	5.8	1.9	-	27.7	1.9	-
Corangamite	11	2	-	3.75	4.83	-	37	322	1.6	17	5.5	3.3	-	13.4	4.8	-
Glenelg	2	-	-	6.29	-	-	14	22	0.1	1.6	4.3	-	-	4.8	-	-
Glennie Group	1	-	-	19.42	-	-	12	12	0.6	0.6	1.9	-	-	1.9	-	-
Grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kanowna Island	1	-	-	12.17	-	-	25	25	0.3	0.3	1	-	-	1	-	-
King Island	1	-	-	11.71	-	-	33	33	2.0	2.0	2.9	-	-	2.9	-	-
Lady Julia Percy Island	2	-	-	5.29	-	-	29	43	< 0.1	0.5	1	-	-	1	-	-
Laurence Rocks	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Moncoeur Islands	1	-	-	14.63	-	-	17	17	0.6	0.6	2.9	-	-	2.9	-	-
Moyne	7	2	-	4.21	5.13	-	42	262	1.2	14.7	6.1	4.8	-	12.4	4.8	-
Norman Island	1	-	-	16.96	-	-	19	19	0.7	0.7	2.9	-	-	2.9	-	-
Rodondo Island	1	-	-	16.17	-	-	11	11	0.1	0.1	1	-	-	1	-	-
Shellback Island	1	-	-	15.79	-	-	61	61	0.7	0.7	1	-	-	1	-	-
Skull Rock	1	-	-	12.17	-	-	25	25	0.3	0.3	1	-	-	1	-	-
South Gippsland	3	-	-	13.5	-	-	22	98	0.2	3.6	3.5	-	-	6.7	-	-
Warrnambool	3	1	-	3.17	10.83	-	108	108	8.8	8.8	7	1	-	15.3	1	-

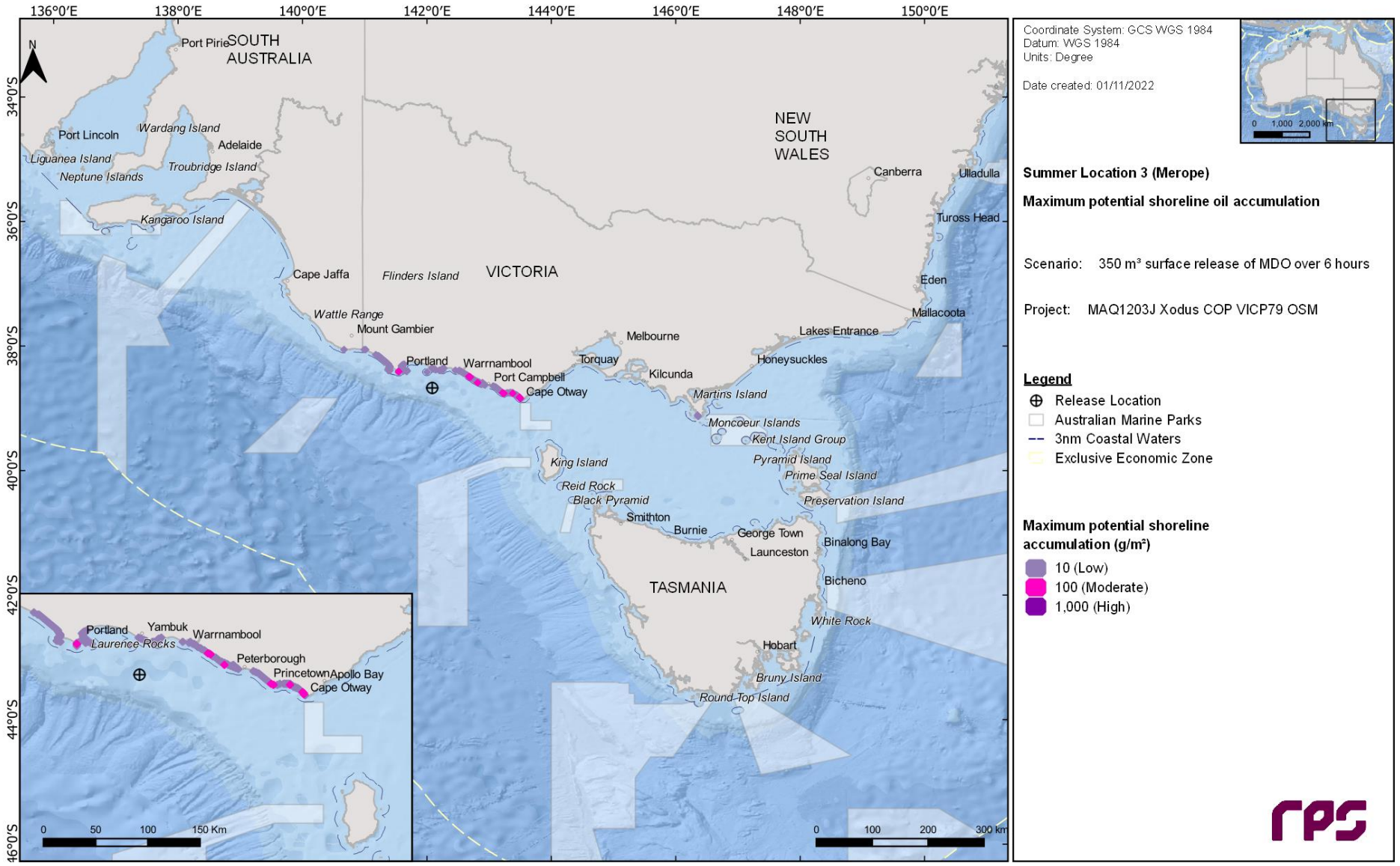


Figure 19.4 Maximum potential shoreline loading from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

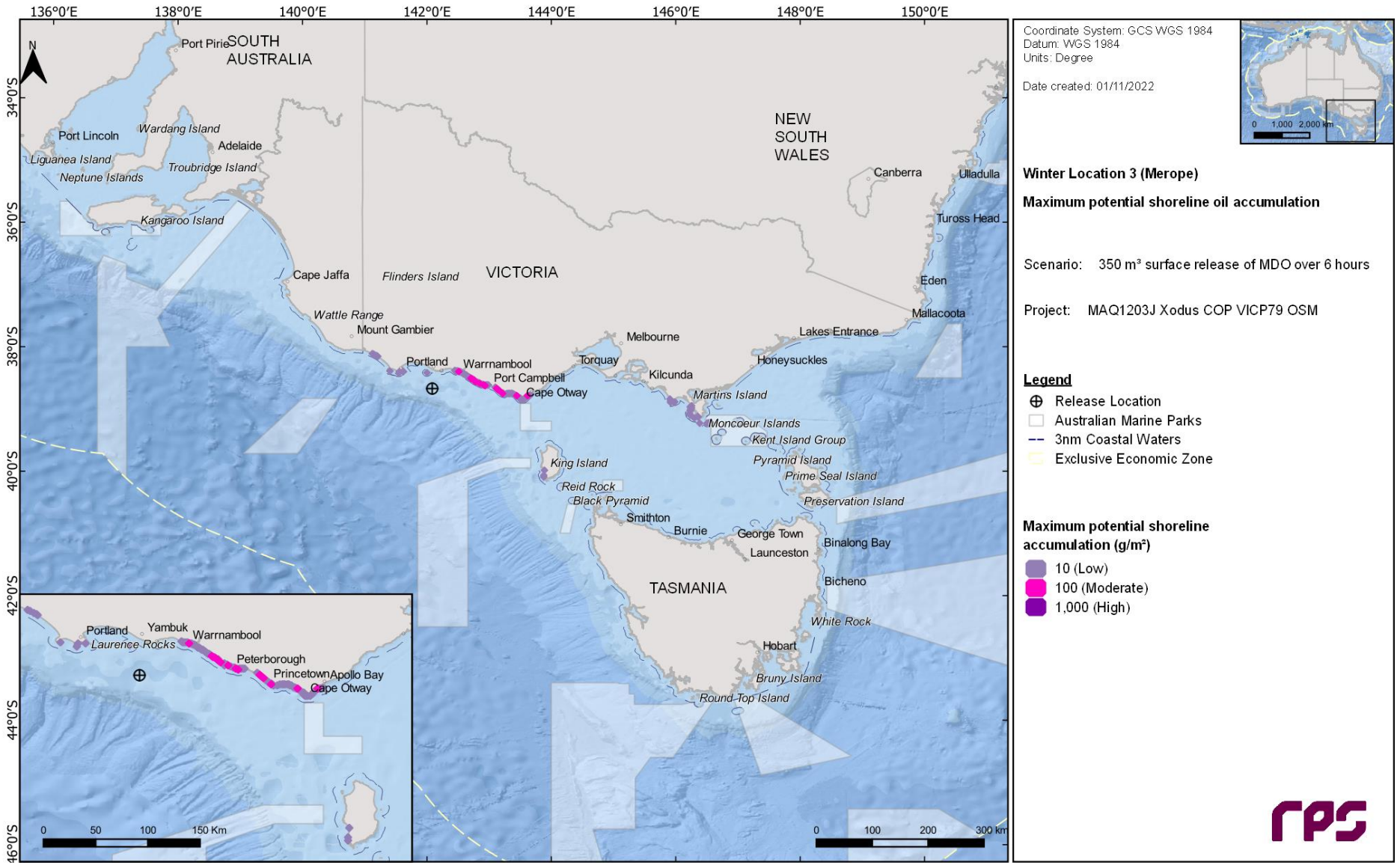


Figure 19.5 Maximum potential shoreline loading from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

19.2.3 In-water exposure

19.2.3.1 Dissolved Hydrocarbons

Table 19.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 19.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 19.6 and Figure 19.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 19.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	98	2	-
	Maximum distance (km) from release location (99th percentile)	56	2	-
	Direction	WNW	NE	-
Winter	Maximum distance (km) from release location	121	3	-
	Maximum distance (km) from release location (99th percentile)	108	3	-
	Direction	SE	E	-

Table 19.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
IMCRA	Otway	68	50	4	-	99	52	9	-
KEF	Bonney Coast Upwelling	23	1	-	-	16	1	-	-
State Waters	Victoria	4	-	-	-	11	1	-	-

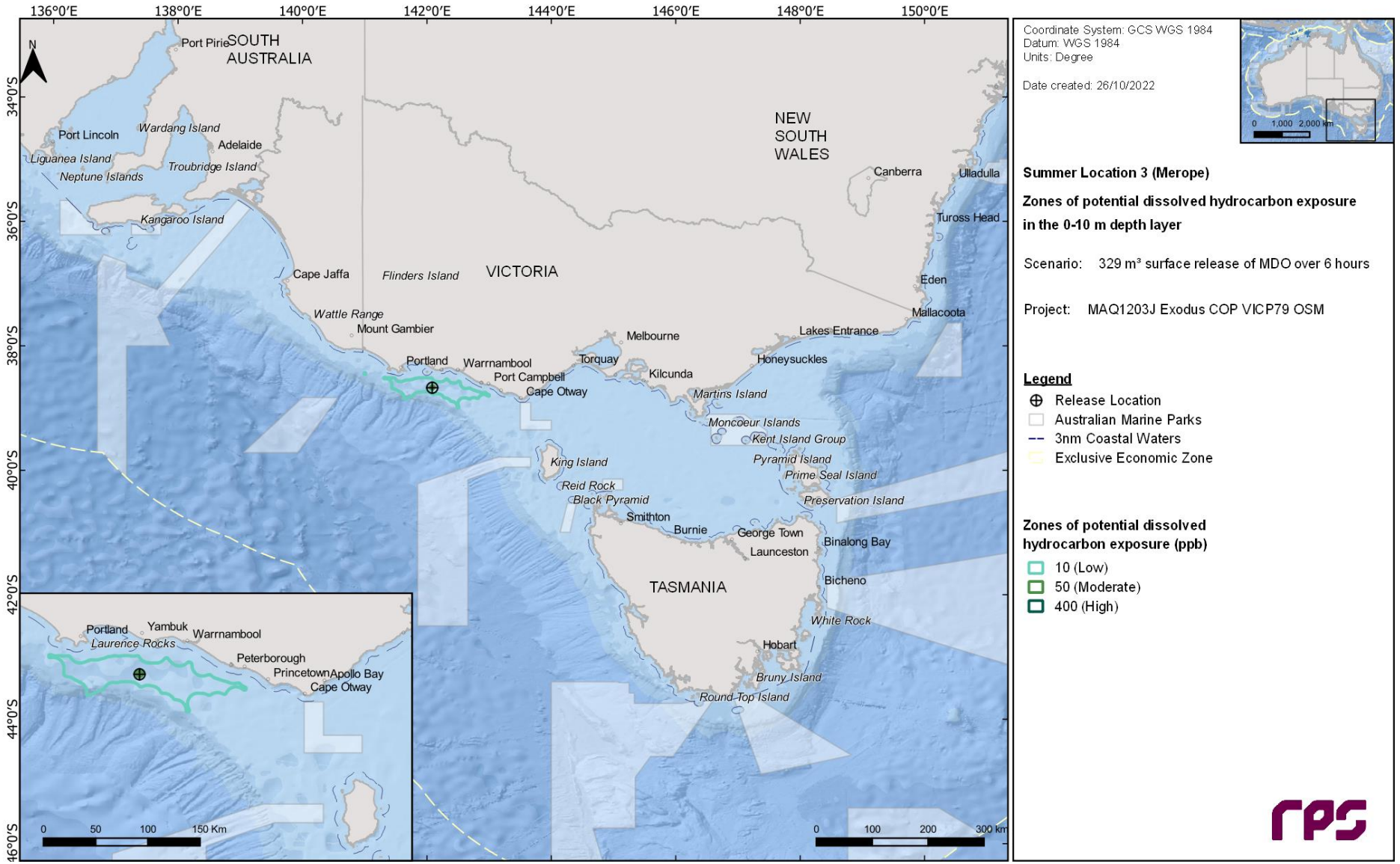


Figure 19.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

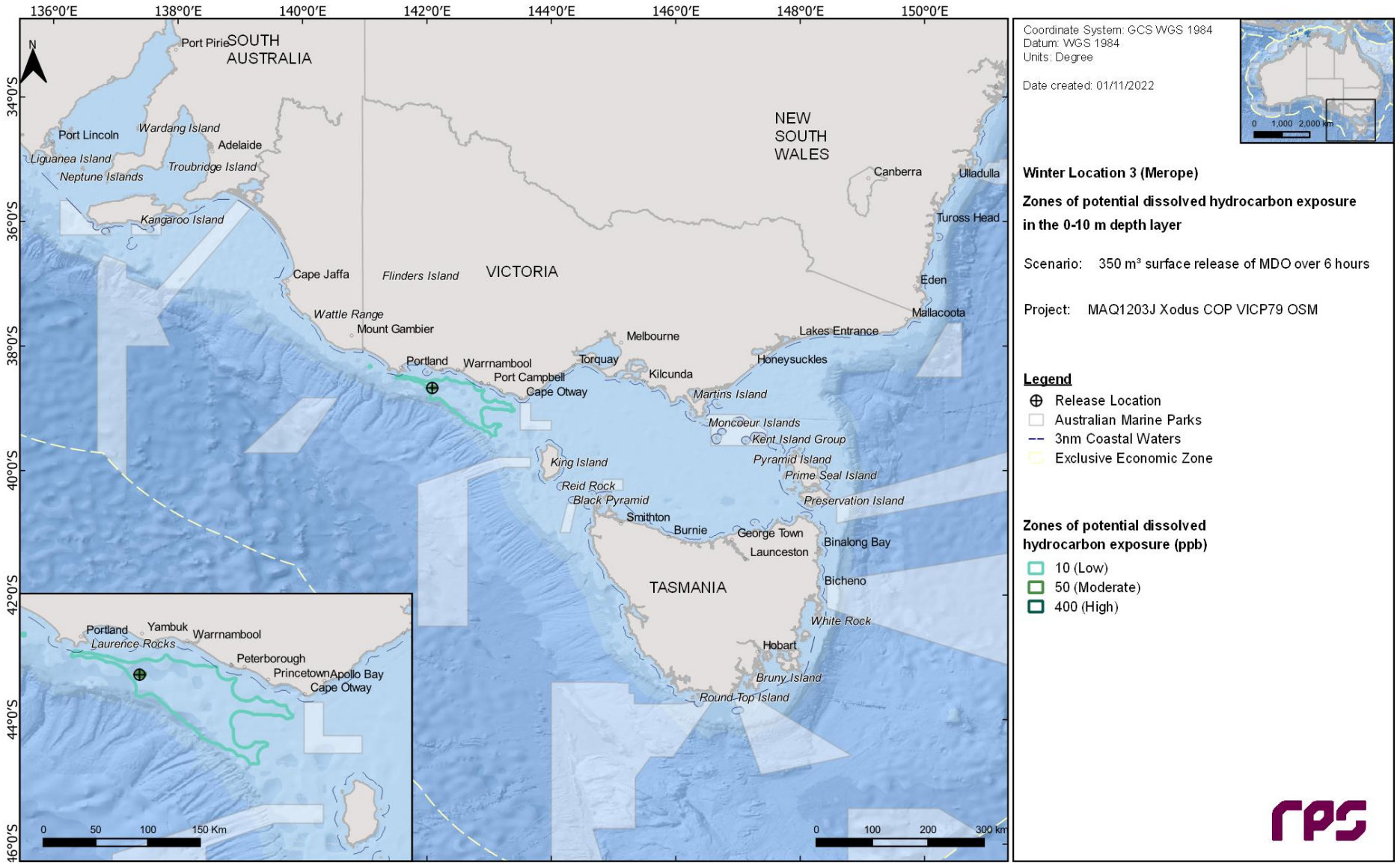


Figure 19.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

19.2.3.2 Entrained Hydrocarbons

Table 19.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 19.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 19.8 and Figure 19.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 19.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	379	134
	Maximum distance (km) from release location (99^{th} percentile)	351	121
	Direction	E	ESE
Winter	Maximum distance (km) from release location	489	187
	Maximum distance (km) from release location (99^{th} percentile)	450	172
	Direction	E	E

Table 19.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 3 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	104	8	1	177	47	3
	Beagle	4	-	-	25	8	-
	Franklin	6	-	-	12	1	-
	Nelson	19	2	-	10	-	-
	Zeehan	33	5	-	80	3	-
IBRA	Bridgewater	90	14	-	180	2	1
	Flinders	2	-	-	14	2	-
	Gippsland Plain	22	2	-	19	3	-
	Glenelg Plain	102	15	1	109	4	1
	King Island	7	-	-	26	2	-
	Otway Plain	100	12	-	110	25	1
	Otway Ranges	100	15	-	81	26	-
	Strzelecki Ranges	10	1	-	16	2	-
	Warrnambool Plain	185	19	2	298	26	2
	Wilsons Promontory	34	2	-	37	10	-
IMCRA	Central Bass Strait	74	6	-	176	44	3
	Central Victoria	90	7	-	151	43	3
	Coorong	29	3	-	-	-	-
	Flinders	35	2	-	40	10	-
	Franklin	4	-	-	13	1	-
	Otway	7,237	95	91	8,442	93	83
	Twofold Shelf	2	-	-	19	5	-
	Victorian Embayments	10	-	-	11	2	-
KEF	Bonney Coast Upwelling	737	37	12	776	10	4
	West Tasmania Canyons	87	9	-	159	3	1
MNP	Bunurong	3	-	-	11	1	-
	Discovery Bay	110	14	1	251	2	1
	Point Addis	10	1	-	15	3	-
	Twelve Apostles	133	19	1	298	25	2
	Wilsons Promontory	33	1	-	37	5	-
MP	Lower South East	19	3	-	32	8	-
MS	Marengo Reefs	39	8	-	67	2	-
	Merri	56	12	-	119	11	1
	The Arches	19	3	-	32	8	-
Nearshore Waters	Anser Island	25	1	-	35	3	-
	Colac Otway	100	12	-	110	25	1
	Corangamite	111	19	1	298	26	2
	Curtis Island	2	-	-	11	1	-

	Glenelg	102	15	1	216	4	1
	Glennie Group	32	1	-	35	5	-
	Grant	22	2	-	-	-	-
	Hogan Island Group	-	-	-	14	2	-
	Kanowna Island	23	1	-	37	5	-
	King Island	7	-	-	26	2	-
	Lady Julia Percy Island	77	11	-	22	2	-
	Laurence Rocks	84	18	-	14	1	-
	Moncoeur Islands	3	-	-	24	9	-
	Mornington Peninsula	7	-	-	16	3	-
	Moyne	185	16	2	190	15	2
	Norman Island	32	2	-	24	4	-
	Phillip Island	11	1	-	11	1	-
	Rodondo Island	5	-	-	24	7	-
	Seal Islands	1	-	-	12	1	-
	Shellback Island	19	2	-	17	3	-
	Skull Rock	21	1	-	38	5	-
	South Gippsland	29	2	-	28	4	-
	Surf Coast	14	2	-	16	2	-
	Warrnambool	85	10	-	85	3	-
NPS4	Wilsons Promontory Marine Park	27	2	-	21	3	-
	Wilsons Promontory Marine Reserve	31	1	-	29	4	-
Ramsar	Glenelg Estuary and Discovery Bay Wetlands	69	6	-	8	-	-
	Piccaninnie Ponds Karst Wetlands	18	2	-	-	-	-
RSB	Bravenes Rock	105	13	1	66	29	-
	Cody Bank	11	1	-	14	1	-
	Cutter Rock	6	-	-	15	3	-
State Waters	South Australia	40	4	-	-	-	-
	Tasmania	8	-	-	34	3	-
	Victoria	337	28	3	493	32	5

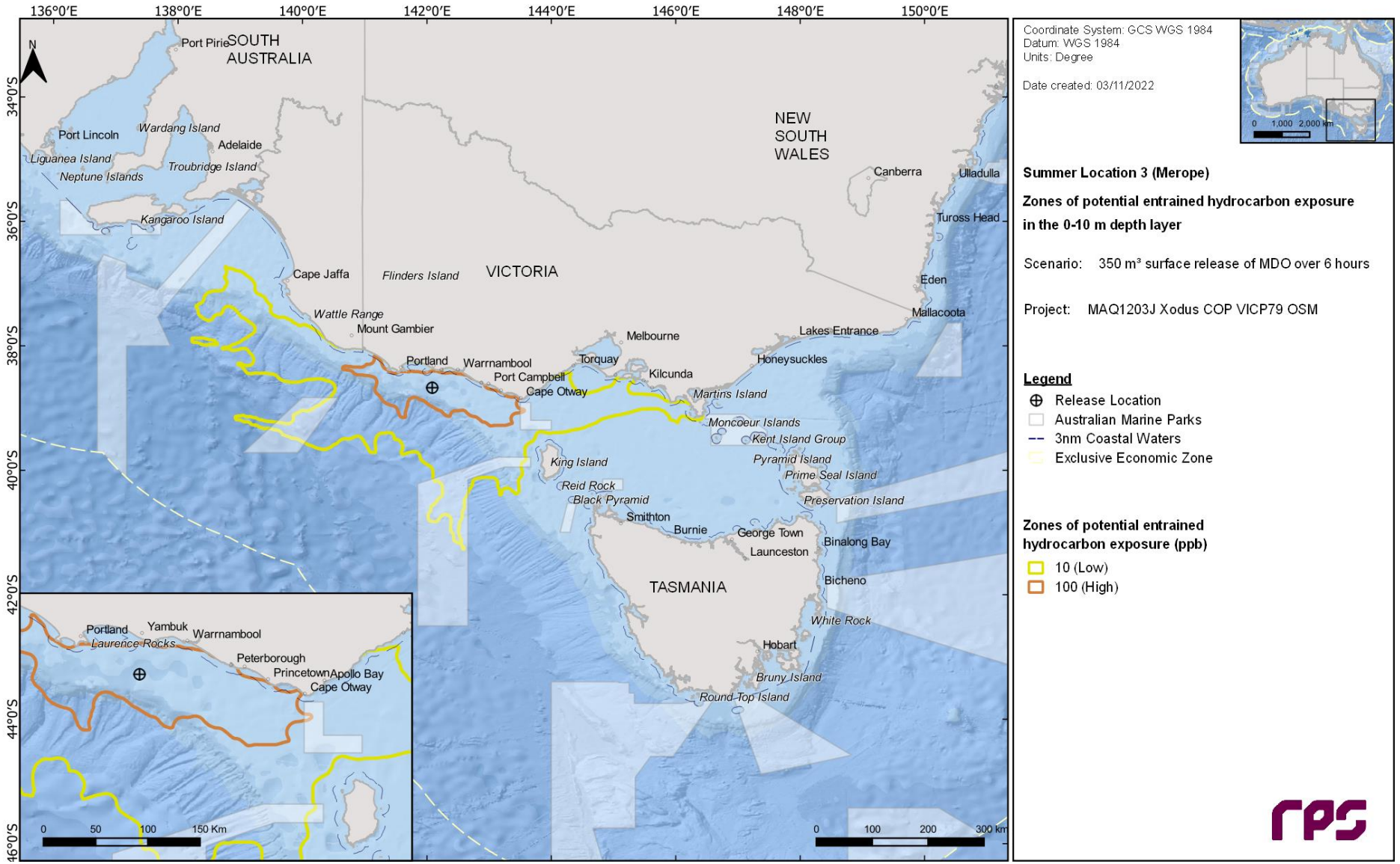


Figure 19.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during summer conditions. The results were calculated from 100 spill simulations.

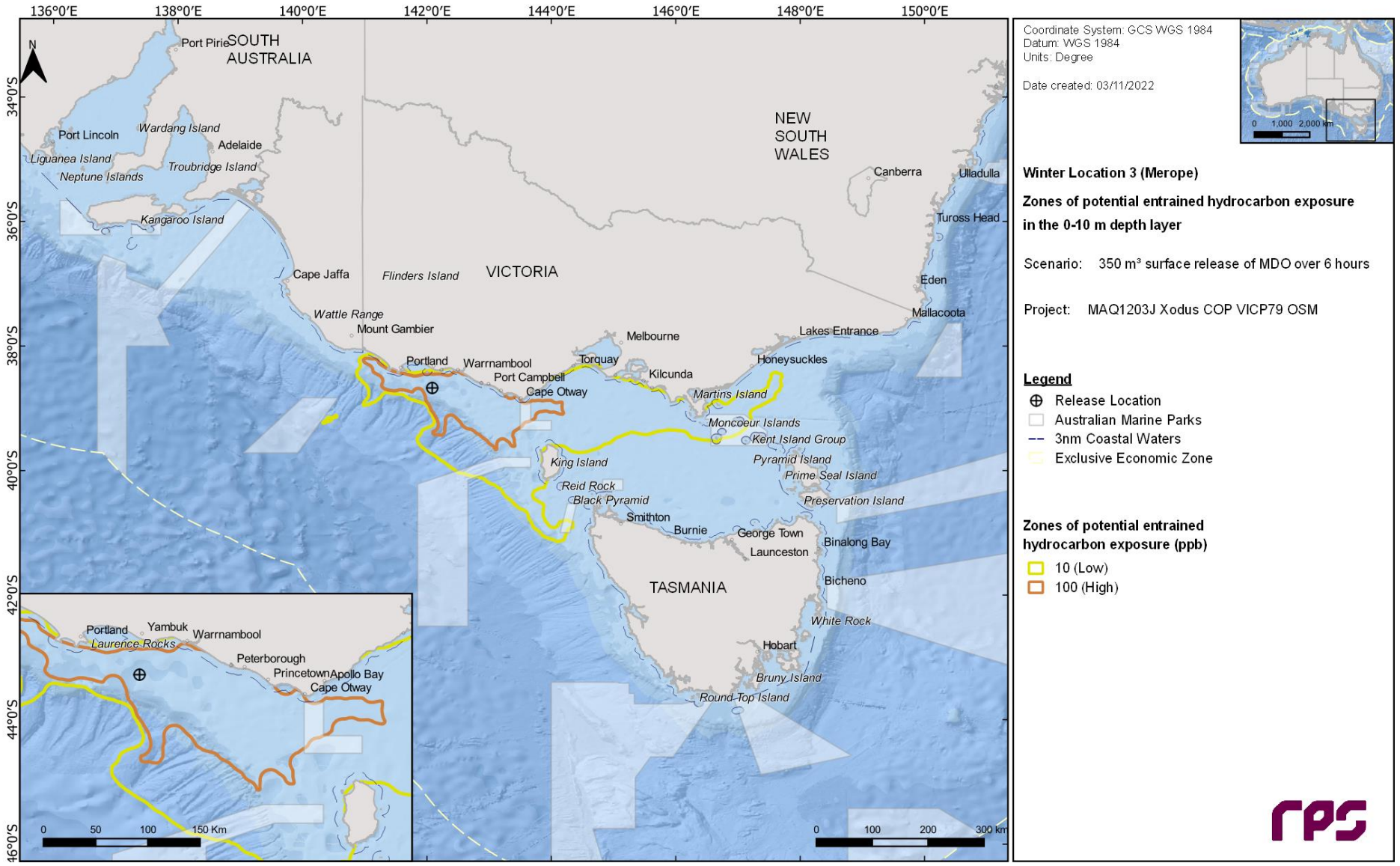


Figure 19.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 3 during winter conditions. The results were calculated from 100 spill simulations.

19.3 Deterministic Analysis

19.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 4 am 17th August 2019.

Figure 19.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 3.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 19.11 and Figure 19.12, respectively.

Figure 19.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 152 m^3 (~44%) was lost to the atmosphere through evaporation. Approximately, 105 m^3 (~31%) of the released volume decayed, while approximately 80 m^3 (~22%) was predicted to remain within the water column and approximately 13 m^3 (~4%) was present on the shorelines.

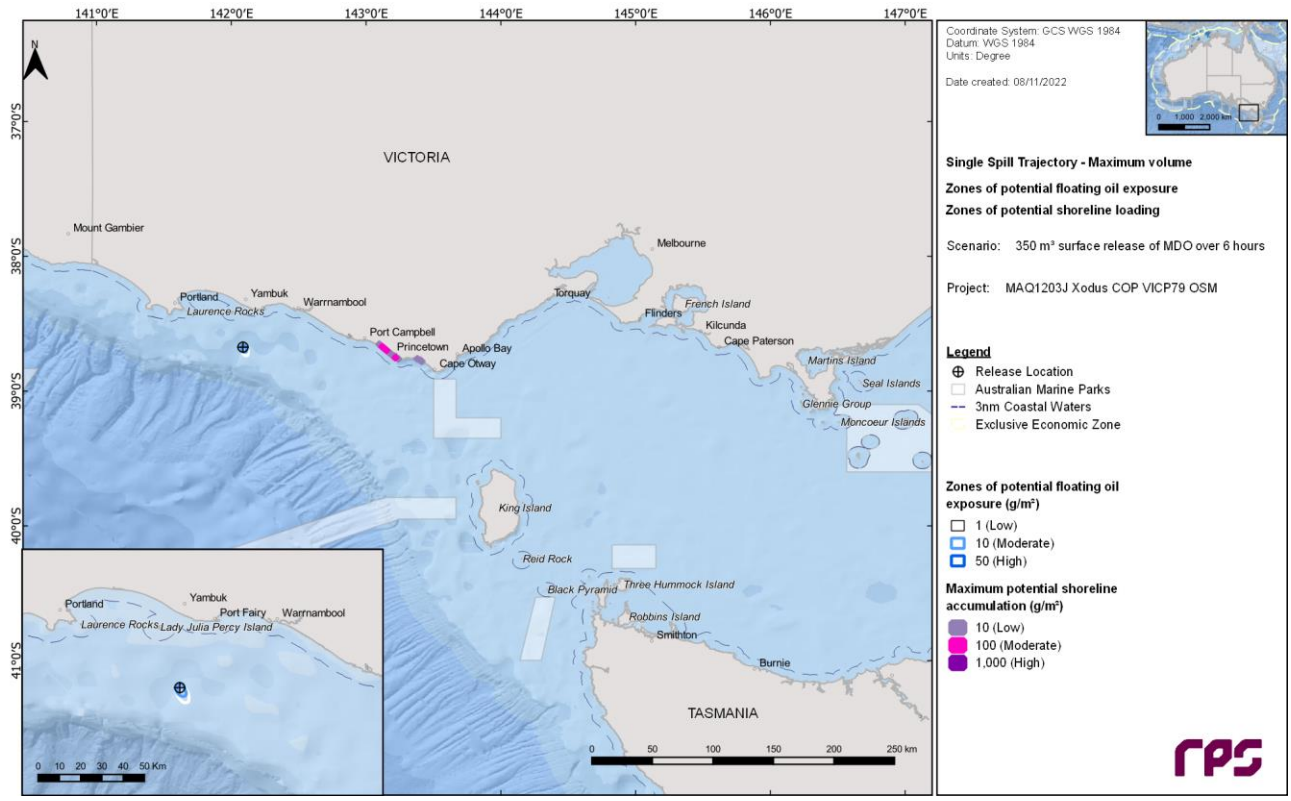


Figure 19.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

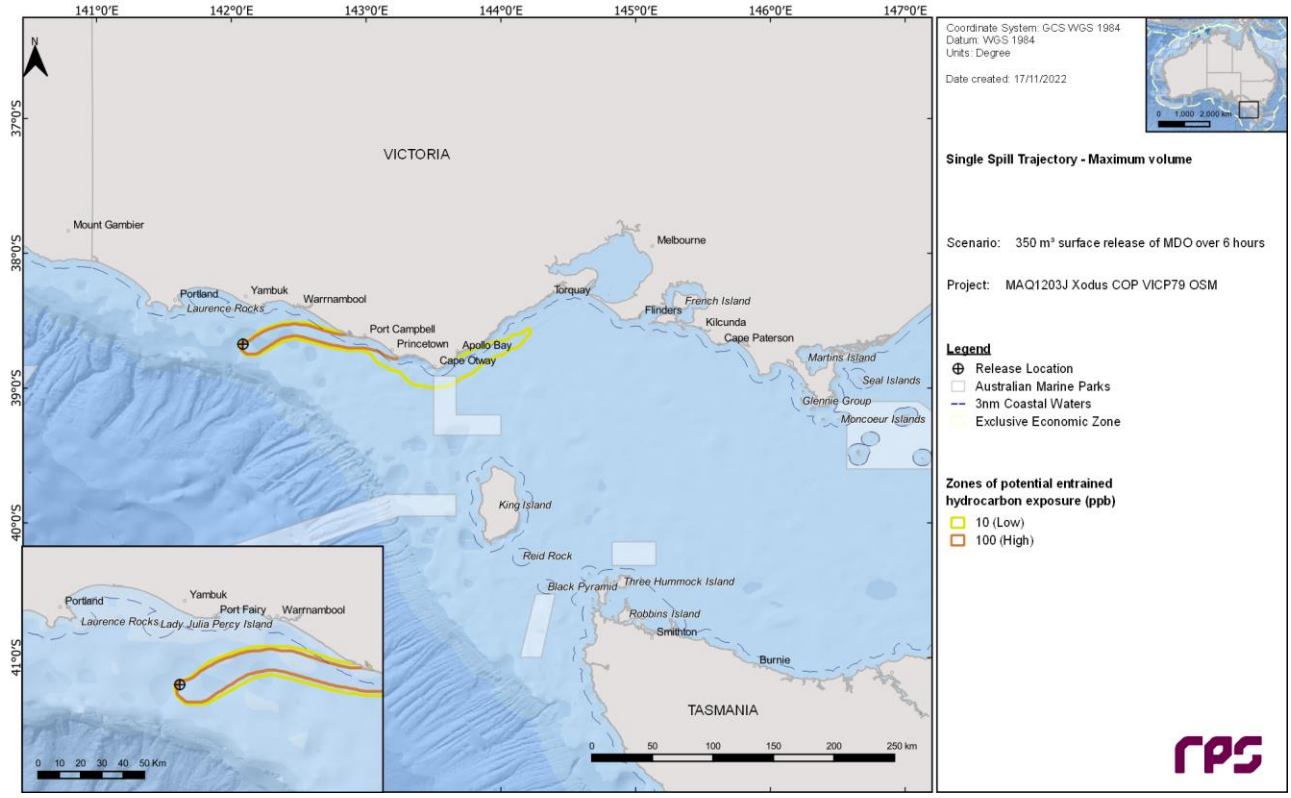


Figure 19.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

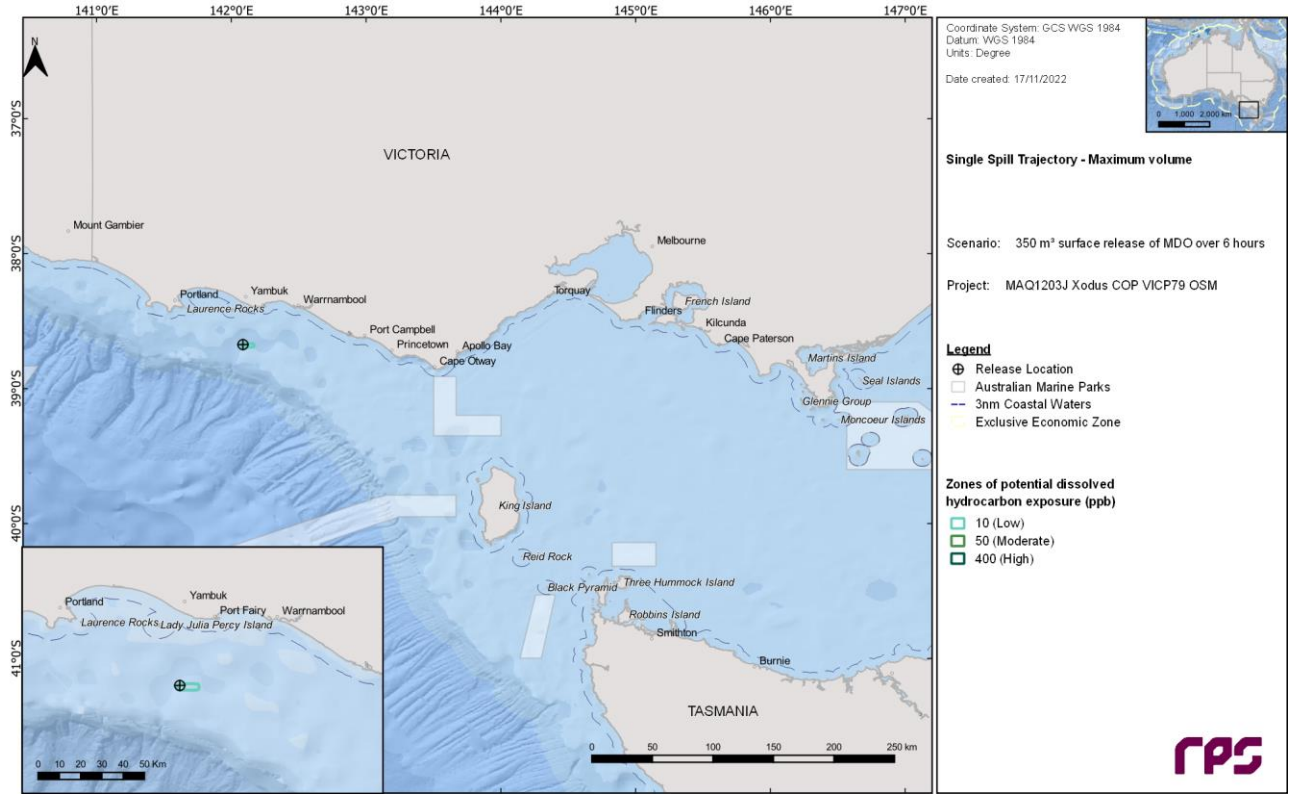


Figure 19.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

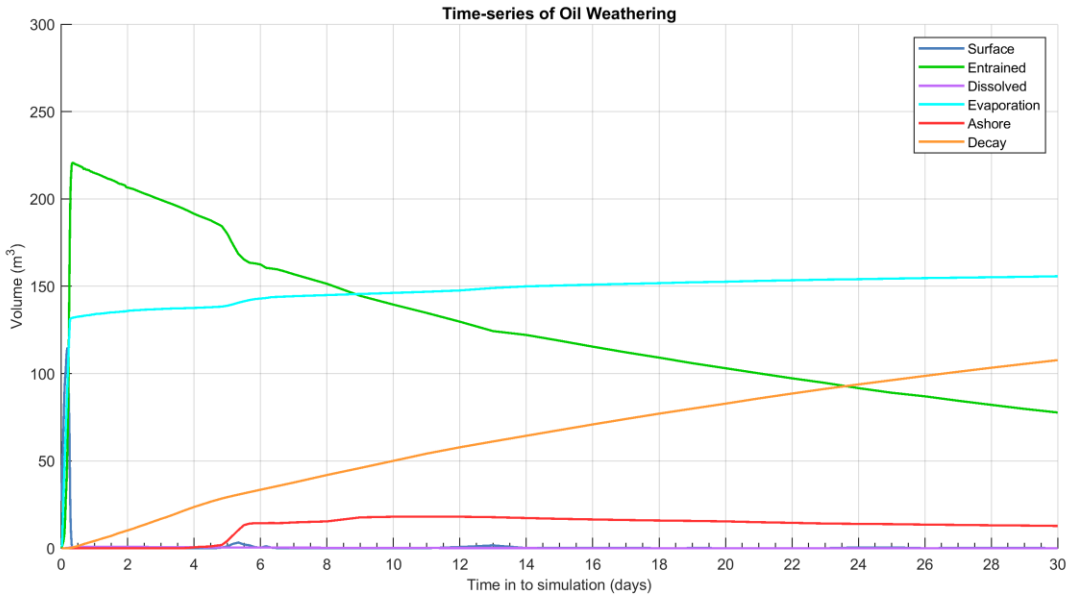


Figure 19.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 3.

20 LOCATION 4 VESSEL COLLISION RESULTS

This scenario examined the potential exposure following a vessel collision at Location 4. A total of 200 spill trajectories were simulated (i.e. 100 spills per season) and tracked for 120 days.

Section 20.1 presents the EMBA, Section 20.2 shows the seasonal (or stochastic) results, while Section 20.3 presents in more detail the results for the simulation resulting in the largest volume of hydrocarbons ashore.

20.1 EMBA

Figure 20.1 shows the EMBA for Location 4. The EMBA encompasses the outer extent of all 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components (1 g/m^2 floating, 10 ppb dissolved and entrained, 10 g/m^2 shoreline) and includes all probabilities of exposure. The EMBA does not represent the reach of an individual spill event.

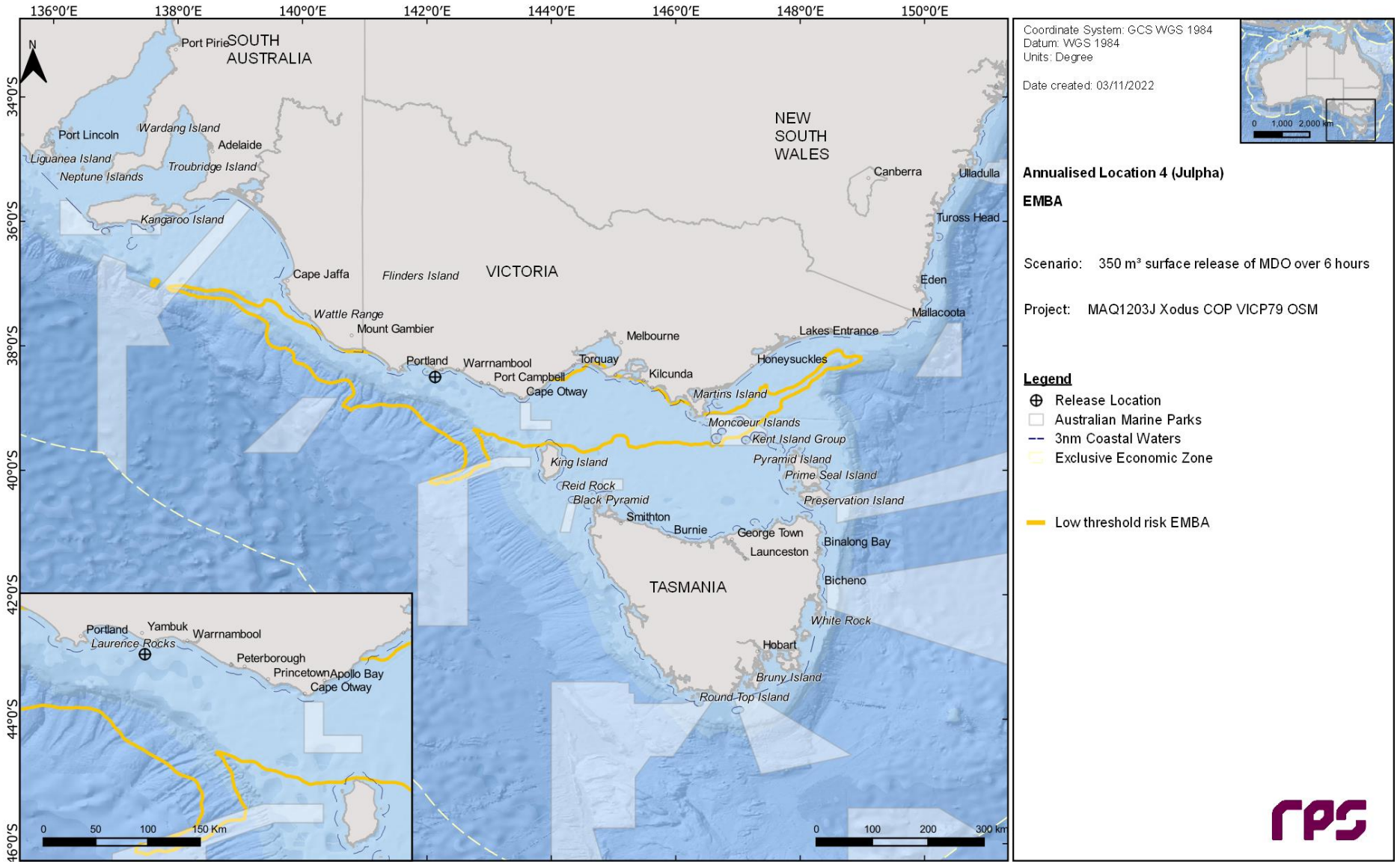


Figure 20.1 Predicted low threshold EMBA from a vessel collision at Location 4. The annualised results were calculated from 200 spill simulations using the 'low' threshold exposure values for each of the modelled oil components.

20.2 Stochastic Analysis

20.2.1 Floating Oil Exposure

Table 20.1 summarises the maximum distances and directions travelled by the floating oil from the release location at each threshold for each season.

Table 20.2 summarises the potential floating oil exposure to individual receptors for each season.

Figure 20.2 to Figure 20.3 illustrate the extent of floating oil exposure for each season.

The simulation that resulted in the largest swept area of floating oil exposure at or above the low threshold during winter and summer was 187.0 km^2 and 151.4 km^2, respectively.

Table 20.1 Maximum distances and directions travelled by floating oil from a vessel collision at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential floating oil exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	49.4	17.1	5.7
	Maximum distance (km) from release location (99^{th} percentile)	39.8	16.1	5.7
	Direction	E	E	E
Winter	Maximum distance (km) from release location	62.3	20.7	3.0
	Maximum distance (km) from release location (99^{th} percentile)	42.9	19.6	3.0
	Direction	E	ESE	SSW

Table 20.2 Summary of the potential exposure by floating oil to individual receptors from a vessel collision at Location 4 for each season. Results were calculated from 100 spill simulations per season.

Receptor		Summer						Winter					
		Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)			Probability of floating oil exposure (%)			Minimum time before floating oil exposure (days)		
		Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
IBRA	Warrnambool Plain	-	-	-	-	-	-	2	-	-	2.21	-	-
IMCRA	Otway	100	100	26	0.04	0.04	0.04	100	100	19	0.04	0.04	0.04
KEF	Bonney Coast Upwelling	35	9	-	0.17	0.21	-	19	4	-	0.21	0.54	-
State Waters	Victoria	20	5	-	0.33	0.5	-	16	-	-	0.54	-	-

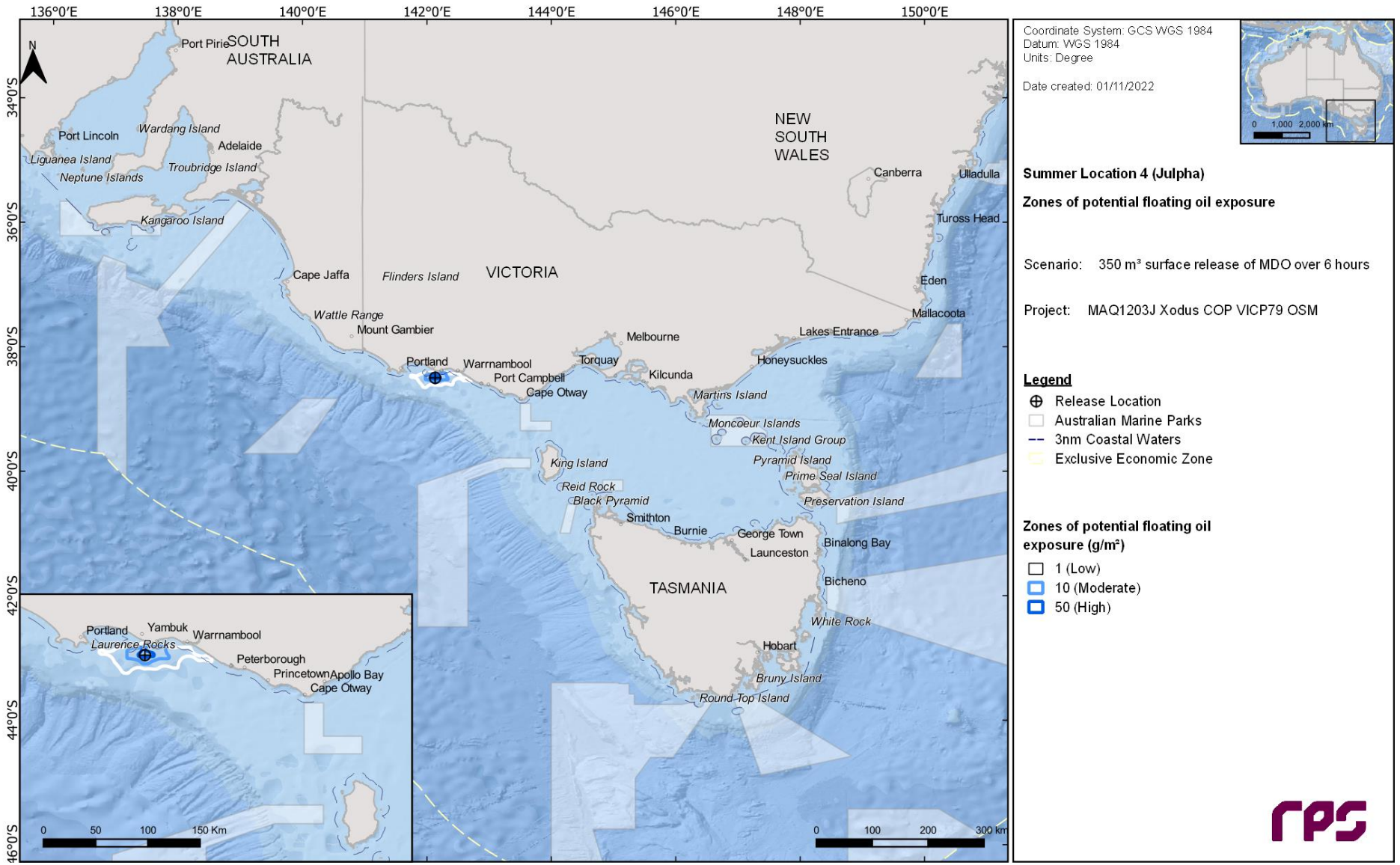


Figure 20.2 Zones of potential floating oil exposure from a vessel collision at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

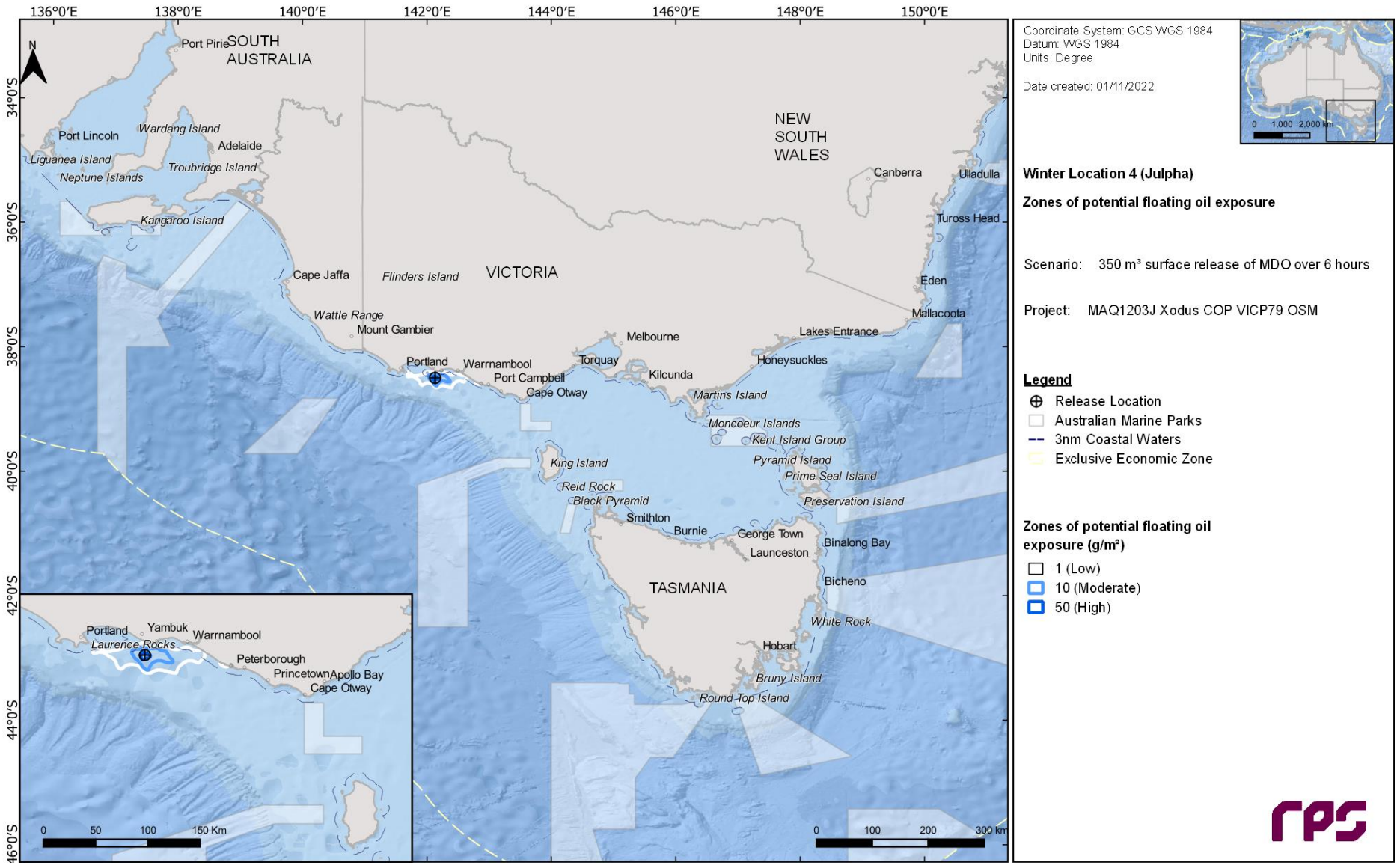


Figure 20.3 Zones of potential floating oil exposure from a vessel collision at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

20.2.2 Shoreline Accumulation

Table 20.3 summarises the predicted oil accumulation on any shoreline during each season.

Table 20.4 and Table 20.5 summarises the oil accumulation on individual shoreline receptors for each season.

The maximum potential shoreline loading for the specified thresholds for each season are presented in Figure 20.4 and Figure 20.5.

Table 20.3 Summary of oil accumulation on any shoreline from a vessel collision at Location 4 during each season. Results were calculated from 100 spill simulations per season.

Shoreline Statistics	Summer	Winter
Probability of accumulation on any shoreline (%) at or above the low threshold (10 g/m^2)	85	68
Absolute minimum time before oil ashore (days) at or above the low threshold (10 g/m^2)	1.33	1.08
Maximum volume of hydrocarbons ashore (m^3)	34.1	43.0
Average volume of hydrocarbons ashore (m^3)	5.4	9.5
Maximum length of the shoreline at **10 g/m^2** (km)	21	30
Average shoreline length (km) at **10 g/m^2** (km)	9.5	11.4
Maximum length of the shoreline at **100 g/m^2** (km)	11	10
Average shoreline length (km) at **100 g/m^2** (km)	2.5	4.5
Maximum length of the shoreline at **1,000 g/m^2** (km)	-	-
Average shoreline length (km) at **1,000 g/m^2** (km)	-	-

Table 20.4 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 4 during summer conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bass Coast	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Colac Otway	3	-	-	9.17	-	-	22	76	< 0.1	4.4	4.1	-	-	8.6	-	-
Corangamite	17	1	-	2.75	5.96	-	23	161	0.4	12.2	3.6	3.8	-	14.3	3.8	-
Glenelg	22	5	-	2.83	4.58	-	31	398	0.7	10.1	5.3	1.7	-	13.4	2.9	-
Kanowna Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Lady Julia Percy Island	19	3	-	1.54	3.17	-	55	212	0.2	2.5	1	1	-	1	1	-
Laurence Rocks	10	-	-	2.08	-	-	17	39	< 0.1	0.7	1.5	-	-	2.9	-	-
Mornington Peninsula	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Moyne	58	23	-	1.33	1.42	-	43	924	3.5	33.8	7.5	2.5	-	19.1	10.5	-
Norman Island	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Skull Rock	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
South Gippsland	1	-	-	21.88	-	-	14	14	1.1	1.1	1.9	-	-	1.9	-	-
Surf Coast	-	-	-	-	-	-	-	-	< 0.1	< 0.1	-	-	-	-	-	-
Warrnambool	21	4	-	1.33	3.17	-	32	285	0.8	14.8	5.3	2.4	-	16.3	4.8	-

Table 20.5 Summary of oil accumulation on individual shoreline sectors from a vessel collision at Location 4 during winter conditions. Results were calculated from 100 spill simulations per season.

Shoreline sector	Maximum probability of shoreline accumulation (%)			Minimum time before shoreline accumulation (days)			Load on shoreline (g/m^2)		Volume on shoreline (m^3)		Mean length of shoreline accumulation (km)			Maximum length of shoreline accumulation (km)		
	Low	Mod	High	Low	Mod	High	Mean	Peak	Mean	Peak	Low	Mod	High	Low	Mod	High
Anser Island	1	-	-	23.25	-	-	14	14	0.2	0.2	1	-	-	1	-	-
Bass Coast	1	-	-	15	-	-	25	35	0.9	0.9	2.9	-	-	2.9	-	-
Colac Otway	21	3	-	3.75	4.46	-	30	490	1.3	32.9	6.7	5.1	-	20.1	9.6	-
Corangamite	35	7	-	1.71	2.46	-	35	376	1.8	14.2	6	3	-	17.2	5.7	-
Glenelg	3	-	-	4.08	-	-	25	71	0.2	7.3	10.2	-	-	20.1	-	-
Kanowna Island	2	-	-	21.13	-	-	21	24	< 0.1	0.3	1	-	-	1	-	-
Lady Julia Percy Island	8	3	-	1.08	1.17	-	123	371	0.2	4.3	1	1	-	1	1	-
Laurence Rocks	2	1	-	3.04	3.42	-	63	177	< 0.1	3.5	2.9	1	-	2.9	1	-
Mornington Peninsula	1	-	-	20.29	-	-	11	11	1.1	1.1	1	-	-	1	-	-
Moyne	36	15	-	1.42	1.71	-	81	859	5.4	43	7.2	4.9	-	19.1	8.6	-
Norman Island	1	-	-	19.58	-	-	26	26	0.7	0.7	2.9	-	-	2.9	-	-
Skull Rock	2	-	-	21.13	-	-	21	24	< 0.1	0.3	1	-	-	1	-	-
South Gippsland	3	-	-	19.67	-	-	13	18	< 0.1	1.2	2.9	-	-	4.8	-	-
Surf Coast	1	-	-	10.79	-	-	13	13	< 0.1	1.9	1.9	-	-	1.9	-	-
Warrnambool	12	3	-	1.42	1.75	-	47	521	0.7	14.4	5.8	2.5	-	14.3	3.8	-

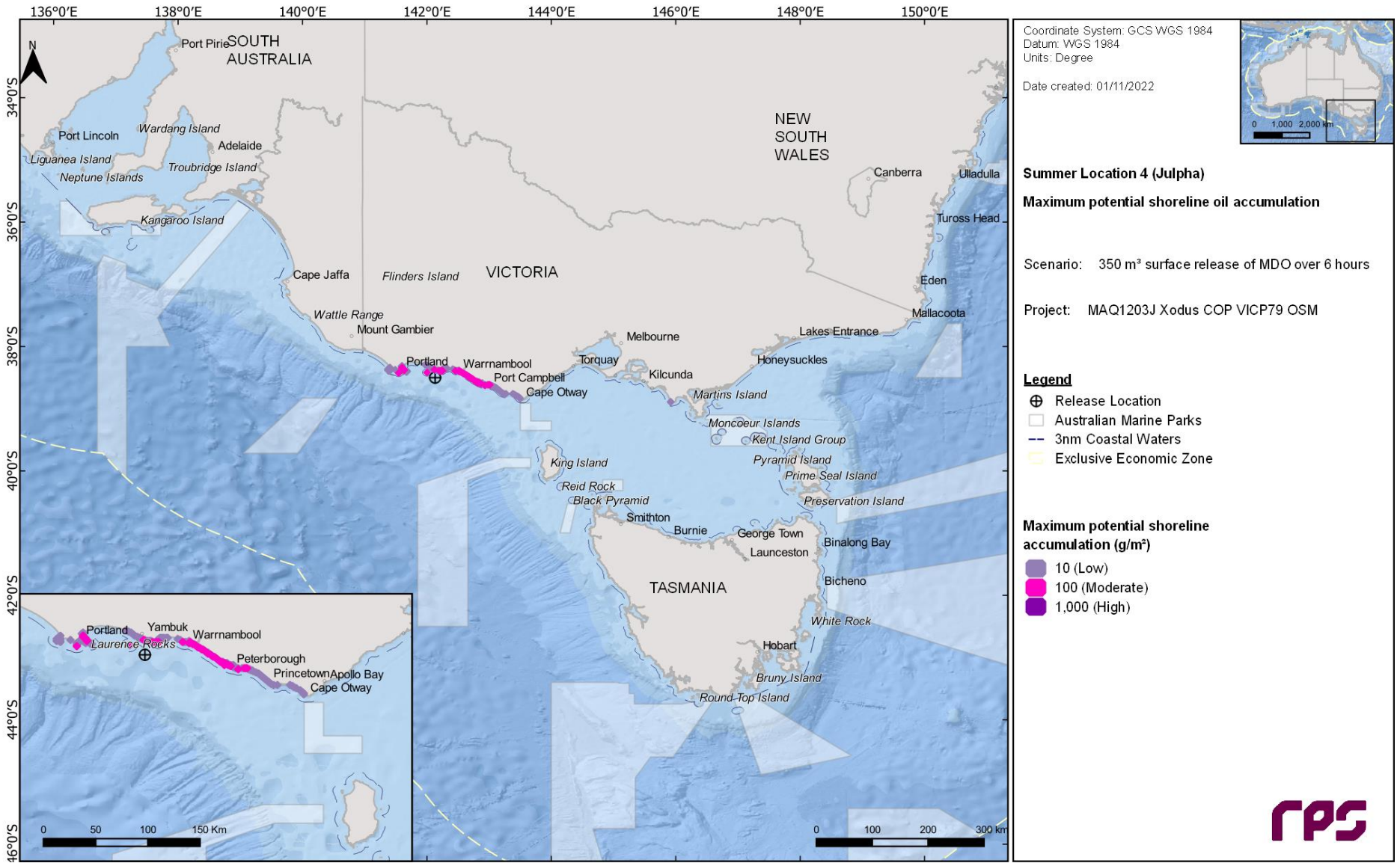


Figure 20.4 Maximum potential shoreline loading from a vessel collision at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

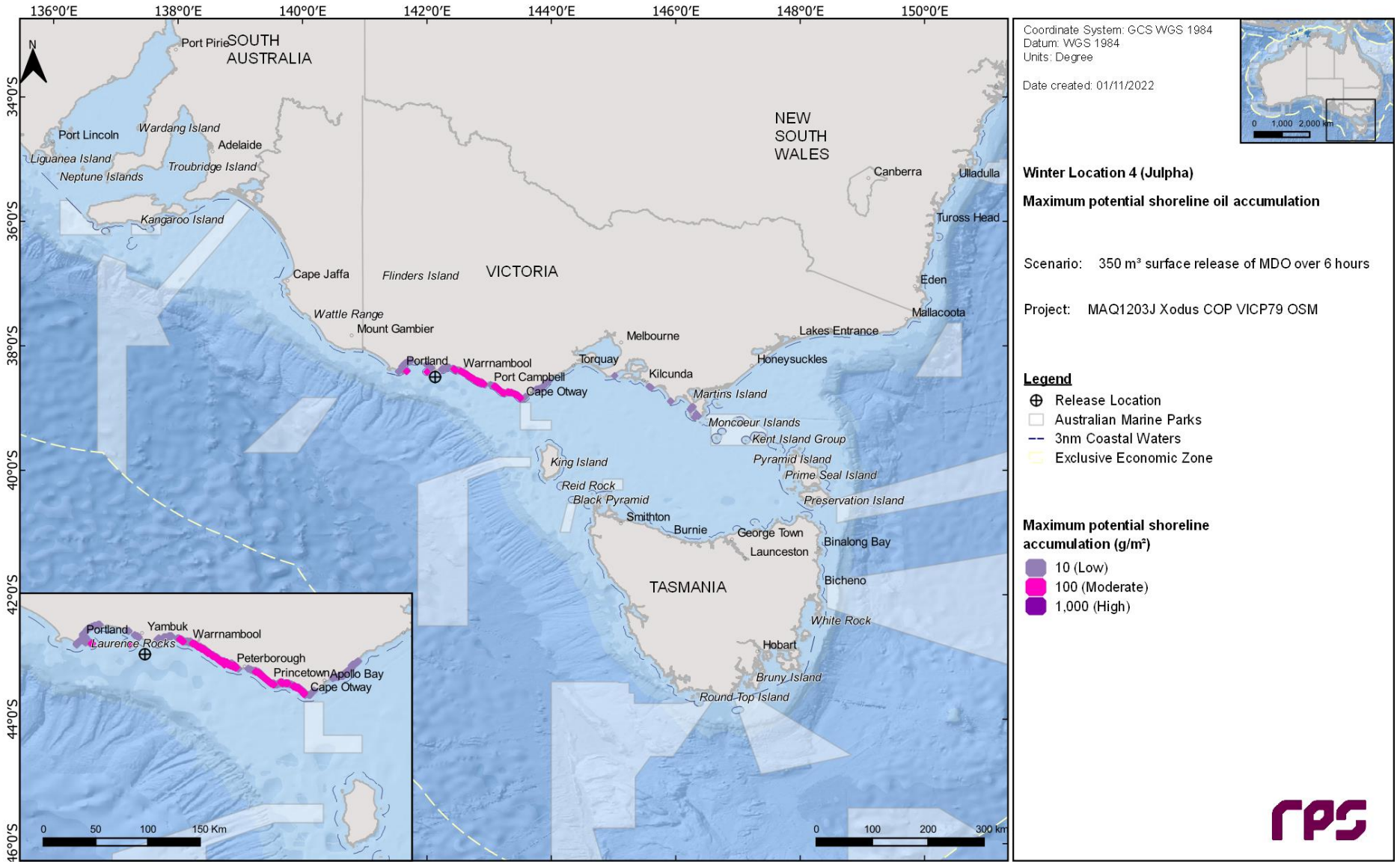


Figure 20.5 Maximum potential shoreline loading from a vessel collision at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

20.2.3 In-water exposure

20.2.3.1 Dissolved Hydrocarbons

Table 20.6 summarises the maximum distances and directions travelled by dissolved hydrocarbons from the release location to each threshold, in the 0 – 10 m depth layer.

Table 20.7 summarises the potential exposure to receptors from dissolved hydrocarbons in the 0 – 10 m for each threshold and season.

Figure 20.6 and Figure 20.7 illustrate the extent of dissolved hydrocarbon exposure during summer and winter, respectively, in the 0-10 m depth layers.

Table 20.6 Maximum distance and direction by dissolved hydrocarbon exposure (0-10 m) from a vessel collision at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential dissolved hydrocarbon exposure		
		Low	Moderate	High
Summer	Maximum distance (km) from release location	66	1	-
	Maximum distance (km) from release location (99th percentile)	54	1	-
	Direction	W	E	-
Winter	Maximum distance (km) from release location	119	24	-
	Maximum distance (km) from release location (99th percentile)	89	24	-
	Direction	ESE	E	-

Table 20.7 Probability of dissolved hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer				Winter			
		Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure			Maximum concentration (ppb)	Probability of instantaneous dissolved hydrocarbon exposure		
			Low	Moderate	High		Low	Moderate	High
IBRA	Warrnambool Plain	17	1	-	-	22	2	-	-
IMCRA	Otway	55	49	1	-	64	43	1	-
KEF	Bonney Coast Upwelling	37	8	-	-	30	5	-	-
MNP	Twelve Apostles	5	-	-	-	12	1	-	-
State Waters	Victoria	27	2	-	-	28	4	-	-

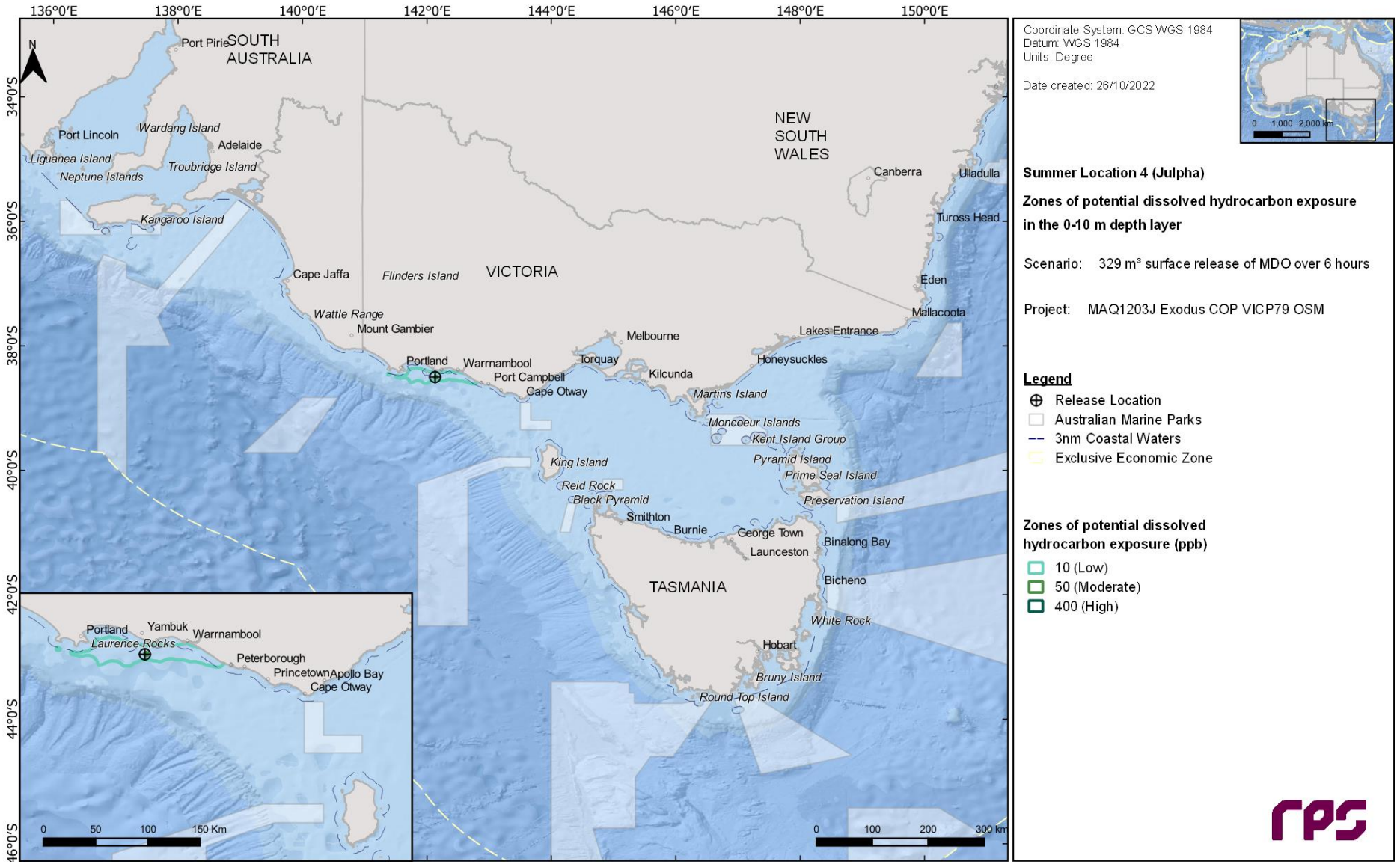


Figure 20.6 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

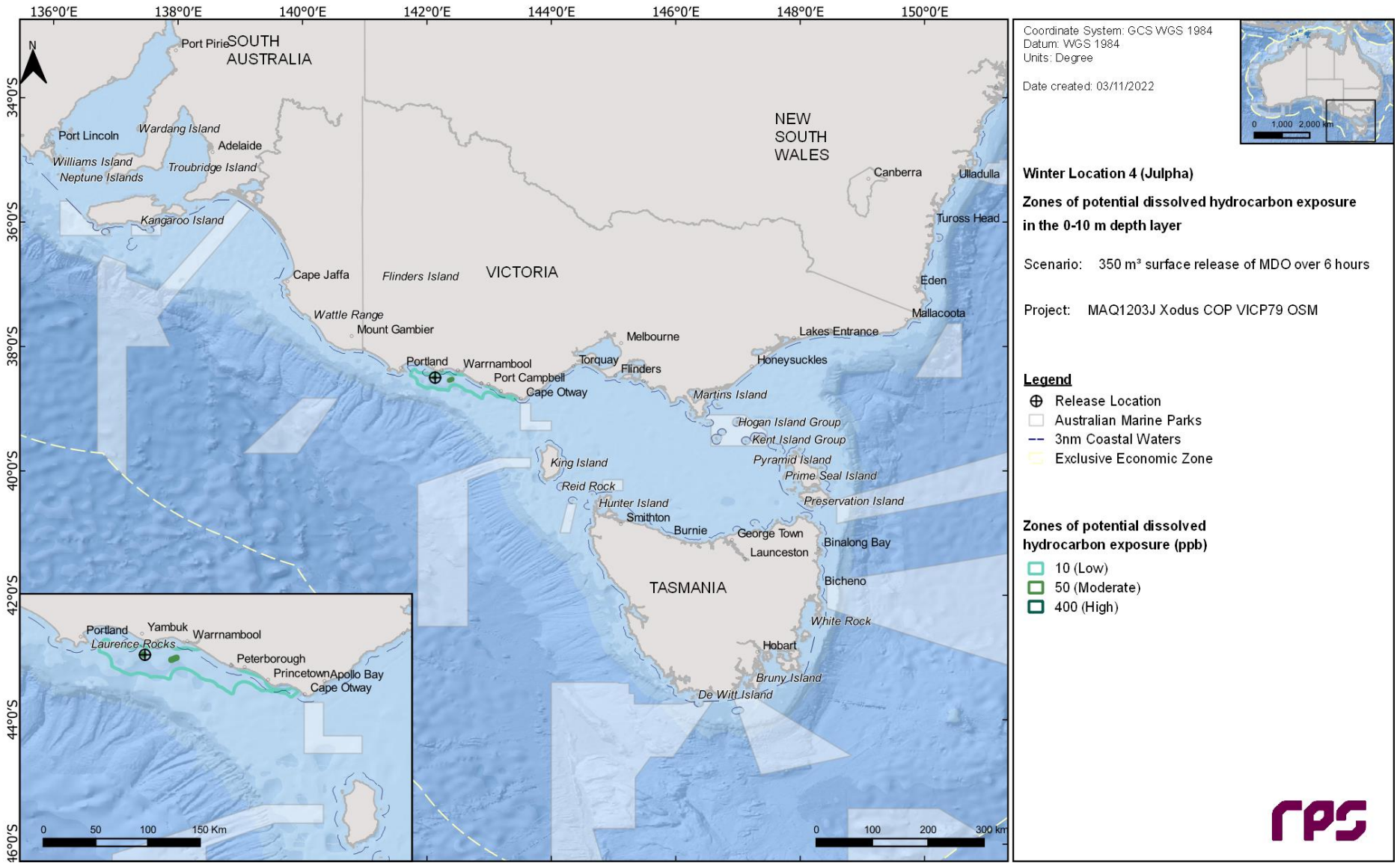


Figure 20.7 Zones of potential dissolved hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

20.2.3.2 Entrained Hydrocarbons

Table 20.8 summarises the maximum distances and directions travelled by entrained hydrocarbons within the 0-10 m depth layer.

Table 20.9 summarises the potential exposure to receptors from entrained hydrocarbons in the 0-10 m depth layers, for each season.

Figure 20.8 and Figure 20.9 illustrate extent of entrained hydrocarbon exposure for each season in the 0-10 m depth layer.

Table 20.8 Maximum distance and direction by entrained hydrocarbon exposure (0-10 m) from a vessel collision at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Season	Distance and direction travelled	Zones of potential entrained hydrocarbon exposure	
		Low	High
Summer	Maximum distance (km) from release location	434	137
	Maximum distance (km) from release location (99^{th} percentile)	364	125
	Direction	WNW	W
Winter	Maximum distance (km) from release location	598	206
	Maximum distance (km) from release location (99^{th} percentile)	562	196
	Direction	E	E

Table 20.9 Probability of entrained hydrocarbons exposure to receptors in the 0-10 m depth layer from a vessel collision at Location 4 for each threshold and season. Results were calculated from 100 spill simulations per season.

Receptor		Summer			Winter		
		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure		Maximum concentration (ppb)	Probability of instantaneous entrained hydrocarbon exposure	
			Low	High		Low	High
AMP	Apollo	46	5	-	212	43	3
	Beagle	-	-	-	26	6	-
	Murray	12	1	-	-	-	-
	Zeehan	14	1	-	-	-	-
IBRA	Bridgewater	225	20	3	74	4	-
	Flinders	-	-	-	26	2	-
	Gippsland Plain	10	1	-	26	3	-
	Glenelg Plain	254	28	7	162	6	1
	Otway Plain	82	8	-	204	47	4
	Otway Ranges	71	10	-	145	56	3
	Warrnambool Plain	710	50	16	711	59	20
	Wilsons Promontory	7	-	-	28	7	-
IMCRA	Central Bass Strait	36	3	-	210	31	5
	Central Victoria	46	4	-	171	38	3
	Coorong	16	1	-	-	-	-
	Flinders	7	-	-	29	7	-
	Otway	5,773	99	94	4,730	96	90
	Twofold Shelf	-	-	-	26	5	-
	Victorian Embayments	6	-	-	24	1	-
KEF	Bonney Coast Upwelling	2,194	63	44	1,848	28	20
	Upwelling East of Eden	-	-	-	14	2	-
	West Tasmania Canyons	26	1	-	15	1	-
MNP	Bunurong	8	-	-	12	2	-
	Discovery Bay	64	13	-	19	1	-
	Port Phillip Heads	-	-	-	18	1	-
	Twelve Apostles	114	20	1	405	60	13
	Wilsons Promontory	4	-	-	23	7	-
MP	Lower South East	13	1	-	-	-	-
MS	Marengo Reefs	11	1	-	28	4	-
	Merri	273	36	2	201	12	2
	The Arches	165	20	1	134	40	3
Nearshore Waters	Anser Island	1	-	-	17	6	-
	Bass Coast	9	-	-	17	1	-
	Colac Otway	82	9	-	204	52	4
	Corangamite	322	32	3	292	58	16
	Curtis Island	-	-	-	17	1	-
	Glenelg	254	28	7	162	6	1
	Glennie Group	4	-	-	16	6	-

	Grant	13	1	-	-	-	-
	Greater Geelong	1	-	-	11	1	-
	Hogan Island Group	-	-	-	26	2	-
	Kanowna Island	1	-	-	19	7	-
	Lady Julia Percy Island	1,004	47	21	345	10	5
	Laurence Rocks	377	33	9	193	6	2
	Moncoeur Islands	-	-	-	28	7	-
	Mornington Peninsula	2	-	-	26	1	-
	Moyne	710	50	16	711	50	20
	Mud Island	-	-	-	12	1	-
	Norman Island	7	-	-	14	3	-
	Phillip Island	8	-	-	17	3	-
	Rodondo Island	-	-	-	25	6	-
	Shellback Island	7	-	-	12	1	-
	Skull Rock	1	-	-	20	7	-
	South Gippsland	10	1	-	15	5	-
	Surf Coast	2	-	-	16	1	-
	Warrnambool	637	48	11	588	22	7
NPS4	Bunurong Marine Park	8	-	-	15	1	-
	Wilsons Promontory Marine Park	7	-	-	13	1	-
	Wilsons Promontory Marine Reserve	4	-	-	16	5	-
Ramsar	Glenelg Estuary and Discovery Bay Wetlands	24	4	-	1	-	-
RSB	Bravenes Rock	53	9	-	177	51	3
	Cody Bank	3	-	-	13	3	-
	Cutter Rock	-	-	-	16	2	-
	Cody Bank	39	27	-	41	30	-
	Cutter Rock	45	32	-	53	66	-
	Endeavour Reef	32	14	-	32	57	-
	New Zealand Star Bank	16	8	-	29	34	-
	Wakitipu Rock	27	15	-	34	62	-
	Warrego Rock	20	7	-	35	49	-
	Wright Rock	38	13	-	30	63	-
State Waters	South Australia	21	2	-	-	-	-
	Tasmania	-	-	-	26	5	-
	Victoria	1,474	60	29	1,227	65	27

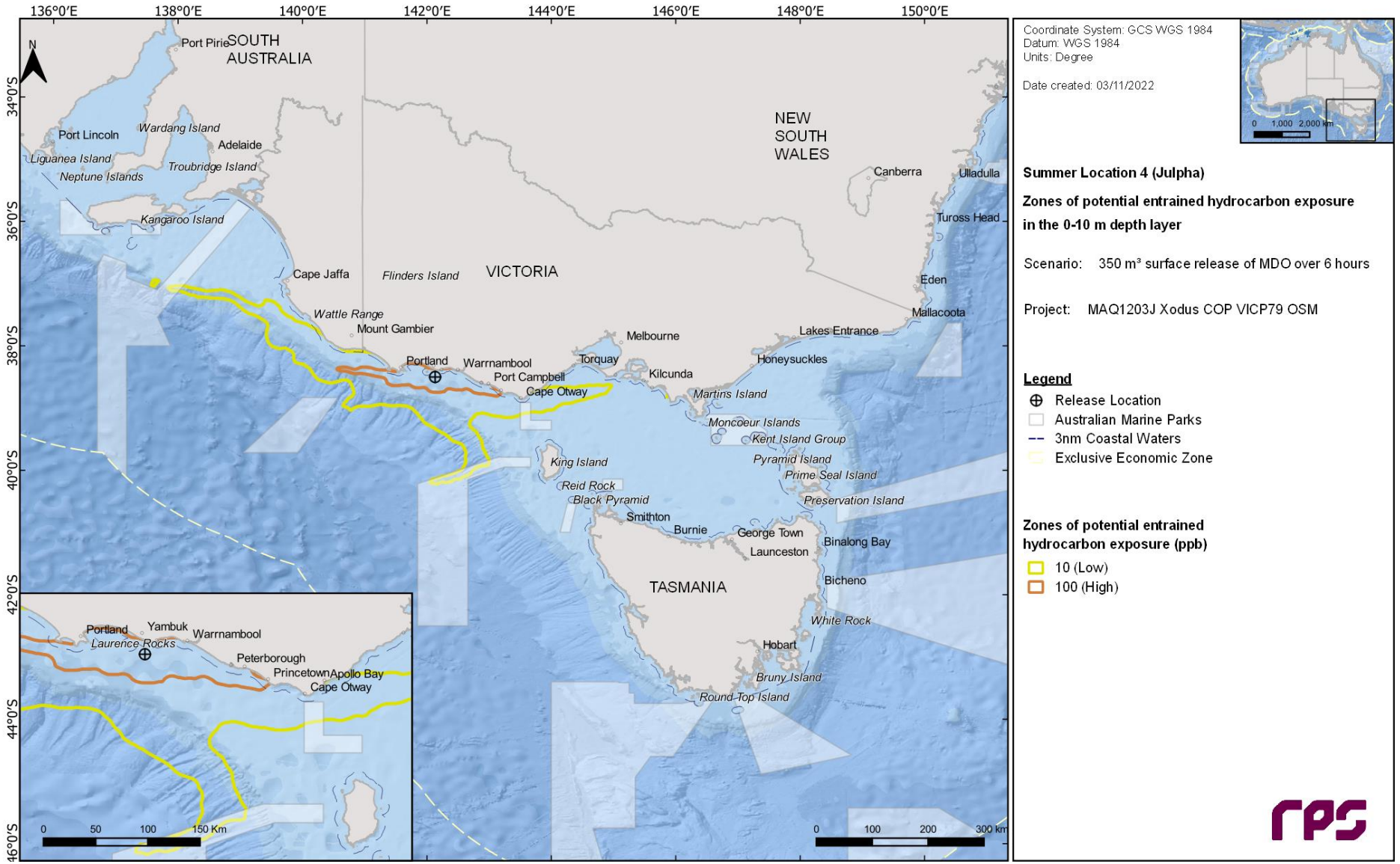


Figure 20.8 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 4 during summer conditions. The results were calculated from 100 spill simulations.

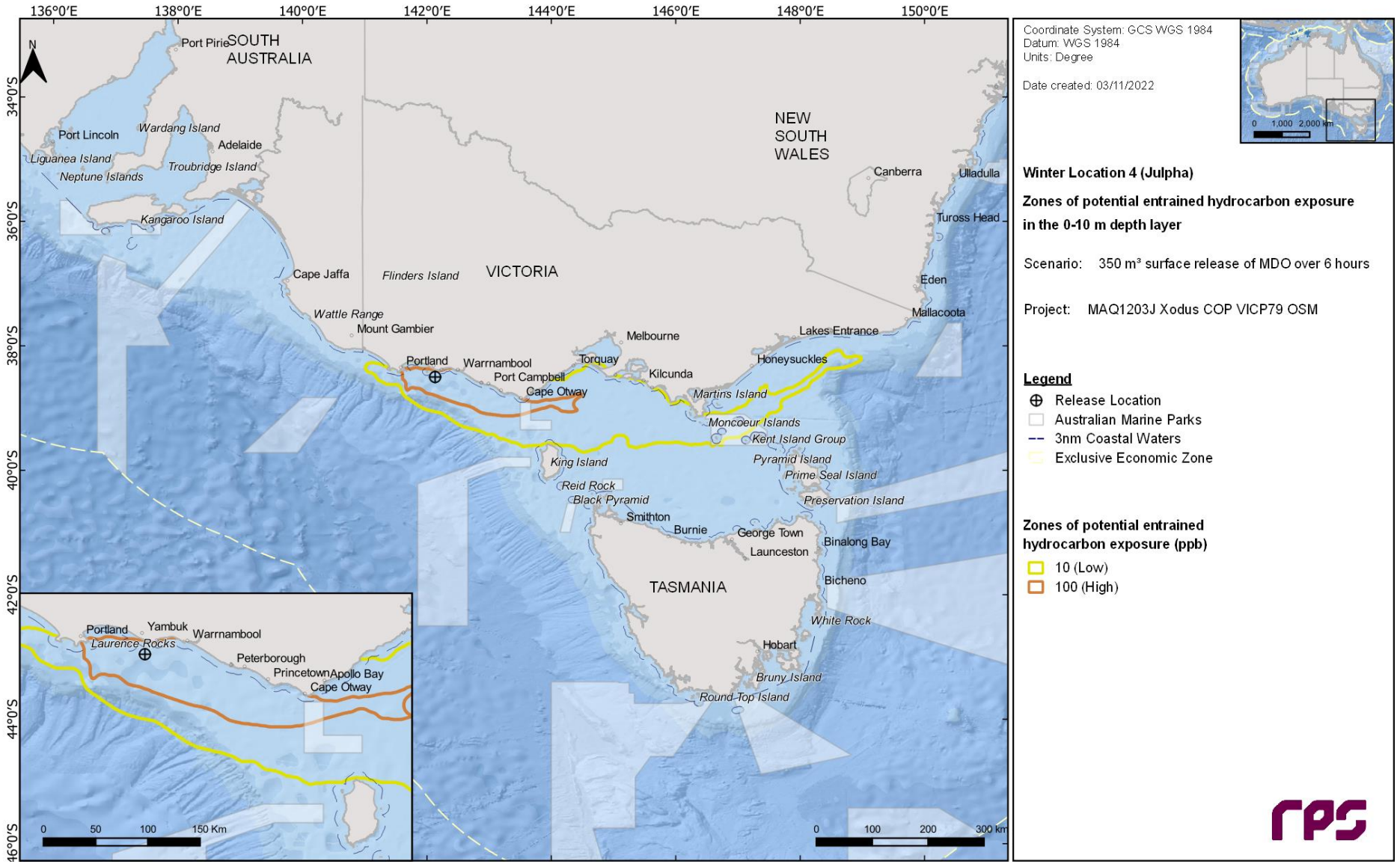


Figure 20.9 Zones of potential entrained hydrocarbon exposure at 0-10 m below the sea surface from a vessel collision at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

20.3 Deterministic Analysis

20.3.1 Largest Volume of Hydrocarbons Ashore

The simulation that resulted in the largest volume of hydrocarbons ashore was identified as run number 94 and commenced during winter conditions, 1 pm 1st August 2015.

Figure 20.10 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days). Initial shoreline accumulation occurred on day 2.

The extent of the predicted entrained and dissolved hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 20.11 and Figure 20.12, respectively.

Figure 20.13 presents the fates and weathering for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 155 m^3 (~44%) was lost to the atmosphere through evaporation. Approximately, 100 m^3 (~29%) of the released volume decayed, while approximately 60 m^3 (~17%) was predicted to remain within the water column and approximately 35 m^3 (~10%) was present on the shorelines.

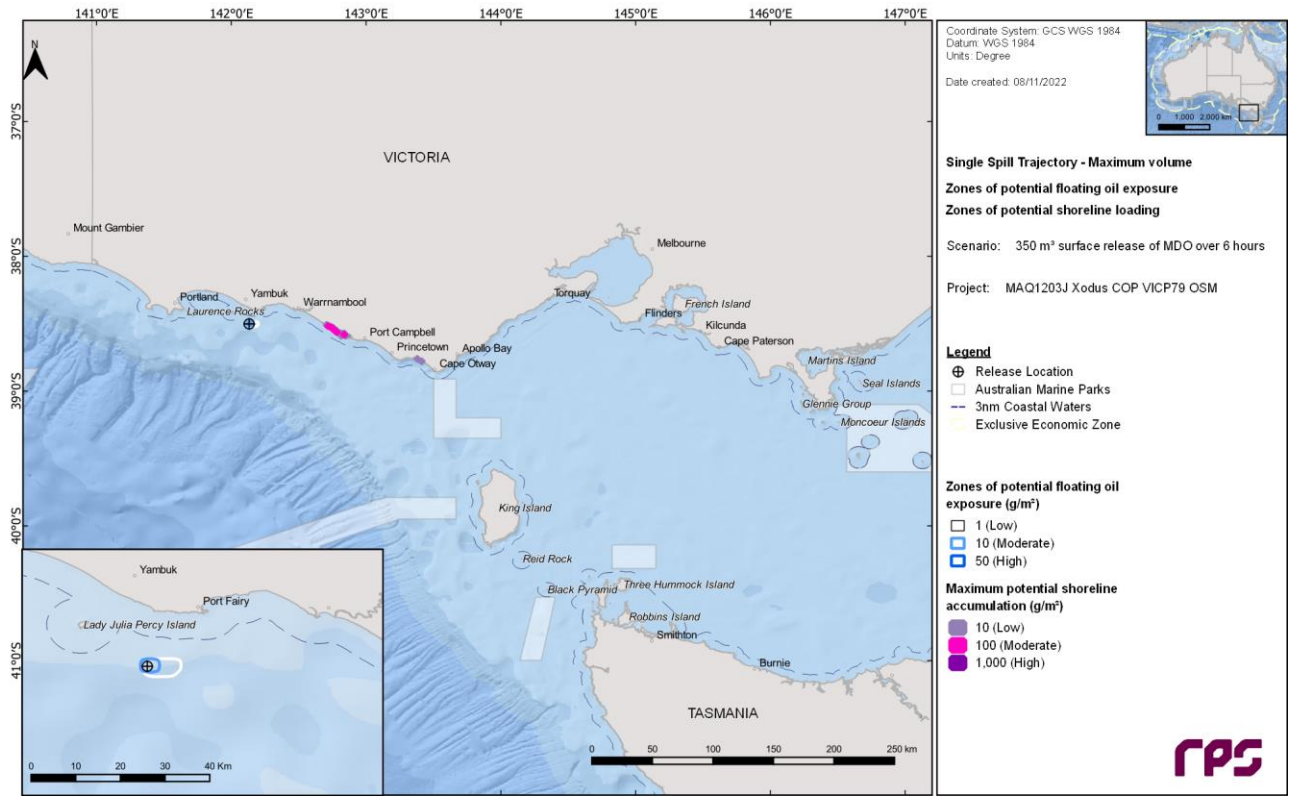


Figure 20.10 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 4.

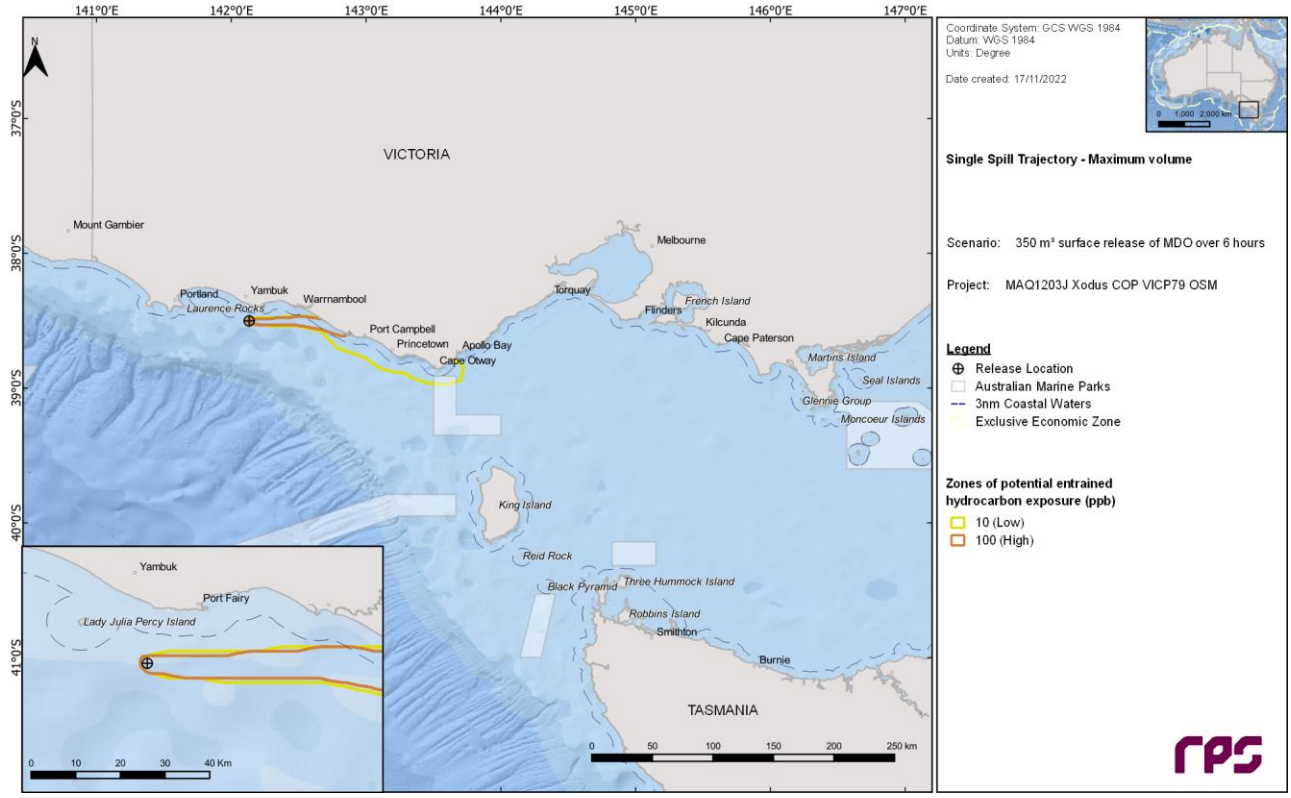


Figure 20.11 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 4.

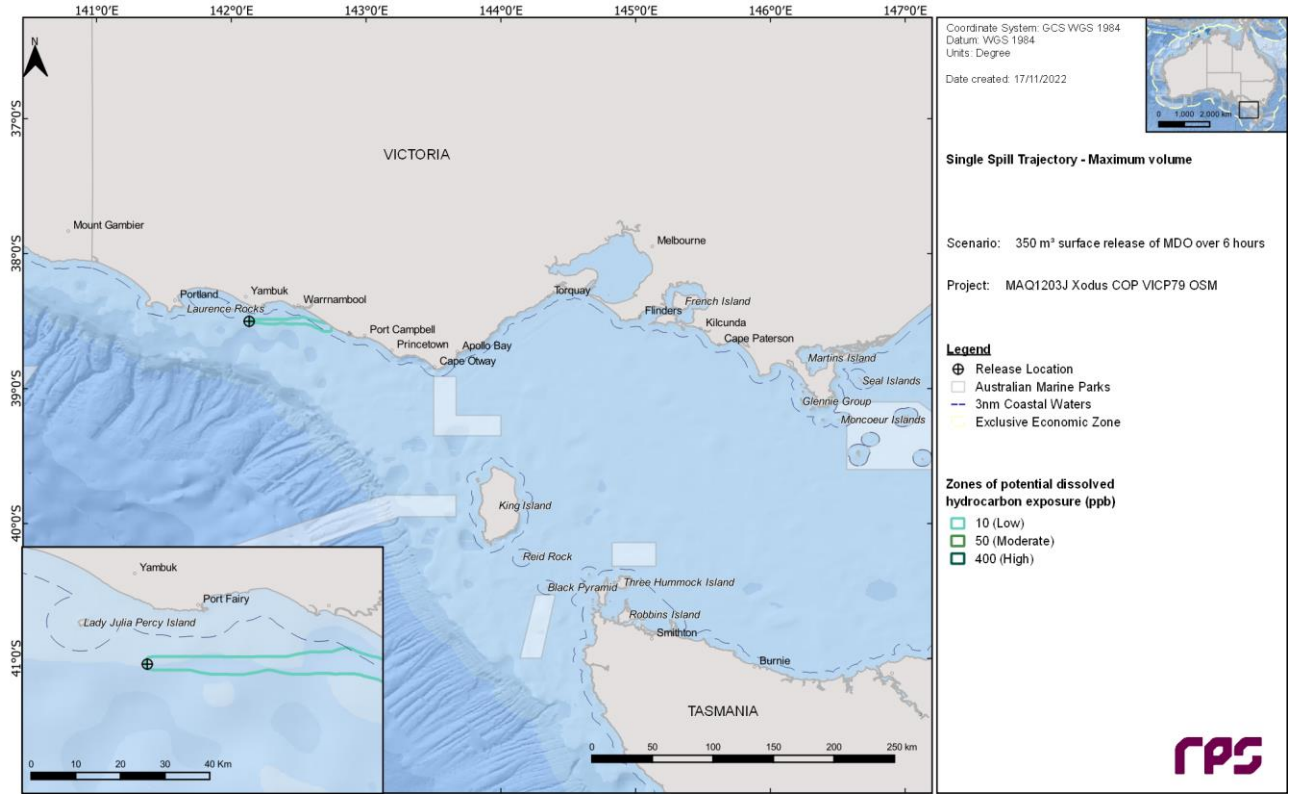


Figure 20.12 Predicted extent of the dissolved hydrocarbons exposure over the entire 30 days for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 4.

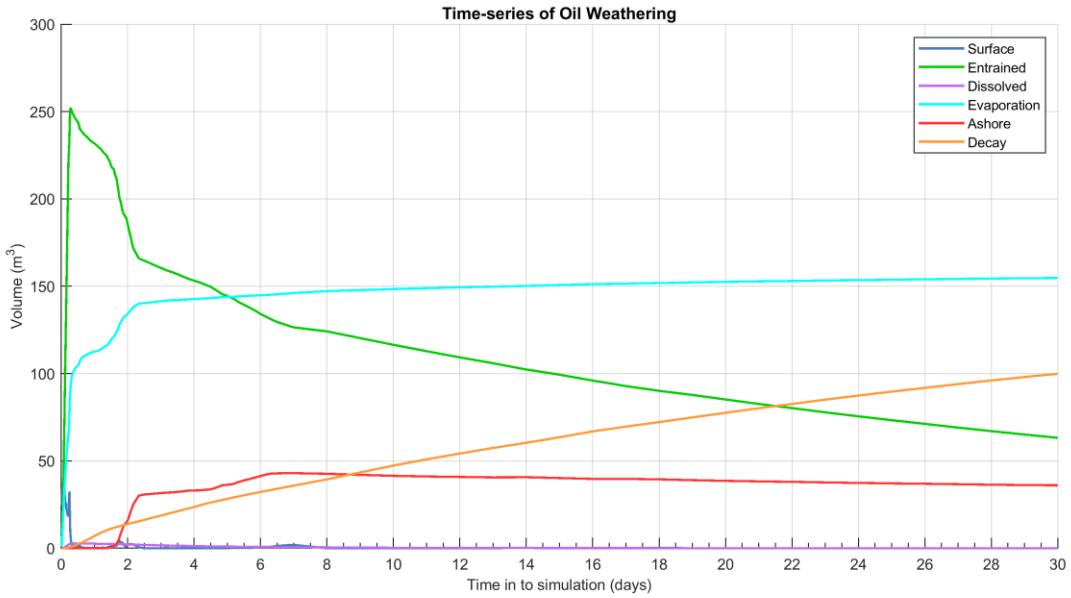


Figure 20.13 Predicted weathering and fates for the simulation that led to the largest volume of hydrocarbons ashore from a vessel collision at Location 4.

20.3.2 Minimum time to Shoreline Accumulation

The simulation that resulted in the minimum time to hydrocarbons ashore of 1.08 days was identified as run number 11 which commenced during winter conditions, 6 am 7th June 2014.

Figure 20.14 presents the extent of the predicted floating oil exposure zones on the sea surface (swept area) and the shoreline loading over the entire simulation (30 days).

The extent of the predicted entrained hydrocarbon exposure zones in the 0–10 m depth layer over the entire 30 day simulation are presented in Figure 20.15. No dissolved hydrocarbon exposure was predicted above the low threshold.

Figure 20.16 presents the fates and weathering graph for the corresponding simulation. At the conclusion of the simulation (day-30), approximately 155 m^3 (~45%) was lost to the atmosphere through evaporation. Approximately, 110 m^3 (~32%) of the released volume decayed, while approximately 80 m^3 (~23%) was predicted to remain within the water column and approximately 3 m^3 (~1%) remained on shorelines.

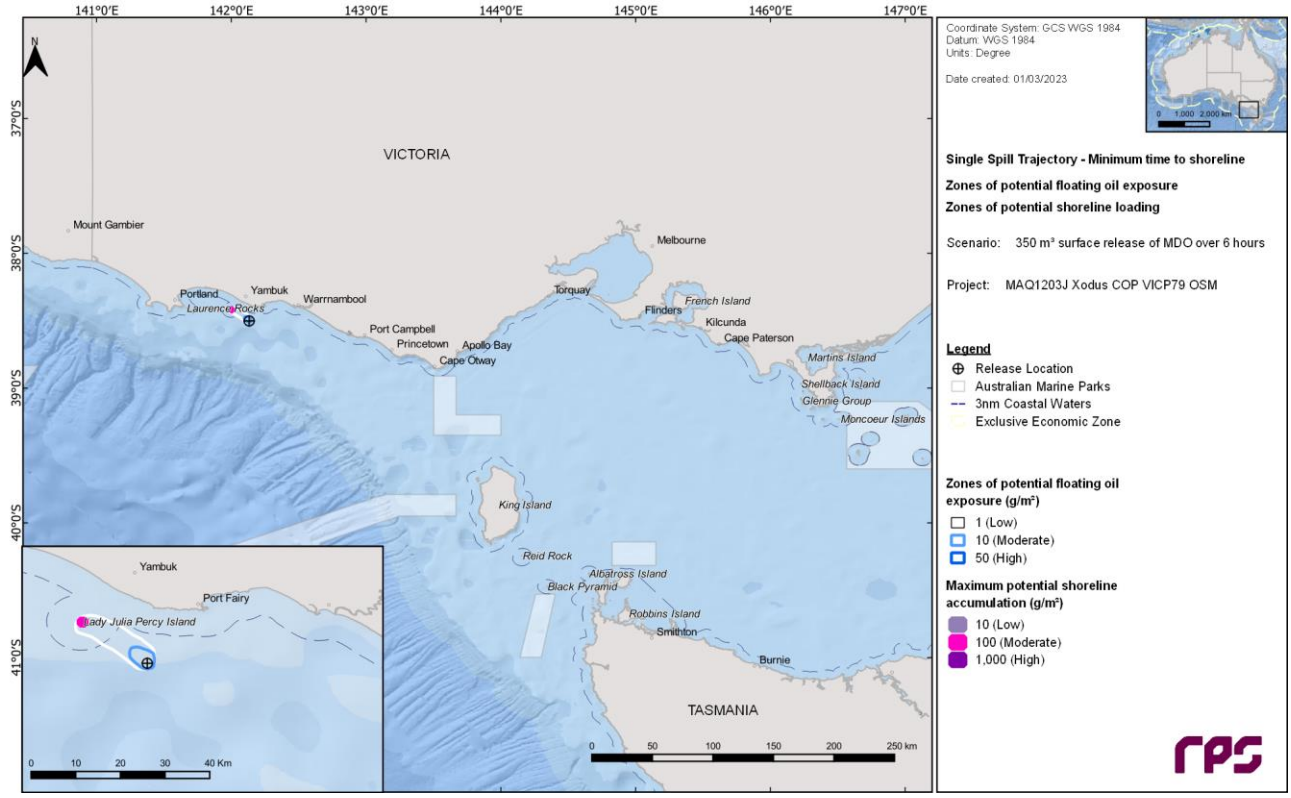


Figure 20.14 Predicted extent of the floating oil exposure and shoreline loading over the entire 30 days for the simulation that led to the minimum time to shoreline accumulation from a vessel collision at Location 4.

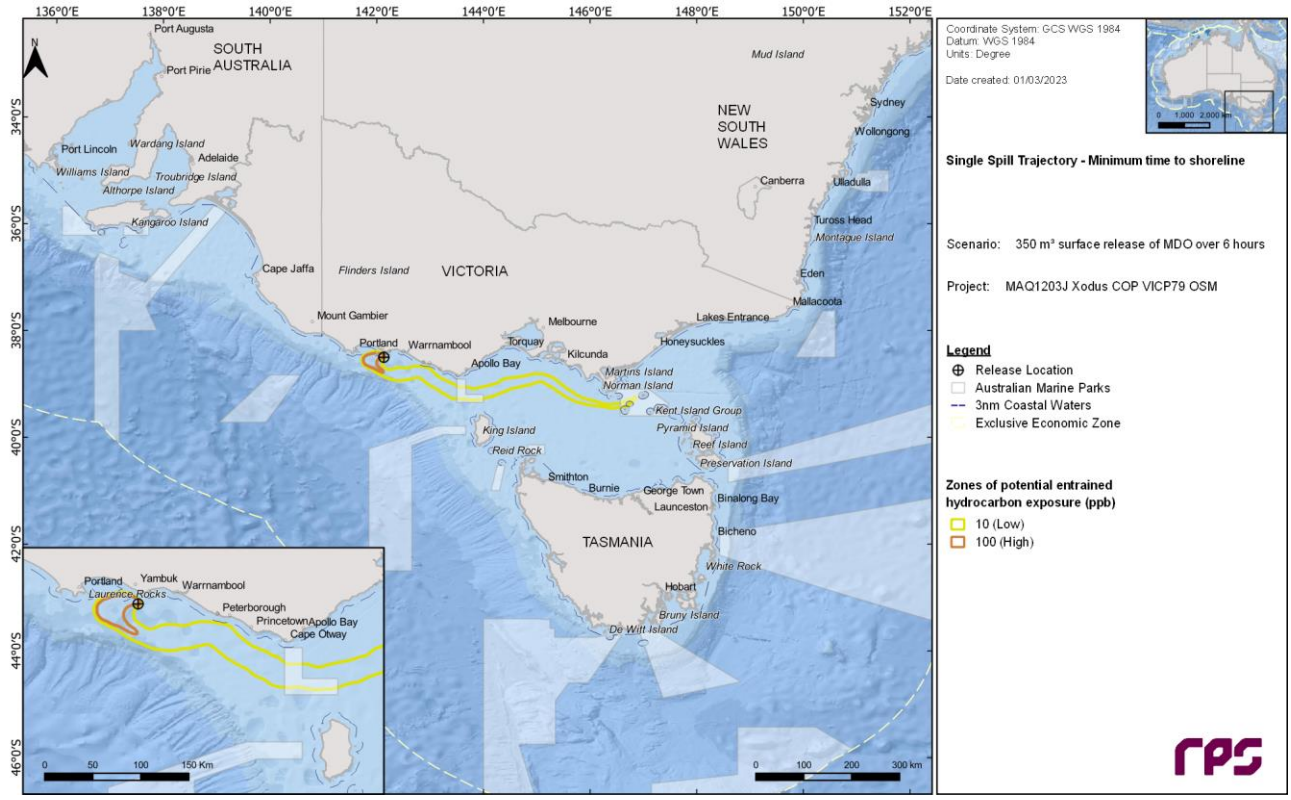


Figure 20.15 Predicted extent of the entrained hydrocarbons exposure over the entire 30 days for the simulation that led to the minimum time to shoreline accumulation from a vessel collision at Location 4.

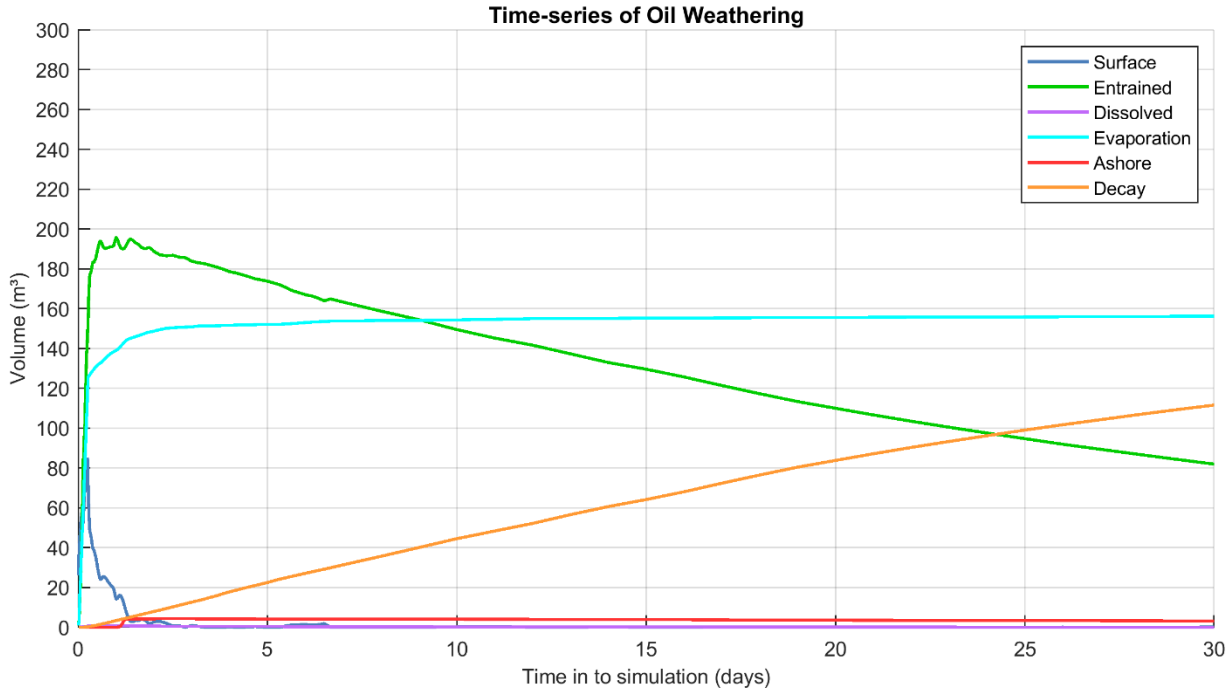


Figure 20.16 Predicted weathering and fates for the simulation that led to the minimum time to shoreline accumulation from a vessel collision at Location 4.

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APPENDIX F LIGHT MODELLING REPORTS

ConocoPhillips Australia

Otway Exploration Drilling Campaign

Line of Sight Assessment and Light Modelling for VIC/P79 Northern Extent

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EXECUTIVE SUMMARY

This technical report presents the results of the visible line of sight and light intensity (illuminance) assessments for ConocoPhillips Australia's (ConocoPhillips) Otway Exploration Drilling Campaign (Exploration Campaign). This light modelling study was conducted for the Exploration Campaign within the northern part of petroleum title VIC/P79 (VIC/P79N). The sources of light emissions considered were the lights and flare from the mobile offshore drilling unit (MODU). The lights on the MODU facility include the main deck light, process module lights, lighting on the drill rig and the navigation lights on the derrick. The light that come from the flaring during well testing was considered at a maximum flare rate of 40 MMscfd.

The threshold for the spatial extent of visible light that is predicted to occur from the Exploration Campaign was defined as whether any part of the facility is visible as a dot on the horizon (visible line of sight assessment). The threshold for the spatial extent of a measurable change in ambient light that is predicted to occur from the Exploration Campaign was defined as an illuminance equivalent to ambient light on a moonless clear night sky/new moon (<0.001 lux). The area within these thresholds is considered relevant to the impact assessment for planned light emissions from the Exploration Campaign.

The results of visible line of sight assessment conclude that the MODU lights and flare will be visible from a distance of 45 km from receptors at sea level while, due to elevations on the mainland, the MODU will be visible from the Victorian mainland adjacent to the project area.

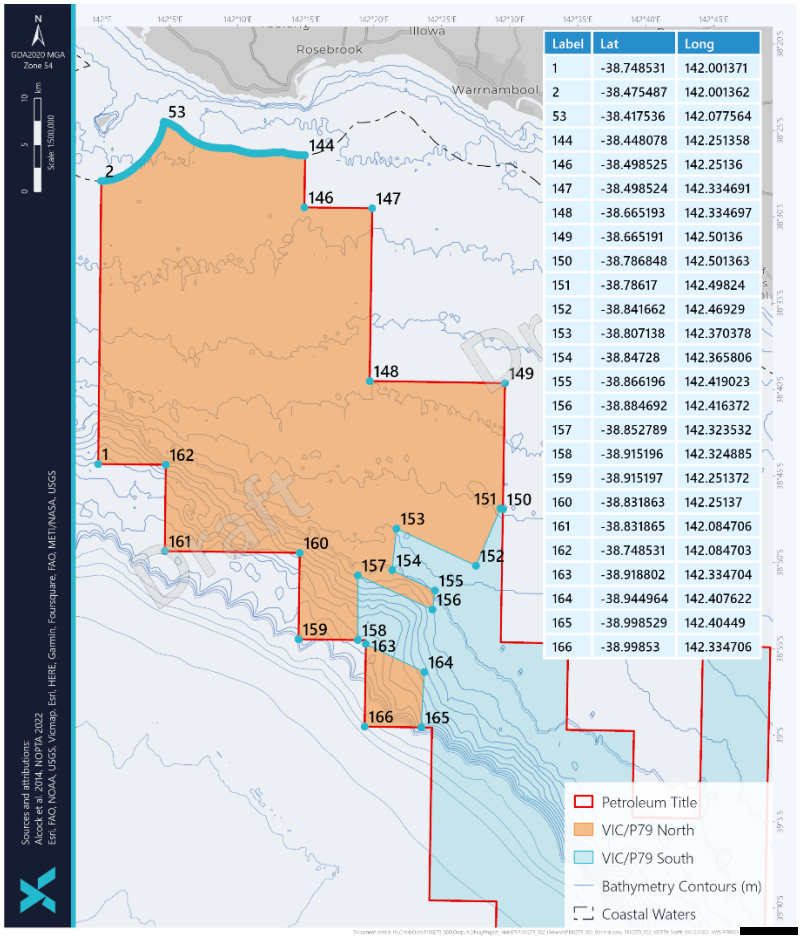
Light intensity (illuminance) assessment indicates that during flaring, a measurable change will occur up to 49 km from the expected position of the MODU and reduces to 9 km from the MODU when not flaring. The light intensity results also show that the light intensity levels of the MODU at Yambuk Nature Conservation Reserve (6 km) and its nearby towns are comparable to the ambient light levels less than a full moon (< 0.1 lux) when flaring and less than a quarter moon (<0.01 lux) when not flaring.

At other selected receptor locations of Mepunga Coastal Reserve (24 km), Yambuk Coastal Reserve (24 km), Discovery Bay Marine National Park (40 km), Twelve Apostles Marine National Park (53 km), and the nearby towns, the light intensity levels are comparable to the ambient light levels less than a quarter moon (<0.01 lux) when flaring, and less than a moonless clear night sky (<0.001 lux) when not flaring. A Zone of Theoretical Visibility analysis is thus recommended to quantify the visual impact and provide a communication tool to the relevant stakeholders.

1 INTRODUCTION

1.1 Project Overview

The Otway Exploration Drilling Campaign is located adjacent to the largest gas fields in the offshore Otway Basin, Thylacine and Geographe. ConocoPhillips Australia (ConocoPhillips) plan to execute an exploration well drilling campaign within the northern part of VIC/P79 (denoted as Vic/P79N), as shown in Figure 1-1. This report presents the light modelling study for the Exploration Campaign within VIC/P79N.



Label	Lat	Long
1	-38.748531	142.001371
2	-38.475487	142.001362
53	-38.417536	142.077564
144	-38.448078	142.251358
146	-38.498525	142.25136
147	-38.498524	142.334691
148	-38.665193	142.334697
149	-38.665191	142.50136
150	-38.786848	142.501363
151	-38.78617	142.49824
152	-38.841662	142.46929
153	-38.807138	142.370378
154	-38.84728	142.365806
155	-38.866196	142.419023
156	-38.884692	142.416372
157	-38.852789	142.323532
158	-38.915196	142.324885
159	-38.915197	142.251372
160	-38.831863	142.25137
161	-38.831865	142.084706
162	-38.748531	142.084703
163	-38.918802	142.334704
164	-38.944964	142.407622
165	-38.998529	142.40449
166	-38.99853	142.334706

Figure 1-1: Otway drilling light modelling scope for VIC/P79N.

1.2 Aim and Objectives

The purpose of this technical report is to present the assessment undertaken to estimate the artificial light emissions from the Exploration Campaign within VIC/P79N to inform environmental impact assessment and management planning of the Exploration Campaign. This study considered and assessed:

- the distances of receptors from the mobile offshore drilling unit (MODU),
- light sources and flaring from the MODU, and
- the light levels received at various receptor locations from facility lighting and well test flaring.

1.3 Scope

The sources of light emissions include:

- external facility lighting on MODU and vessels for safe navigation and working conditions, and
- flaring of excess associated gas which will be from a horizontal boom flare and will occur up to approximately 42 hours per event.

Both sources of light emissions are quantified and discussed in this technical report. The exact well locations are yet to be determined or may be subject to change. Therefore, all potential locations in VIC/P79N were considered for modelling (Figure 1-1).

The assessment included two sets of modelling:

- visible line of sight estimates, and
- light intensity (illuminance) modelling.

Line of sight estimates have been used as an indication of the distance that the facility and its lights may be visible while light intensity (illuminance) modelling has been used as an indication of the measurable change in ambient light conditions. These quantifications have been used to develop two types of area used for subsequent environmental impact analysis (Table 1-1).

Table 1-1: Predicted artificial light exposure and impact areas for the Exploration Campaign.

ARTIFICIAL LIGHT ASSESSMENT AREAS	DESCRIPTION
Visible Light Exposure Area	The spatial extent of visible light that is predicted to occur from the Exploration Campaign. The threshold for this area is whether any part of the facility is visible as a dot on the horizon.
Potential Impact Area	The spatial extent of a measurable change in ambient light that is predicted to occur from the Exploration Campaign. The threshold for this area is an illuminance equivalent to ambient light on a moonless clear night sky/new moon (<0.001 lux). This is the area relevant to the impact assessment for planned light emissions from the Exploration Campaign.

The modelling utilises the MODU as the basis for modelling as it will be the largest and tallest piece of infrastructure that will be infield for the Exploration Campaign. The light intensity modelling utilises the two major sources of light emissions as the basis for the model – the MODU lighting and flaring from the MODU for well testing. Artificial light emissions from vessels (e.g. support vessels) associated with the Exploration Campaign were not included in the assessment due to their much smaller scale and/or temporary and transient nature.

2 BASIS OF LIGHT ASSSESSMENT

2.1 Light and its Measurement

Light is a form of energy that is emitted over a particular band of frequencies and wavelengths of the electromagnetic spectrum, and includes ultraviolet, visible (to humans) light and infrared light. As illustrated in Figure 2-1, the visible range for humans is approximately 400–700 nm. Fauna perceive light differently to humans, and their visible spectrum can vary between ~300 nm and >700 nm depending on the species (Commonwealth of Australia, 2020).

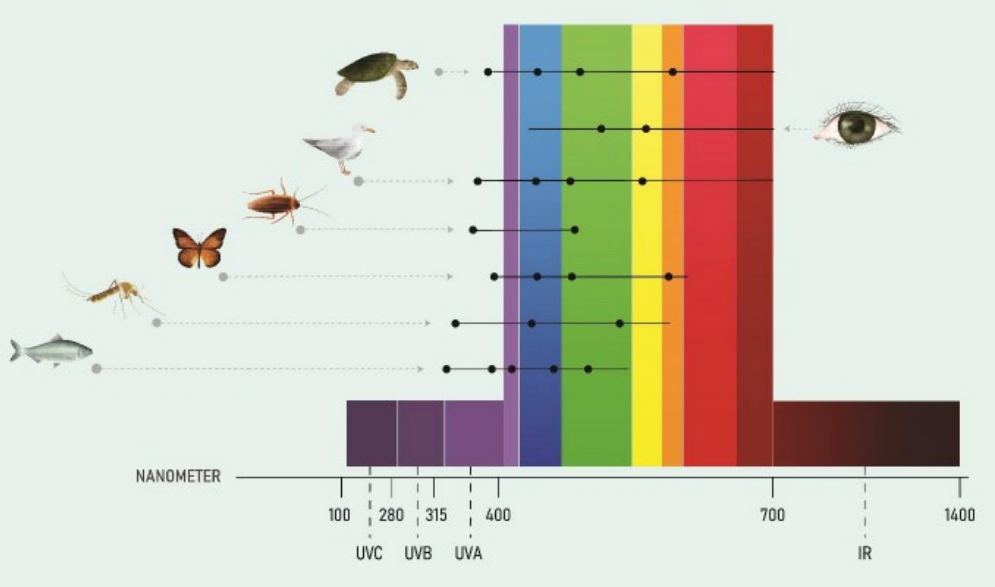


Figure 2-1: Ability to perceive different wavelengths of light in humans and wildlife is shown by horizontal lines. Black dots represent reported peak sensitivity. Note the common sensitivity to short wavelength light across all wildlife (Campos, 2017; Commonwealth of Australia, 2020).

Humans and fauna use photoreceptor cells (cones and rods) in the eye to detect light. Photopic vision, which occurs in bright conditions, activates the cones and allow the eye to see colour. Scotopic vision, which occurs in low light conditions, activates rods and allow the eye to see in shades of grey. Scotopic vision is more sensitive to shorter wavelength light than photopic visions (Commonwealth of Australia, 2020). Nocturnal species rely on scotopic vision and can therefore be sensitive to changes in light at high-energy, short-wavelength end of the spectrum (e.g. ultraviolet, violet and blue light).

Radiometry is the detection and measurement of electromagnetic radiation. With respect to optics, radiometry refers to the detection and measurement of radiant energy within the light (ultraviolet, violet, infrared) portion of the electromagnetic spectrum. Photometry is a subset of radiometry that applies to the visible light spectrum and measured values are also weighted to the typical response of a human eye. As humans and fauna perceive light differently, radiometric measurements are more biologically relevant, as they account for the energy emitted across all light wavelengths (Commonwealth of Australia, 2020). Common quantities used to describe light in radiometric and photometric terms are provided in Table 2-1.

Table 2-1: Typical radiometric and photometric quantities.

RADIOMETRIC			PHOTOMETRIC		
Quantity	Symbol	Units	Quantity	Symbol	Units
Radiant power	Φ_E	W	**Luminous flux**	Φ_V	lm
Radiant intensity	I_E	W/sr	**Luminous intensity**	I_V	lm/sr (or cd)
Irradiance	E_E	W/m^2	**Illuminance**	E_V	lm/m^2 (or lux)
Radiance	L_E	W/m^{2}sr	**Luminance**	L_V	lm/m^{2}sr

E = energetic; V = visual; W = watt; sr = steradian; lm = lumen; cd = candela

The conversion between radiometric and photometric units is dependent on the photopic spectral luminous efficiency function, V(λ), as defined by the Commission International de l'Eclairage (CIE) in 1924, and the spectral radiant power curve, $\Phi_E(\lambda)$, of the light source. The conversion is provided by the following relationship:

$$\Phi_V = K_m \int_{\lambda=380}^{\lambda=830} \Phi_E(\lambda)\, V(\lambda) \delta\lambda$$

Where:

- Φ_V is the luminous flux (lumens),
- K_m is a scaling factor equivalent to 683 lm/W,
- $\Phi_E(\lambda)$ is the spectral radiant power (W/nm), and
- V(λ) is the photopic spectral luminous efficiency function.

The photopic spectral luminous efficiency function, V(λ), is a function of wavelength and relates to how a human eye responds to that wavelength of light. In humans the photoreceptor cells are more responsive to green/yellow wavelength light compared to red or violet. V(λ) can be approximated by the following non-linear regression:

$$V(\lambda) = 1.019 e^{-285.4(\lambda - 0.559)^2}$$

Empirical data shows that the function has a maximum value at a wavelength of 555 nm (Figure 2-2), which is the wavelength at which the human eye is most responsive. Spectral luminous efficiency varies across different animal species this is discussed further in Section 2.2.

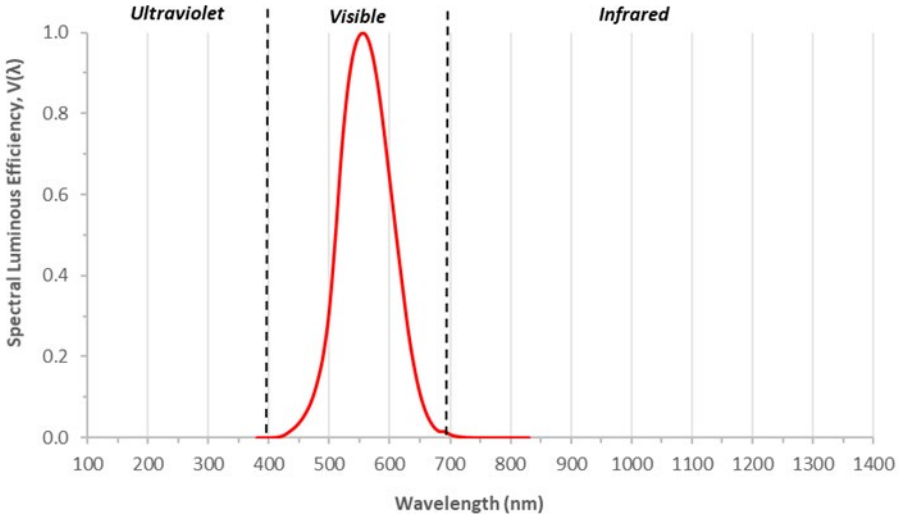


Figure 2-2: Spectral luminous efficiency function.

The spectral radiant power of a light source (Φ_E) is also related to wavelength, however, will also change depending on the type of light (Figure 2-3). The significance of a spectral power curve becomes apparent when using a photometric measurement to describe light for a source that is, for example, high in blue light emissions (such as cool LED or metal halide; Figure 2-3), or high in infrared emissions (such as a gas flare; Figure 2-4), as a photopic measurement may be underestimating the amount of light present as the photopic curve puts a higher weighting on light emitted in the green/yellow range compared to the blue or red (Figure 2-2).

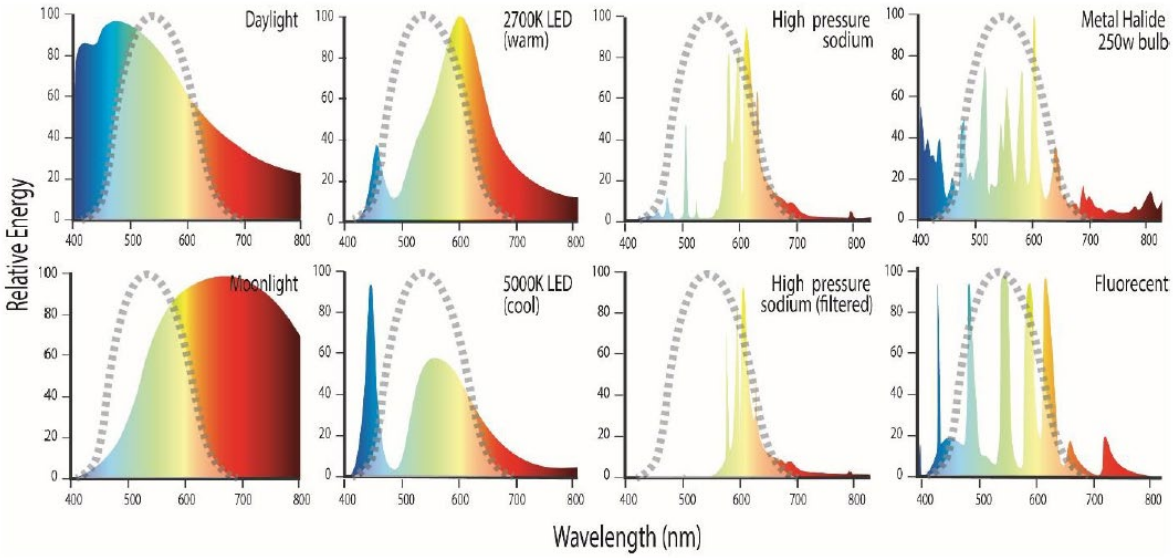


Figure 2-3: Relative spectral radiant power curves for common natural and artificial light sources (shown in colour) with photopic response curve (grey dashed line) (Commonwealth of Australia, 2020).

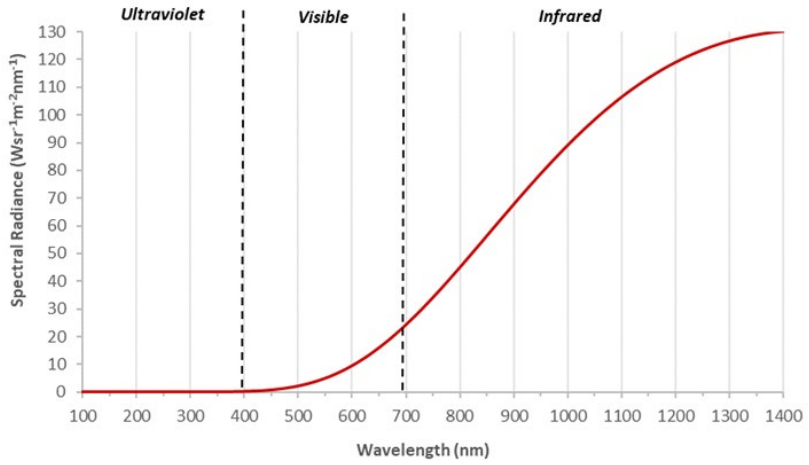


Figure 2-4: Predicted spectral radiance curve for a natural gas flare (based on 2,000 K blackbody emission).

2.2 Artificial Light Assessment

To date, light monitoring equipment has predominantly used photopic measurements. Few light measurement techniques that are appropriate for capturing biologically relevant light and are commercially available exist (Table 1 in Commonwealth of Australia (2020)). As described in Section 2.1, due to the photopic spectral luminous efficiency function being based on a human eye response, there is lower sensitivity in photometric measurements to shorter wavelength light (ultraviolet, violet, blue) that is important to nocturnally active marine fauna. For example, most wildlife is sensitive to short wavelength violet and blue light (Figure 2-1), but little or none of this light is measured by commercial instruments and thus not accounted for in current light models (Commonwealth of Australia, 2020). However, as noted within the National Light Pollution Guidelines (Commonwealth of Australia, 2020), photometric measures can be used in impact assessment on wildlife, but limitations should be acknowledged and considered.

For the light intensity (illuminance) modelling component of the artificial light emissions assessment for the Exploration Campaign (refer to Section 4), photometric measurements have been used. This decision was based on the type of published measured light data that was available to identify analogues and to use as input to the light modelling calculations.

As shown in Table 2-1, photometric light can be described in terms of luminous flux, luminous intensity and illuminance:

- Luminous flux (Φ_V) is a measure of the amount of light from a source emitted in total regardless of direction (unit of measurement: lumens),
- Luminous intensity (I_V) is the amount of light emitted in a particular direction; the direction is typically stated in steradians (unit of measurement: candelas), and
- Illuminance (E_V) is the amount of light reaching an area (unit of measurement: lux; where 1 lux is equivalent to 1 lumen/m^2).

These terms are graphically depicted in Figure 2-5.

Illuminance (also referred to as light intensity) is the term of interest for environmental impact assessment for the Exploration Campaign. Typical light illuminance values from natural light sources are described in *Table 2-2*Table 2-2 and these are considered representative of ambient light levels in the vicinity of the Exploration Campaign in Victoria and King Island.

There are currently no published or accepted thresholds at which artificial light may impact fauna. Consequently, the minimum threshold used to describe a change in ambient light conditions within this artificial light assessment is an illuminance equivalent to a new moon / moonless clear night sky (0.001 lux). Beyond this threshold no impact to light sensitive fauna is assumed. This threshold (0.001 lux) was selected on the basis that fauna undertake nocturnal activities under the natural range of full moon (0.1 lux) to new moon (0.001 lux) without known adverse impacts.

In recognition that the photopic curve is biased towards a human eye response to light, and to remove some of the scientific uncertainty associated with the way light is measured, the 'Potential Impact Area' (i.e. the area relevant for impact assessment of planned light emissions; Table 1-1 conservatively uses an initial luminous intensity value 20% higher than the measured/modelled analogue value. This increase in luminous intensity increases the estimated distance of the Potential Impact Area and provides conservatism to the modelling and subsequent impact assessment.

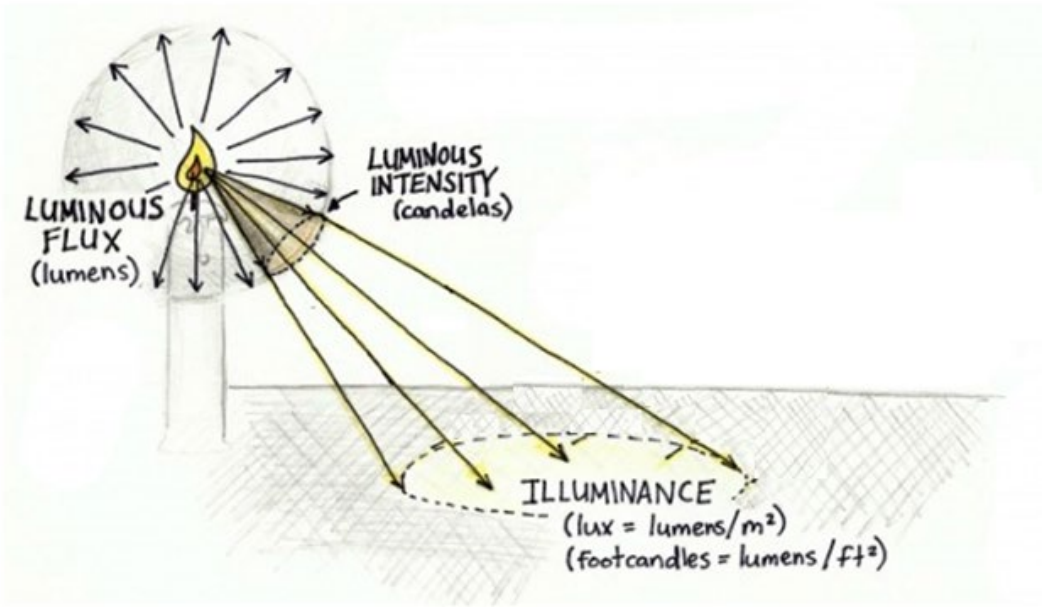


Figure 2-5 Photopic light terminology.

Table 2-2: Summary of natural light illuminance (Environmental Resources Management, 2010).

NATURAL LIGHT SOURCE	LIGHT ILLUMINANCE (LUX)
Direct sunlight	100,00–130,000
Full daylight, indirect sunlight	10,000–20,000
Overcast day	1,000
Very dark day	100
Twilight	10
Deep twilight	1
Full moon	0.1
Quarter moon	0.01
Moonless clear night sky (new moon)[1]	0.001
Moonless overcast night sky	0.0001

[1] *Impact threshold utilised in this report is 0.001 lux, beyond this threshold no impact to light sensitive fauna is assumed.*

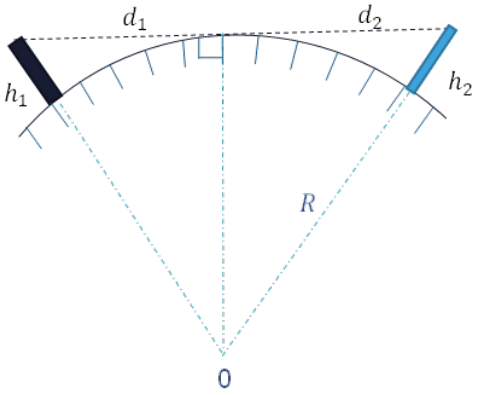
3 VISIBLE LINE OF SIGHT ASSESSMENT

3.1 Methodology

Visible line of sight assessment was conducted using the methodology described in Stallings (2005) for the MODU to determine the worst-case potential extent of visible light for ConocoPhillips. Line of sight and viewshed analysis is typically used in environmental impact assessment for the assessment of impact to visual amenity where an impact may alter a perceived sense of place or inherent value. The visibility of an artificial light does not imply a measurable change in ambient light (and therefore a potential environmental impact), this is estimated though change to illuminance as discussed in Section 4).

Line of sight assessment utilises the following equation to estimate the total line of sight (d):

$$d = \left(2 \cdot \frac{4}{3} R h_1 + h_1^2\right)^{0.5} + \left(2 \cdot \frac{4}{3} R h_2 + h_2^2\right)^{0.5}$$



Where

d = total line of sight ($d_1 + d_2$),
h_1 = height of object,
h_2 = height of receptor, and
R = radius of earth.

The analysis was completed using assumed heights of an analogue MODU for the Exploration Campaign as shown in Table 3-1, with final designs being confirmed during front end engineering (FEED). Receptor heights modelled included a receptor at sea level, and varying elevations (from 5 to 525 m) of the adjacent mainland.

Table 3-1: Assumed heights of the MODU facility infrastructure involved in the exploration campaign.

EXPLORATION CAMPAIGN FACILITY INFRASTRUCTURE	HEIGHT OF FACILITY / LIGHTING / FLARE (m) ABOVE SEA LEVEL
Main deck lights	40
Process module lights	50
Lighting on the drill rig	80
Derrick (navigation lights)	120
Boom flare flame height (horizontal boom)	53

3.2 Results and Recommendations

The line of sight assessment results for the different heights of the MODU facilities and receptors are outlined in Table 3-2. The assessment shows that at sea level, the maximum distance the tip of the MODU derrick (navigation lights) would be visible above the horizon is 45 km. The flare and equipment above main deck level would be visible from 30 km from the MODU location.

Figure 3-1 and Figure 3-2 show the extent of visibility for the MODU derrick (navigation lights) and the deck flare respectively, including the total line of sight distances and the Environment that May Be Affected (EMBA) which is within 20 km for light.

The line of sight assessment indicates that lights on the derrick and light associated with flaring may be visible as a dot on the horizon from the adjacent mainland, extending inland up to 140 km for elevated receptor locations. However, this line of sight distance was estimated without considering the atmospheric interactions/disturbances, and thus is a conservative estimation. Considering the luminance range of human vision, the extent of potential visibility is more likely up to only 49 km when the light intensity reaches 0.001 lux, equivalent to an ambient light intensity level of a moonless clear night sky (which will be shown further in the light intensity (illuminance) Section 4). It is recommended to conduct a Zone of Theoretical Visibility analysis to quantify the visual impact and provide a communication tool to the relevant stakeholders.

King Island is 107 km away from the operational area with a maximum receptor height of 165 m, as such, it is not affected by the light emissions from VIC/P79N (not shown in figures).

Table 3-2: Exploration campaign facility visual line of sight distances.

EXPORATION CAMPAIGN INFRASTRUCTURE	HEIGHT OF FACILITY / LIGHTING / FLARE (m)	HEIGHT OF RECEPTOR (m)	TOTAL LINE OF SIGHT (km)
Visibility of MODU infrastructure at sea level			
Main deck light	32	0	23.3
Process module lights	50	0	29.1
Lighting on the drill rig	80	0	36.9
Derrick (navigation lights)	120	0	45.2
Flare flame height (horizontal boom)	53	0	30.0
Visibility of MODU derrick at various receptor heights			
Derrick (navigation lights)	120	5	54.4
	120	10	58.2
	120	50	74.3
	120	100	86.4
	120	300	116.5
	120	525	139.6

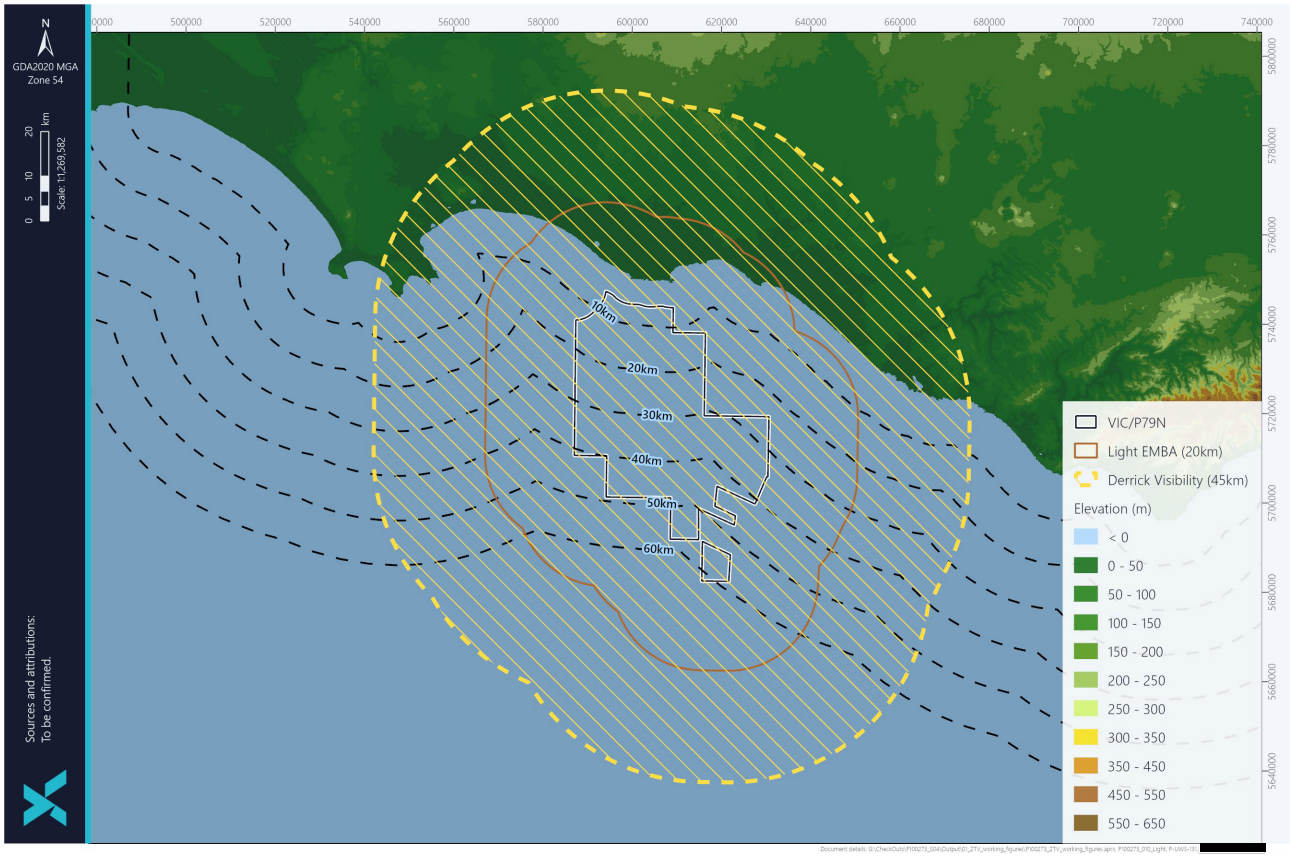


Figure 3-1: Light EMBA and area of visibility (derrick navigation lights).

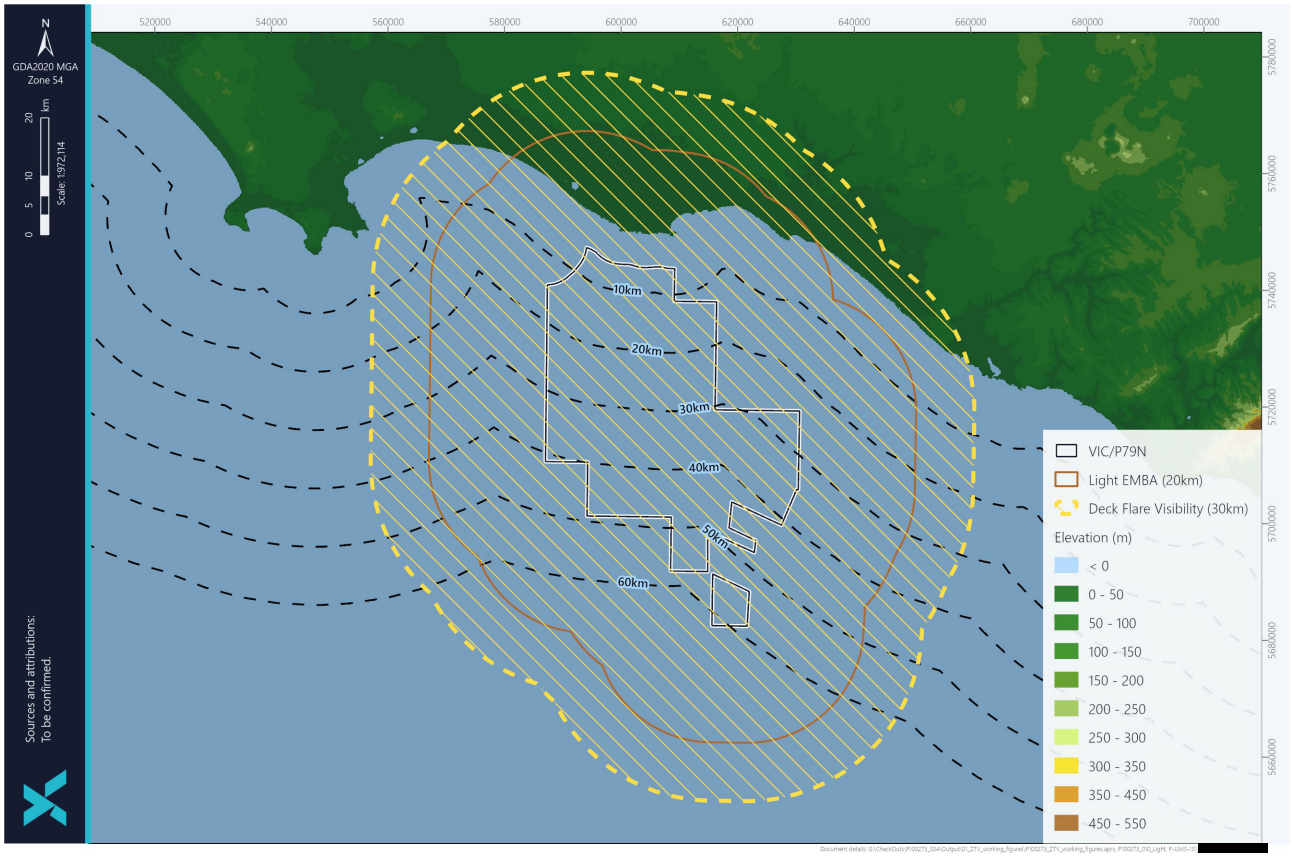


Figure 3-2: Light EMBA and area of visibility (light associated with flaring).

4 LIGHT INTENSITY (ILLUMINANCE) ASSESSMENT

The two sources of artificial lighting (facility and flaring) for the Exploration Campaign were assessed separately, using published modelled and measured data as analogues.

It is noted that most commercial light modelling software requires the input of a number of factors, such as the light fitting type, quantity, and location of light sources – information which is not available at this preliminary stage. As such, the use of analogues was adopted, as this provided a real-world analogue on which to base the artificial light emissions assessment. It is also considered a conservative approach as it does not include any best practice or additional mitigation measures that may be adopted by ConocoPhillips during the FEED of the project.

4.1 Facility Lighting

It is expected that the MODU for the Exploration Campaign will have a similar lit surface area as the drill rig utilised for the Woodside Torosa drilling campaign on Browse reef for which published data is available. The MODU utilised for the Exploration Campaign will be similar with similar lighting required for safe operations of the facility. Therefore the MODU facility light emissions would also be comparable to that of the Torosa wells used during a previous light intensity modelling and associated measured data completed by Environmental Resources Management (2010). Light characteristics and modelling of light sources for the Torosa assessment are based on measured lighting data (lux levels and wavelength) obtained whilst drilling the Torosa South-1 appraisal well on the edge of the South Reef lagoon and ambient data when no activities were occurring at Scott Reef (Environmental Resources Management, 2010). The drill rig used is a suitable analogue for the drill rig expected to be used for the VIC/P79N Exploration Campaign.

The light intensity values derived from the measured Torosa South 1 well campaign were utilised to represent the MODU facility lighting for the Exploration Campaign modelling.

4.2 Flare Light Emissions

The Exploration Campaign will require a MODU flare to dispose of the gas generated from well testing. The gas is produced and flared to allow for testing of the produced gas and oil as well as to calculate the size of the oil and gas reservoir and reservoir characteristics. The excess oil and gas is sent to the flare disposal system to be burnt. The flare for the MODU will be a horizontal boom flare extending out horizontally of the MODU deck. Flaring will occur for a duration of approximately 42 hours per well.

To inform the environmental impact assessment for the Exploration Campaign, light intensity from a flare flow rate of 40 MMscfd was modelled. This represents a peak flaring rate from the well test systems.

Based on Gas Processors Suppliers Association (2004), it has been calculated that this expected rate of flaring will result in a flare flame length of up to approximately 22 m. This flame will generate light. Analogues are utilised to determine the likely amount of light emitted from the flame. This is discussed in Section 4.3.2.

4.3 Methodology

4.3.1 Inverse Law

The light intensity modelling used the inverse square law of illuminance which states that *a doubling of distance results in a reduction in illuminance by four times*, i.e. as a surface that is illuminated by a light source moves away from the light source, the surface appears dimmer. Light emitted becomes dimmer in an inverse square relationship to distance as represented in Figure 4-1 and in the mathematical equation below:

$$E = \frac{I}{D^2}$$

Where

- E = illuminance (in lux),
- I = luminous intensity (in candela), and
- D = the distance from the light source in meters.

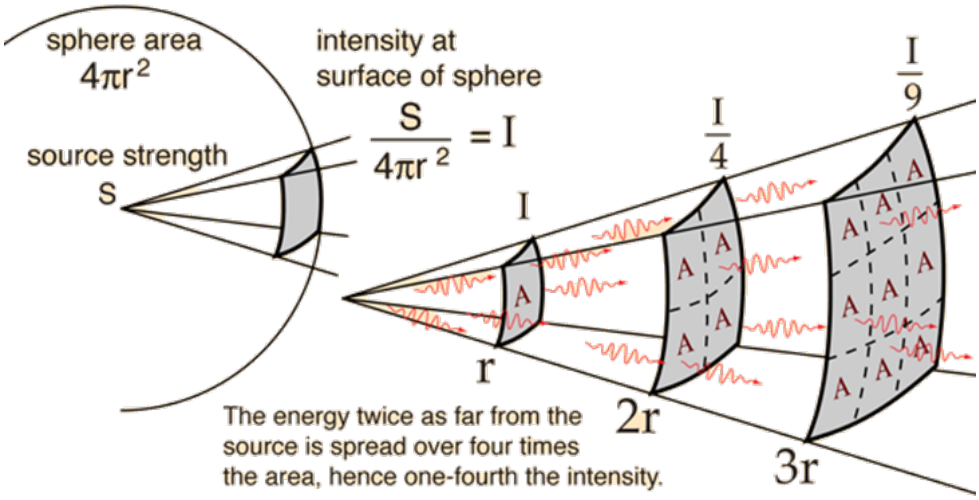


Figure 4-1: Inverse square law.

4.3.2 Analogues

As flares are not designed to be luminous, there is some uncertainty in calculating luminous intensity from a flare. To reduce the uncertainty, light measurements from an analogue, existing flares have been utilised to calculate likely light emissions from the flare. These analogues are documented within publicly available literature on light emissions from flares.

The analogues for gas flares were identified and are detailed in Table 4-1.

Table 4-1: Details of potential analogue natural gas flares.

ANALOGUE SITE	FACILITY TYPE	FLARE RATE	LUMINANCE INTENSITY	ILLUMINANCE METHOD	REFERENCE
Galoc FPSO – Philippines	Tamarind operated FPSO oil facility: Continuous gas flare	~15 MMscfd, 18–20 m high flame	Not specified	N/A (Flame height provided only)	Tamarind (2019)
Wheatstone LNG Plant – Onslow, WA	Chevron-operated onshore LNG facility: Safety flare	Not specified	Not specified	Modelled Illuminance (lux)	URS Australia (2010)
Narrabri Gas Project – Bibblewindi, NSW	Proposed Santos-operated onshore gas production facility: Safety flare	244 MMscfd, 30 m high flame	Not specified	Modelled Illuminance (lux) based on measured and calculated source data	Imbricata Environmental (2018)
Obigbo Oil Production Facility – Nigeria	Shell-operated oil production facility: Continuous flaring of associated gas	30 MMscfd	~1,805,000 cd	Measured Illuminance (lux)	Isichei and Sanford (1976) Nwaobi (2005) European Commission (2014)

The four analogues were compared to the expected flare characteristics (rates, flame heights) for the Exploration Campaign to determine if they were appropriate for use in this light emissions assessment.

The Galoc FPSO has a continuous flare which operates at a flare rate of ~15 MMscfd. However, it has not had light intensity levels or illuminance levels measured or modelled, and is therefore not considered further within this light intensity assessment.

The Wheatstone LNG flare has modelled illuminance information, but no details on flare rate are publicly available. As this information is unknown, the Wheatstone LNG flare was not carried through to the next stage of assessment as a potential analogue.

Despite the similar flame height (30 m for Narrabri compared to the 22 m from the exploration campaign MODU), the Narrabri gas flare rate is >200 MMscfd, which is an order of magnitude higher than that for the Exploration Campaign, and as such was not considered an appropriate analogue and is not discussed further in this assessment.

The Obigbo facility has a continuous flare that is of similar scale and has a flare rate (30 MMscfd) close to the rate expected for the Exploration Campaign (40 MMscfd). For these reasons, the Obigbo oil production facility was considered an appropriate analogue for the MODU flare. A detailed study describing lux levels at varying distances from the operational flare was also available for the Obigbo oil production facility (Isichei and Sanford, 1976). The detail provided in that study, as well as Nwaob (2005) and European Commission (2014) allow for the characteristics of the Obigbo flare to be scaled and for characterisation of other flares. This data provides the basis for the following flare light intensity modelling.

4.3.3 Model

The light intensity model was built in Microsoft Excel utilising the inverse law of illumination (Section 4.3.1). The following assumptions were made.

- Obigbo oil production facility flare characteristics as stated in Table 4-1,
- Combustion characteristics of the Exploration Campaign flare are similar to Obigbo,
- No allowance was made for atmospheric or topographic interactions including shadowing, absorption or scattering, as such the model is conservative and likely to overestimate illuminance at distance,
- Flare luminous intensity is calculated directly proportional to flare flow rate, and
- Facility luminous intensity is combined with the flare luminous intensity as a total luminous intensity input into the model.

Illuminance was calculated every 100 m from the flare source (in lux), and results overlaid in geographic information system (GIS) to identify geospatial contours.

A verification exercise of the Xodus Group light decay model (Xodus model) was conducted using the light decay model developed by Jacobs–SKM for the Browse FLNG Draft Environmental Impact Statement (Jacobs-SKM, 2014). The verification exercise for the Xodus model plotted the Xodus Group light decay model expected illuminance for the Browse Development against the Jacobs–SKM modelled illuminance. The Xodus model predicted illumination levels aligned with the Jacobs-SKM model, verifying the Xodus model outcomes.

4.4 Results and Recommendations

The results of the light intensity modelling are summarised in Table 4-2 and are also shown graphically for the Exploration Campaign in Figure 4-2 to Figure 4-5.

Table 4-2: Illuminance modelling results and Obigbo analogue.

SITE/SCENARIO	FLARE LUMINANCE INTENSITY (CD)	LIGHT ILLUMINANCE (LUX) Distance from Facility (km)						
		0.5 km	1 km	5 km	10 km	20 km	30 km	60 km
Analogue Case								
Obigbo Facility – Nigeria	~1,805,000	7.2	1.8	0.072	0.018	0.004	0.002	< 0.002
Modelled Cases								
Exploration Campaign facility lighting from the MODU	~100,000	0.4	0.1	0.004	0.001	0.0002	<0.0001	<0.0001
Exploration Campaign combined facility lighting and flaring from the MODU (40 MMscfd)	~ 2,495,667	10.0	2.5	0.100	0.025	0.006	0.003	0.0007

For the Exploration Campaign, the model predicted the following for the combined facility lighting and flaring rate of 40 MMscfd during flaring (Figure 4-2 and Figure 4-3):

- Light intensity levels greater than 0.1 lux are predicted to occur up to 5 km from the MODU, comparable to ambient light levels during full moon to twilight.
- Between 5 km and 16 km from the MODU, the model predicted light intensity levels comparable to ambient light levels during a quarter moon to full moon night sky (0.01 lux to 0.1 lux).
- Between 16 km and 49 km, light intensity levels were predicted to be between 0.01 lux and 0.001 lux, which is comparable to ambient light intensity levels between a moonless clear night sky and a quarter moon.
- Beyond 49 km, there was no measurable change to the ambient light intensity levels.

For the Exploration Campaign, the model predicted the following for the facility lighting when not flaring (Figure 4-4 and Figure 4-5):

- Light intensity levels greater than 0.1 lux are predicted to occur up to 1 km from the MODU, comparable to ambient light levels during full moon to twilight.
- Between 1 km and 3 km from the MODU, the model predicted light intensity levels comparable to ambient light levels during a quarter moon to full moon night sky (0.01 lux to 0.1 lux).
- Between 3 km and 9 km, light intensity levels were predicted to be between 0.01 lux and 0.001 lux, which is comparable to ambient light intensity levels between a moonless clear night sky and a quarter moon.
- Beyond 9 km, there was no measurable change to the ambient light intensity levels.

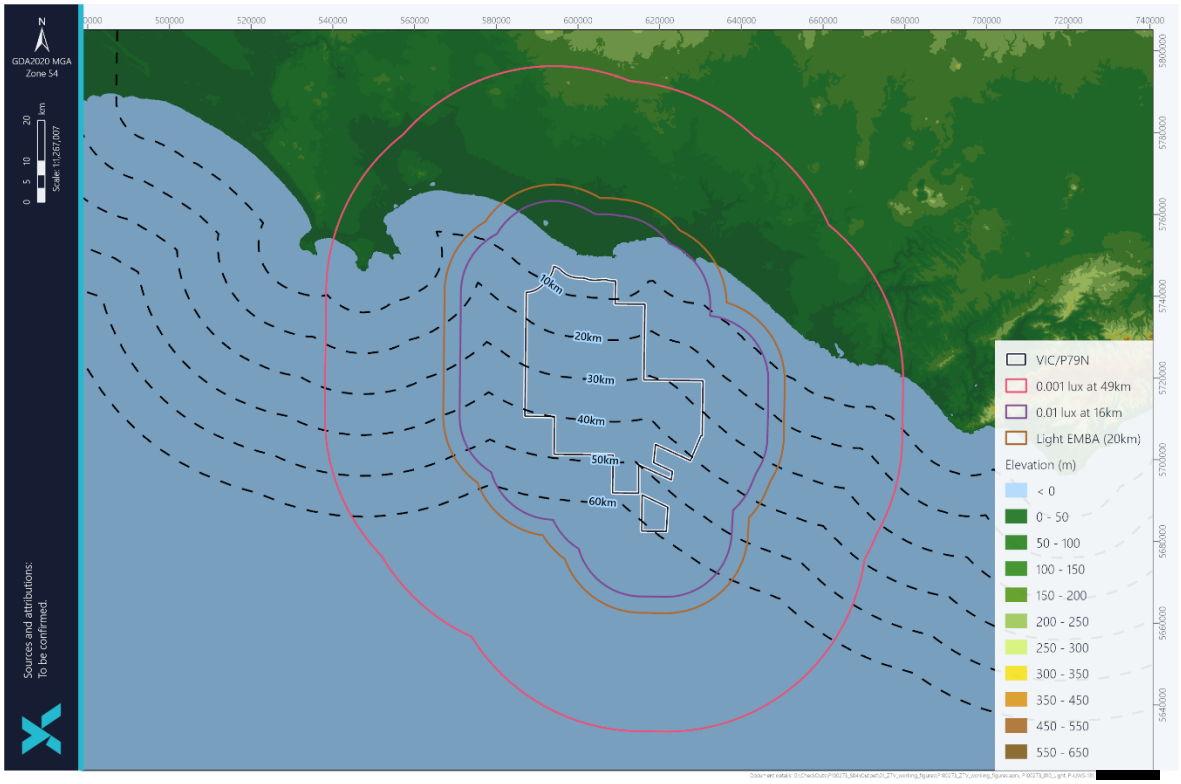


Figure 4-2: Map of expected light intensity (illuminance) levels from flare and facility lighting on the MODU during flaring (40 MMscfd).

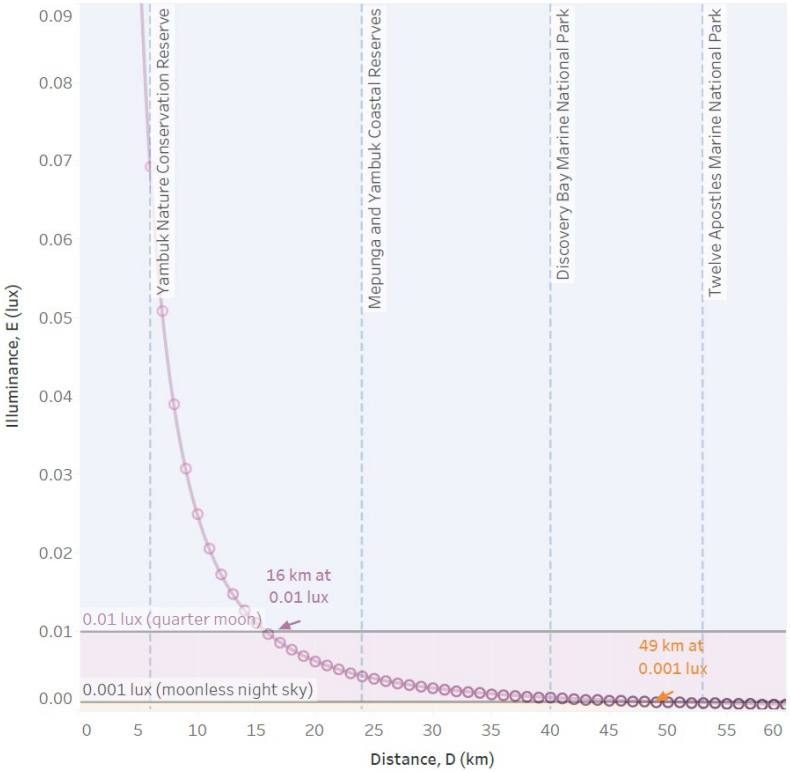


Figure 4-3: Expected light intensity levels from flare and facility lighting on the MODU during flaring (40 MMscfd) at receptor locations.

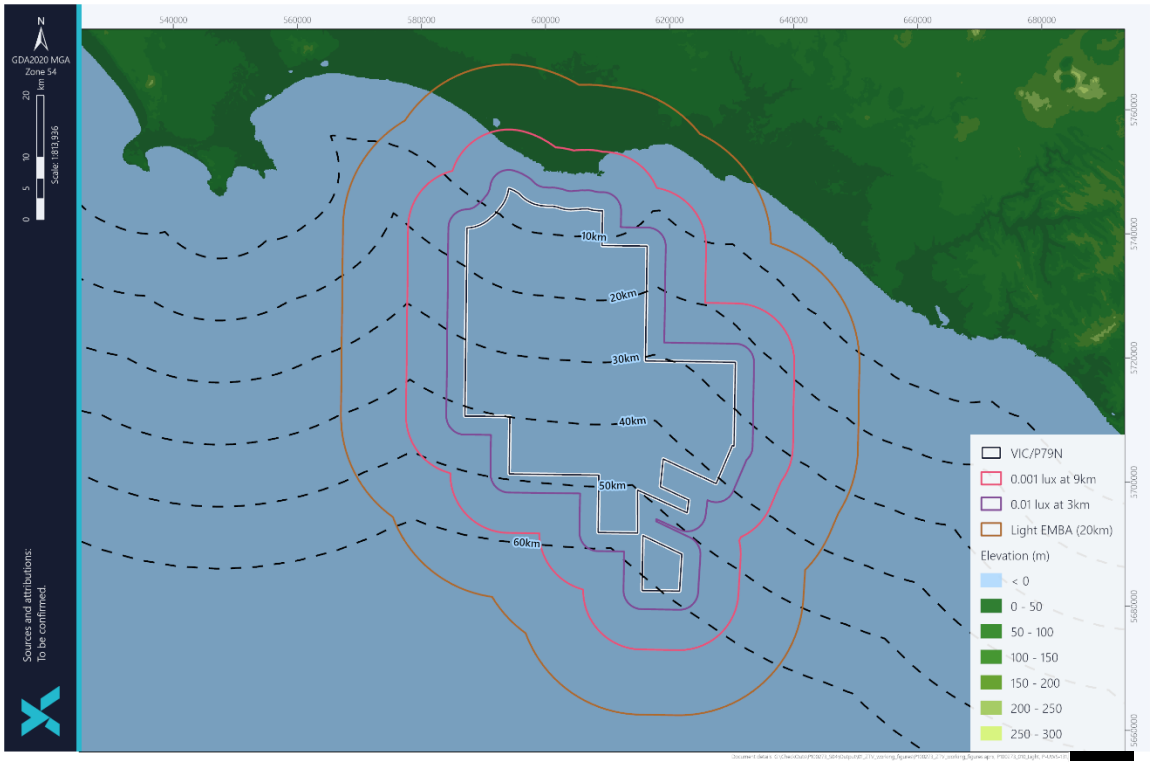


Figure 4-4: Map of expected light intensity (illuminance) levels from facility lighting on the MODU when not flaring.

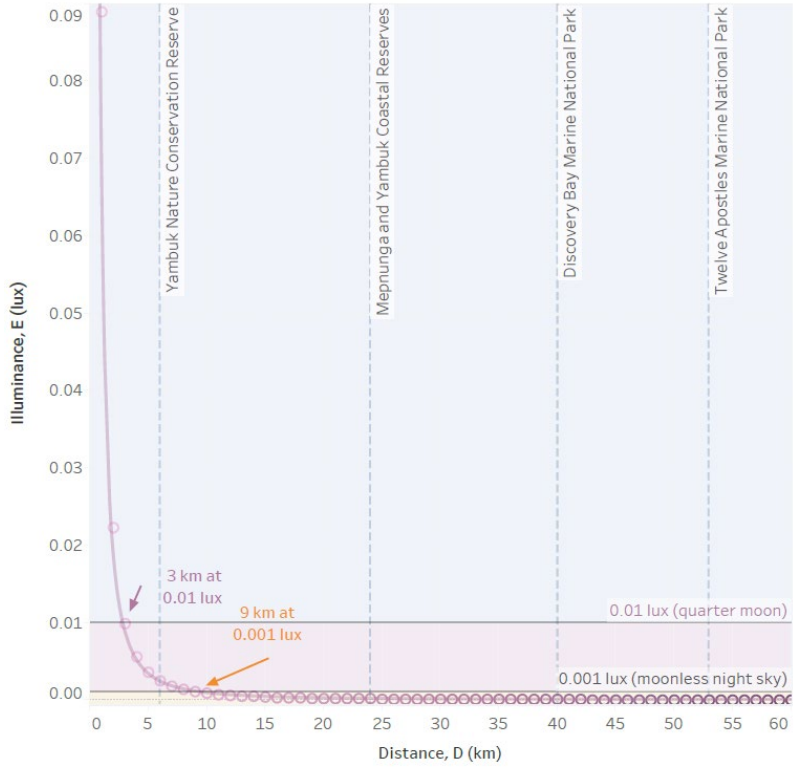


Figure 4-5: Expected light intensity levels from facility lighting on the MODU at receptor locations when not flaring.

As noted in Section 2.2, in recognition that photometric measurements are biased towards the human eye response to light, the spatial extent potentially impacted by visible light from the MODU, as a visible dot on the horizon, is out to a distance of 9 km from the position of the MODU when not flaring (Figure 4-4 and figure 4-5). Note: This is distinct from the biological light EMBA which is relevant for the potential assessment of impacts to, for example, birds.

The spatial extent potentially impacted by visible light from flaring and MODU lighting, as a visible dot on the horizon, is out to a distance of 49 km from the position of the MODU (Figures 4-2 and 4-3).

As shown in the light intensity results, the light intensity levels from the MODU received at Yambuk Nature Conservation Reserve (6 km) and its nearby towns are about 0.07 lux when flaring, comparable to the ambient light levels during a full moon (0.1 lux) to a quarter moon (0.01 lux), equivalent to the 'Full' and 'First Quarter' moon phases in Figure 4-6; and the light intensity levels drop to less than a quarter moon (<0.01 lux) when not flaring.

At other selected receptor locations of Mepunga Coastal Reserve (24 km), Yambuk Coastal Reserve (24 km), Discovery Bay Marine National Park (40 km), Twelve Apostles Marine National Park (53 km), and the nearby towns, the light intensity levels are comparable to the ambient light levels less than a quarter moon (<0.01 lux) when flaring, and less than a moonless clear night sky (<0.001 lux) when not flaring, equivalent to the 'First Quarter' and 'New' moon phases in Figure 4-6, respectively.

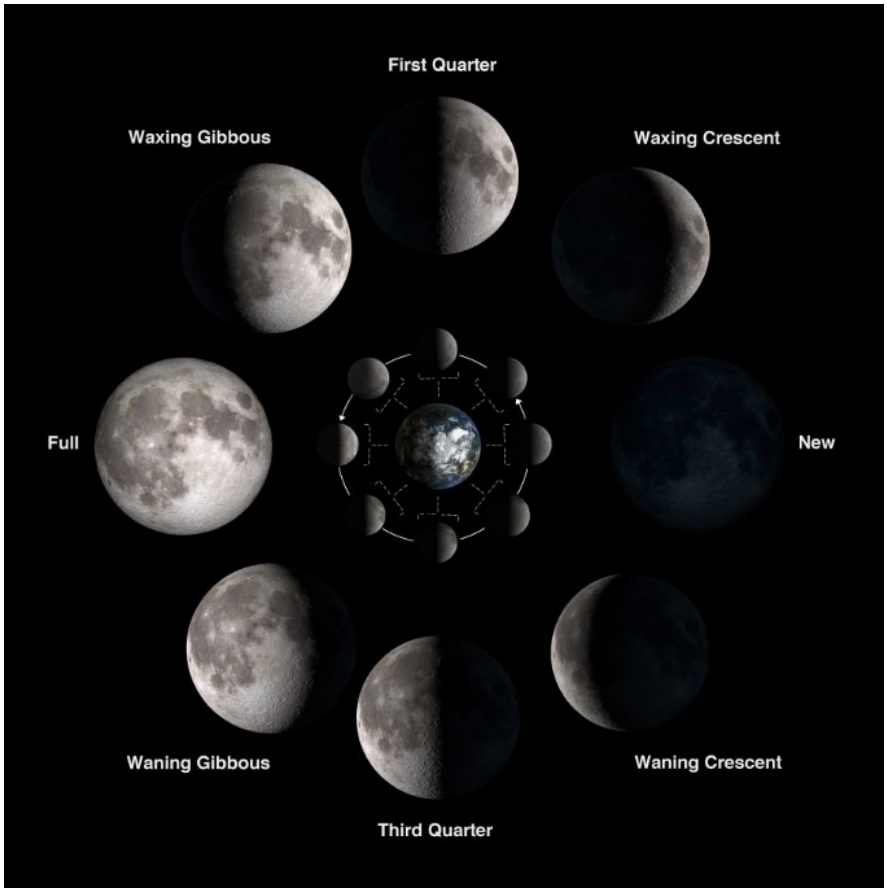


Figure 4-6: The moon phases Credit: NASA/Bill Dunford (Johnston, 2020).

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ConocoPhillips Australia

Otway Exploration Drilling Campaign

Line of Sight Assessment and Light Intensity Modelling for VIC/P79 Southern Extent

ASSIGNMENT P100273-S04
DOCUMENT P-100273-S04-A-REPT-002

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EXECUTIVE SUMMARY

This technical report presents the results of the visible line of sight and light intensity (illuminance) assessments for ConocoPhillips Australia's (ConocoPhillips) Otway Exploration Drilling Campaign (Exploration Campaign). This light modelling study was conducted for the Exploration Campaign within the southern part of petroleum title VIC/P79 (VIC/P79S). The sources of light emissions considered were the lights and flare from the mobile offshore drilling unit (MODU). The lights on the MODU facility include the main deck light, process module lights, lighting on the drill rig and the navigation lights on the derrick. The light that come from the flaring during well testing was considered at a maximum flare rate of 40 MMscfd.

The threshold for the spatial extent of visible light that is predicted to occur from the Exploration Campaign was defined as whether any part of the facility is visible as a dot on the horizon (visible line of sight assessment). The threshold for the spatial extent of a measurable change in ambient light that is predicted to occur from the Exploration Campaign was defined as an illuminance equivalent to ambient light on a moonless clear night sky/new moon (<0.001 lux). The area within these thresholds is considered relevant to the impact assessment for planned light emissions from the Exploration Campaign.

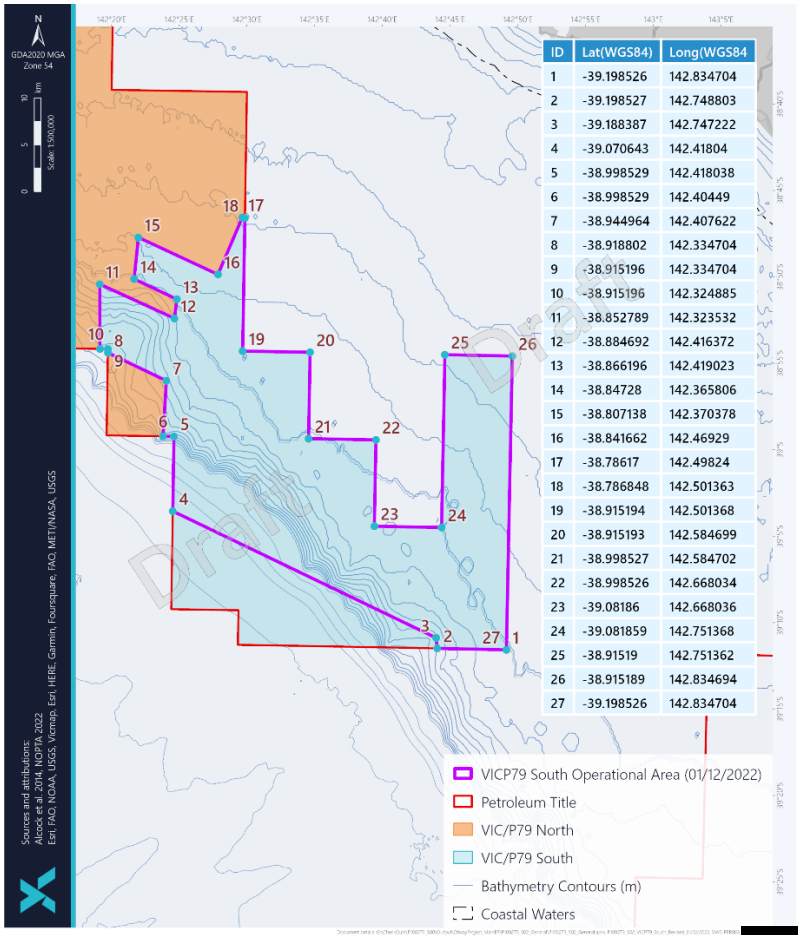
The results of visible line of sight assessment conclude that the MODU lights and flare will be visible from a distance of 45 km from receptors at sea level while, due to elevations on the mainland, the MODU will be visible from the Victorian mainland adjacent to the project area.

Light intensity (illuminance) assessment indicates that during flaring, a measurable change will occur up to 49 km from the expected position of the MODU and reduces to 9 km from the MODU when not flaring The light intensity results also show that the light intensity levels of the MODU at the selected receptor locations of the Twelve Apostles Marine National Park (34 km), Mepunga Coastal Reserve (34 km), Great Otway National Park (60 km), Coradjil Nature Conservation Reserve (60 km) and the nearby towns are comparable to the ambient light levels less than a quarter moon (0.01 lux) when flaring and less than moonless clear night sky (0.001 lux) when not flaring. A Zone of Theoretical Visibility analysis is thus recommended to quantify the visual impact and provide a communication tool to the relevant stakeholders.

1 INTRODUCTION

1.1 Project Overview

The Otway Exploration Drilling Campaign is located adjacent to the largest gas fields in the offshore Otway Basin, Thylacine and Geographe. ConocoPhillips Australia (ConocoPhillips) plan to execute an exploration well drilling campaign within the southern part of VIC/P79 (denoted as Vic/P79S), as shown in Figure 1-1. This report presents the light modelling study for the Exploration Campaign within VIC/P79S.



ID	Lat(WGS84)	Long(WGS84
1	-39.198526	142.834704
2	-39.198527	142.748803
3	-39.188387	142.747222
4	-39.070643	142.41804
5	-38.998529	142.418038
6	-38.998529	142.40449
7	-38.944964	142.407622
8	-38.918802	142.334704
9	-38.915196	142.334704
10	-38.915196	142.324885
11	-38.852789	142.323532
12	-38.884692	142.416372
13	-38.866196	142.419023
14	-38.84728	142.365806
15	-38.807138	142.370378
16	-38.841662	142.46929
17	-38.78617	142.49824
18	-38.786848	142.501363
19	-38.915194	142.501368
20	-38.915193	142.584699
21	-38.998527	142.584702
22	-38.998526	142.668034
23	-39.08186	142.668036
24	-39.081859	142.751368
25	-38.91519	142.751362
26	-38.915189	142.834694
27	-39.198526	142.834704

Figure 1-1: Otway drilling light modelling scope for VIC/P79S.

1.2 Aim and Objectives

The purpose of this technical report is to present the assessment undertaken to estimate the artificial light emissions from the Exploration Campaign within VIC/P79S to inform environmental impact assessment and management planning of the Exploration Campaign. This study considered and assessed:

- the distances of receptors from the mobile offshore drilling unit (MODU),
- light sources and flaring from the MODU, and
- the light levels received at various receptor locations from facility lighting and well test flaring.

1.3 Scope

The sources of light emissions include:

- external facility lighting on MODU and vessels for safe navigation and working conditions, and
- flaring of excess associated gas which will be from a horizontal boom flare and will occur up to approximately 42 hours per event.

Both sources of light emissions are quantified and discussed in this technical report. The exact well locations are yet to be determined or may be subject to change. Therefore, all potential locations in VIC/P79S were considered for modelling (Figure 1-1).

The assessment included two sets of modelling:

- visible line of sight estimates, and
- light intensity (illuminance) modelling.

Line of sight estimates have been used as an indication of the distance that the facility and its lights may be visible while light intensity (illuminance) modelling has been used as an indication of the measurable change in ambient light conditions. These quantifications have been used to develop two types of area used for subsequent environmental impact analysis (Table 1-1).

Table 1-1: Predicted artificial light exposure and impact areas for the Exploration Campaign.

ARTIFICIAL LIGHT ASSESSMENT AREAS	DESCRIPTION
Visible Light Exposure Area	The spatial extent of visible light that is predicted to occur from the Exploration Campaign. The threshold for this area is whether any part of the facility is visible as a dot on the horizon.
Potential Impact Area	The spatial extent of a measurable change in ambient light that is predicted to occur from the Exploration Campaign. The threshold for this area is an illuminance equivalent to ambient light on a moonless clear night sky/new moon (<0.001 lux). This is the area relevant to the impact assessment for planned light emissions from the Exploration Campaign.

The modelling utilises the MODU as the basis for modelling as it will be the largest and tallest piece of infrastructure that will be infield for the Exploration Campaign. The light intensity modelling utilises the two major sources of light emissions as the basis for the model – the MODU lighting, and flaring from the MODU for well testing. Artificial light emissions from vessels (e.g. support vessels) associated with the Exploration Campaign were not included in the assessment due to their much smaller scale and/or temporary and transient nature.

2 BASIS OF LIGHT ASSSESSMENT

2.1 Light and its Measurement

Light is a form of energy that is emitted over a particular band of frequencies and wavelengths of the electromagnetic spectrum, and includes ultraviolet, visible (to humans) light and infrared light. As illustrated in Figure 2-1, the visible range for humans is approximately 400–700 nm. Fauna perceive light differently to humans, and their visible spectrum can vary between ~300 nm and >700 nm depending on the species (Commonwealth of Australia, 2020).

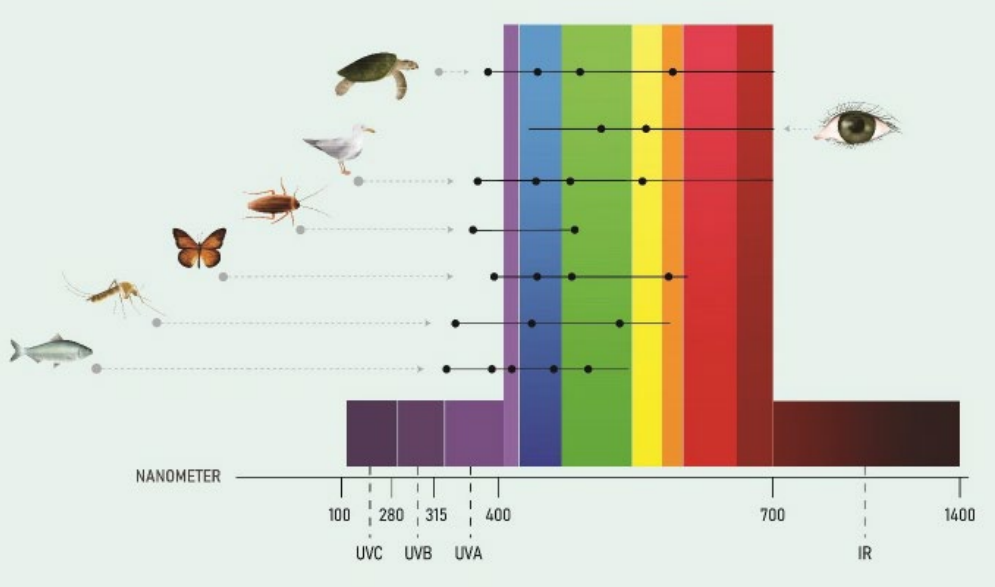


Figure 2-1: Ability to perceive different wavelengths of light in humans and wildlife is shown by horizontal lines. Black dots represent reported peak sensitivity. Note the common sensitivity to short wavelength light across all wildlife (Campos, 2017; Commonwealth of Australia, 2020).

Humans and fauna use photoreceptor cells (cones and rods) in the eye to detect light. Photopic vision, which occurs in bright conditions, activates the cones and allow the eye to see colour. Scotopic vision, which occurs in low light conditions, activates rods and allow the eye to see in shades of grey. Scotopic vision is more sensitive to shorter wavelength light than photopic visions (Commonwealth of Australia, 2020). Nocturnal species rely on scotopic vision and can therefore be sensitive to changes in light at high-energy, short-wavelength end of the spectrum (e.g. ultraviolet, violet and blue light).

Radiometry is the detection and measurement of electromagnetic radiation. With respect to optics, radiometry refers to the detection and measurement of radiant energy within the light (ultraviolet, violet, infrared) portion of the electromagnetic spectrum. Photometry is a subset of radiometry that applies to the visible light spectrum and measured values are also weighted to the typical response of a human eye. As humans and fauna perceive light differently, radiometric measurements are more biologically relevant, as they account for the energy emitted across all light wavelengths (Commonwealth of Australia, 2020). Common quantities used to describe light in radiometric and photometric terms are provided in Table 2-1.

Table 2-1: Typical radiometric and photometric quantities.

RADIOMETRIC			PHOTOMETRIC		
Quantity	Symbol	Units	Quantity	Symbol	Units
Radiant power	Φ_E	W	**Luminous flux**	Φ_V	lm
Radiant intensity	I_E	W/sr	**Luminous intensity**	I_V	lm/sr (or cd)
Irradiance	E_E	W/m^2	**Illuminance**	E_V	lm/m^2 (or lux)
Radiance	L_E	W/m^2sr	**Luminance**	L_V	lm/m^2sr

E = energetic; V = visual; W = watt; sr = steradian; lm = lumen; cd = candela

The conversion between radiometric and photometric units is dependent on the photopic spectral luminous efficiency function, V(λ), as defined by the Commission International de l'Eclairage (CIE) in 1924, and the spectral radiant power curve, $\Phi_E(\lambda)$, of the light source. The conversion is provided by the following relationship:

$$\Phi_V = K_m \int_{\lambda=380}^{\lambda=830} \Phi_E(\lambda)\, V(\lambda) \delta\lambda$$

Where:

- Φ_V is the luminous flux (lumens),
- K_m is a scaling factor equivalent to 683 lm/W,
- $\Phi_E(\lambda)$ is the spectral radiant power (W/nm), and
- V(λ) is the photopic spectral luminous efficiency function.

The photopic spectral luminous efficiency function, V(λ), is a function of wavelength and relates to how a human eye responds to that wavelength of light. In humans the photoreceptor cells are more responsive to green/yellow wavelength light compared to red or violet. V(λ) can be approximated by the following non-linear regression:

$$V(\lambda) = 1.019 e^{-285.4(\lambda - 0.559)^2}$$

Empirical data shows that the function has a maximum value at a wavelength of 555 nm (Figure 2-2), which is the wavelength at which the human eye is most responsive. Spectral luminous efficiency varies across different animal species this is discussed further in Section 2.2.

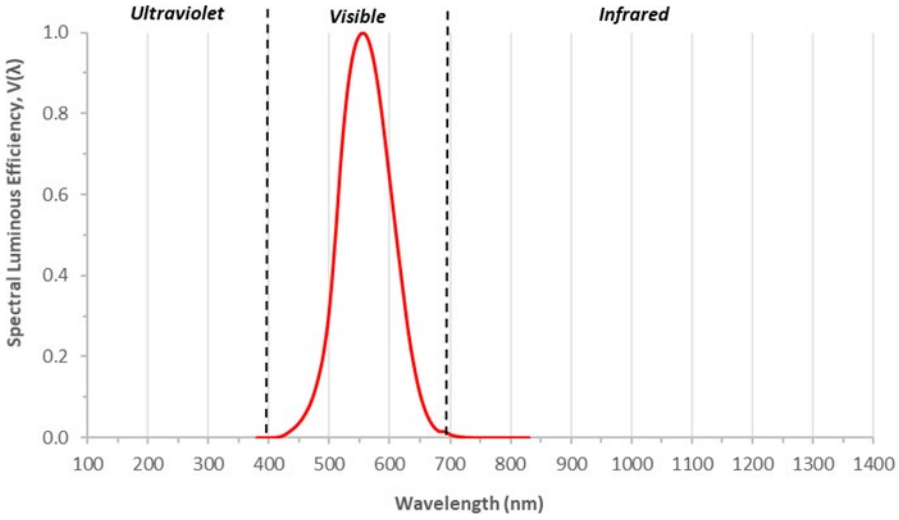


Figure 2-2: Spectral luminous efficiency function.

The spectral radiant power of a light source (Φ_E) is also related to wavelength, however, will also change depending on the type of light (Figure 2-3). The significance of a spectral power curve becomes apparent when using a photometric measurement to describe light for a source that is, for example, high in blue light emissions (such as cool LED or metal halide; Figure 2-3), or high in infrared emissions (such as a gas flare; Figure 2-4), as a photopic measurement may be underestimating the amount of light present as the photopic curve puts a higher weighting on light emitted in the green/yellow range compared to the blue or red (Figure 2-2).

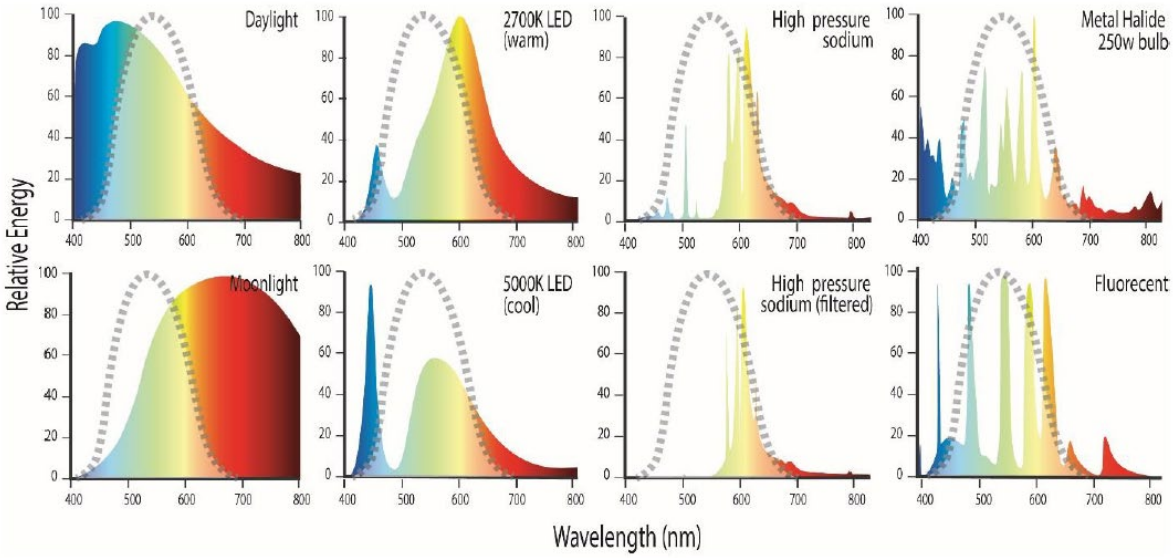


Figure 2-3: Relative spectral radiant power curves for common natural and artificial light sources (shown in colour) with photopic response curve (grey dashed line) (Commonwealth of Australia, 2020).

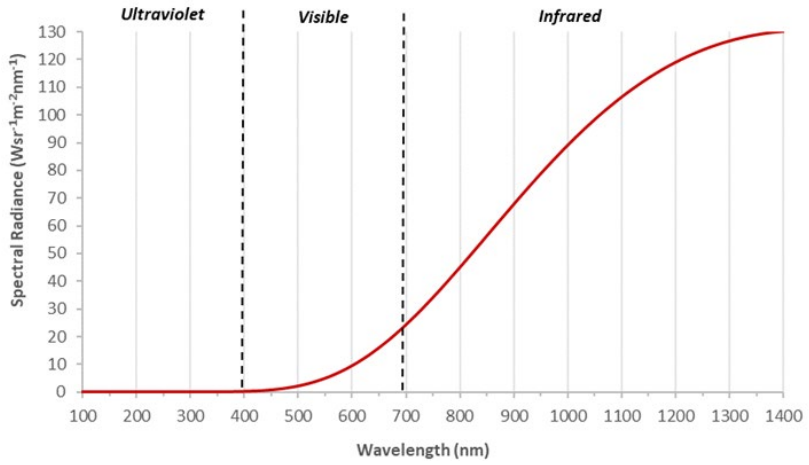


Figure 2-4: Predicted spectral radiance curve for a natural gas flare (based on 2,000 K blackbody emission).

2.2 Artificial Light Assessment

To date, light monitoring equipment has predominantly used photopic measurements. Few light measurement techniques that are appropriate for capturing biologically relevant light and are commercially available exist (Table 1 in Commonwealth of Australia (2020)). As described in Section 2.1, due to the photopic spectral luminous efficiency function being based on a human eye response, there is lower sensitivity in photometric measurements to shorter wavelength light (ultraviolet, violet, blue) that is important to nocturnally active marine fauna. For example, most wildlife is sensitive to short wavelength violet and blue light (Figure 2-1), but little or none of this light is measured by commercial instruments and thus not accounted for in current light models (Commonwealth of Australia, 2020). However, as noted within the National Light Pollution Guidelines (Commonwealth of Australia, 2020), photometric measures can be used in impact assessment on wildlife, but limitations should be acknowledged and considered.

For the light intensity (illuminance) modelling component of the artificial light emissions assessment for the Exploration Campaign (refer to Section 4), photometric measurements have been used. This decision was based on the type of published measured light data that was available to identify analogues and to use as input to the light modelling calculations.

As shown in Table 2-1, photometric light can be described in terms of luminous flux, luminous intensity and illuminance:

- Luminous flux (Φ_V) is a measure of the amount of light from a source emitted in total regardless of direction (unit of measurement: lumens),
- Luminous intensity (I_V) is the amount of light emitted in a particular direction; the direction is typically stated in steradians (unit of measurement: candelas), and
- Illuminance (E_V) is the amount of light reaching an area (unit of measurement: lux; where 1 lux is equivalent to 1 lumen/m^2).

These terms are graphically depicted in Figure 2-5.

Illuminance (also referred to as light intensity) is the term of interest for environmental impact assessment for the Exploration Campaign. Typical light illuminance values from natural light sources are described in Table 2-2 and these are considered representative of ambient light levels in the vicinity of the Exploration Campaign in Victoria and King Island.

There are currently no published or accepted thresholds at which artificial light may impact fauna. Consequently, the minimum threshold used to describe a change in ambient light conditions within this artificial light assessment is an illuminance equivalent to a new moon / moonless clear night sky (0.001 lux). Beyond this threshold no impact to light sensitive fauna is assumed. This threshold (0.001 lux) was selected on the basis that fauna undertake nocturnal activities under the natural range of full moon (0.1 lux) to new moon (0.001 lux) without known adverse impacts.

In recognition that the photopic curve is biased towards a human eye response to light, and to remove some of the scientific uncertainty associated with the way light is measured, the 'Potential Impact Area' (i.e. the area relevant for impact assessment of planned light emissions; Table 1-1 conservatively uses an initial luminous intensity value 20% higher than the measured/modelled analogue value. This increase in luminous intensity increases the estimated distance of the Potential Impact Area and provides conservatism to the modelling and subsequent impact assessment.

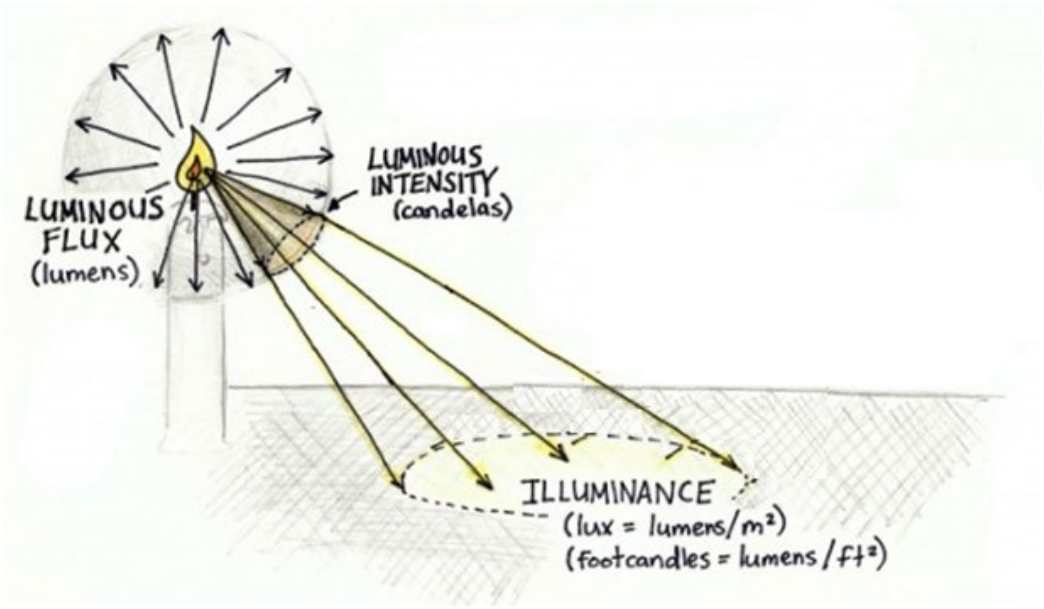


Figure 2-5 Photopic light terminology.

Table 2-2: Summary of natural light illuminance (Environmental Resources Management, 2010).

NATURAL LIGHT SOURCE	LIGHT ILLUMINANCE (LUX)
Direct sunlight	100,00–130,000
Full daylight, indirect sunlight	10,000–20,000
Overcast day	1,000
Very dark day	100
Twilight	10
Deep twilight	1
Full moon	0.1
Quarter moon	0.01
Moonless clear night sky (new moon)[1]	0.001
Moonless overcast night sky	0.0001

[1] *Impact threshold utilised in this report is 0.001 lux, beyond this threshold no impact to light sensitive fauna is assumed.*

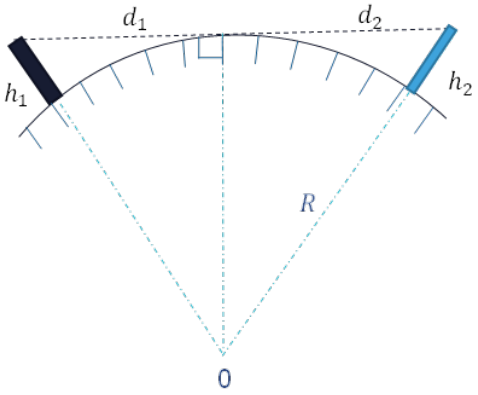
3 VISIBLE LINE OF SIGHT ASSESSMENT

3.1 Methodology

Visible line of sight assessment was conducted using the methodology described in Stallings (2005) for the MODU to determine the worst-case potential extent of visible light for ConocoPhillips. Line of sight and viewshed analysis is typically used in environmental impact assessment for the assessment of impact to visual amenity where an impact may alter a perceived sense of place or inherent value. The visibility of an artificial light does not imply a measurable change in ambient light (and therefore a potential environmental impact), this is estimated though change to illuminance as discussed in Section 4).

Line of sight assessment utilises the following equation to estimate the total line of sight (d):

$$d = \left(2 \cdot \frac{4}{3} R h_1 + h_1^2\right)^{0.5} + \left(2 \cdot \frac{4}{3} R h_2 + h_2^2\right)^{0.5}$$



Where

d = total line of sight ($d_1 + d_2$),
h_1 = height of object,
h_2 = height of receptor, and
R = radius of earth.

The analysis was completed using assumed heights of an analogue MODU for the Exploration Campaign as shown in Table 3-1, with final designs being confirmed during front end engineering (FEED). Receptor heights modelled included a receptor at sea level, and varying elevations (from 5 to 525 m) of the adjacent mainland.

Table 3-1: Assumed heights of the MODU facility infrastructure involved in the exploration campaign.

EXPLORATION CAMPAIGN FACILITY INFRASTRUCTURE	HEIGHT OF FACILITY / LIGHTING / FLARE (m) ABOVE SEA LEVEL
Main deck lights	40
Process module lights	50
Lighting on the drill rig	80
Derrick (navigation lights)	120
Boom flare flame height (horizontal boom)	53

3.2 Results and Recommendations

The line of sight assessment results for the different heights of the MODU facilities and receptors are outlined in Table 3-2. The assessment shows that at sea level, the maximum distance the tip of the MODU derrick (navigation lights) would be visible above the horizon is 45 km. The flare and equipment above main deck level would be visible from 30 km from the MODU location.

Figure 3-1 and Figure 3-2 show the corresponding areas (extent) of visibility for the MODU derrick (navigation lights) and the deck flare respectively, including the total line of sight distances and the Environment that May Be Affected (EMBA) which is within 20 km for light.

The line of sight assessment indicates that lights on the derrick and light associated with flaring may be visible as a dot on the horizon from the adjacent mainland, extending inland up to 140 km for elevated receptor locations. However, this line of sight distance was estimated without considering the atmospheric interactions/disturbances, and thus is a conservative estimation. Considering the luminance range of human vision, the extent of potential visibility is more likely up to only 49 km when the light intensity reaches 0.001 lux, equivalent to an ambient light intensity level of a moonless clear night sky (which will be shown further in the light intensity (illuminance) Section 4). It is recommended to conduct a Zone of Theoretical Visibility analysis to quantify the visual impact and provide a communication tool to the relevant stakeholders.

King Island is 107 km away from the operational area with a maximum receptor height of 165 m, as such, it is not affected by the light emissions from VIC/P79S (not shown in figures).

Table 3-2: Exploration campaign facility visual line of sight distances.

EXPORATION CAMPAIGN INFRASTRUCTURE	HEIGHT OF FACILITY / LIGHTING / FLARE (m)	HEIGHT OF RECEPTOR (m)	TOTAL LINE OF SIGHT (km)
Visibility of MODU infrastructure at sea level			
Main deck light	32	0	23.3
Process module lights	50	0	29.1
Lighting on the drill rig	80	0	36.9
Derrick (navigation lights)	120	0	45.2
Flare flame height (horizontal boom)	53	0	30.0
Visibility of MODU derrick at various receptor heights			
Derrick (navigation lights)	120	5	54.4
	120	10	58.2
	120	50	74.3
	120	100	86.4
	120	300	116.5
	120	525	139.6

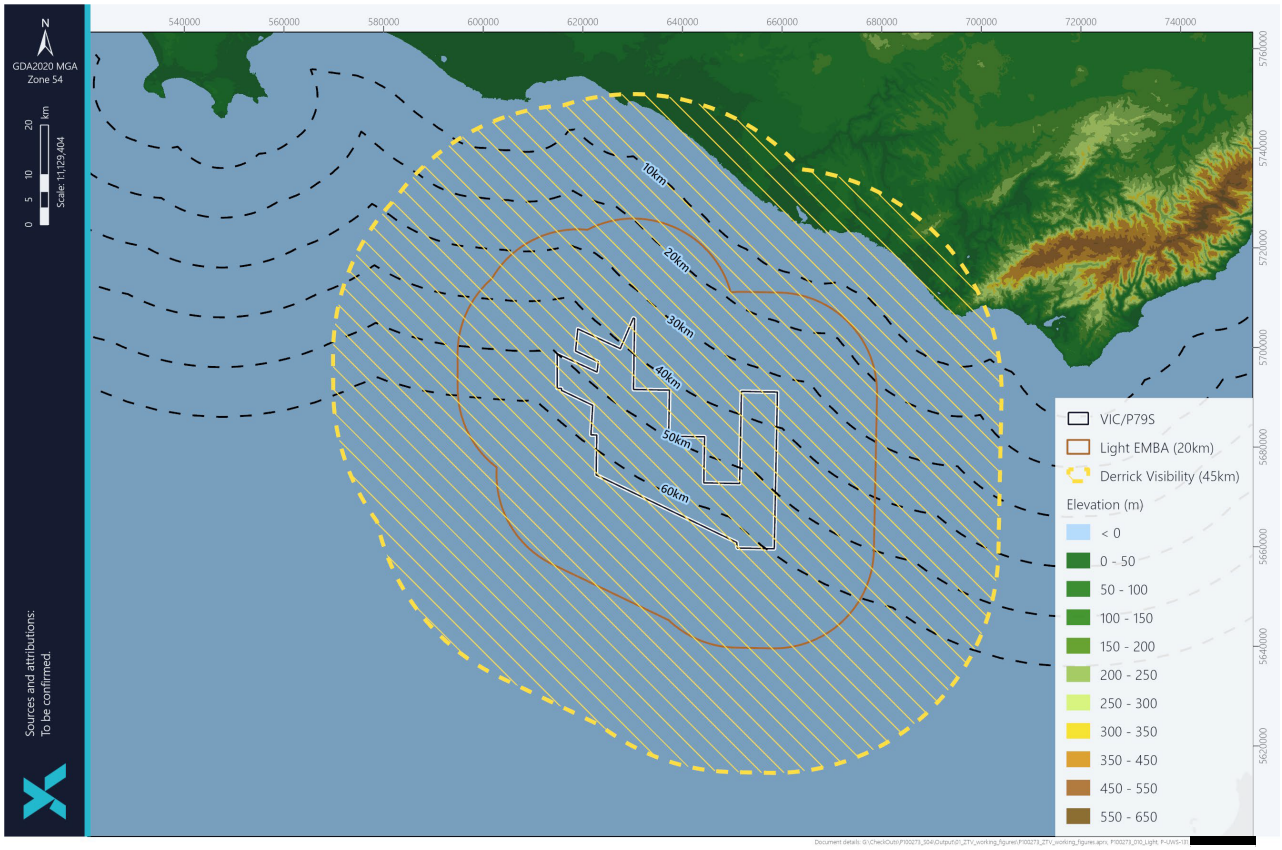


Figure 3-1: Light EMBA and area of visibility (derrick navigation lights).

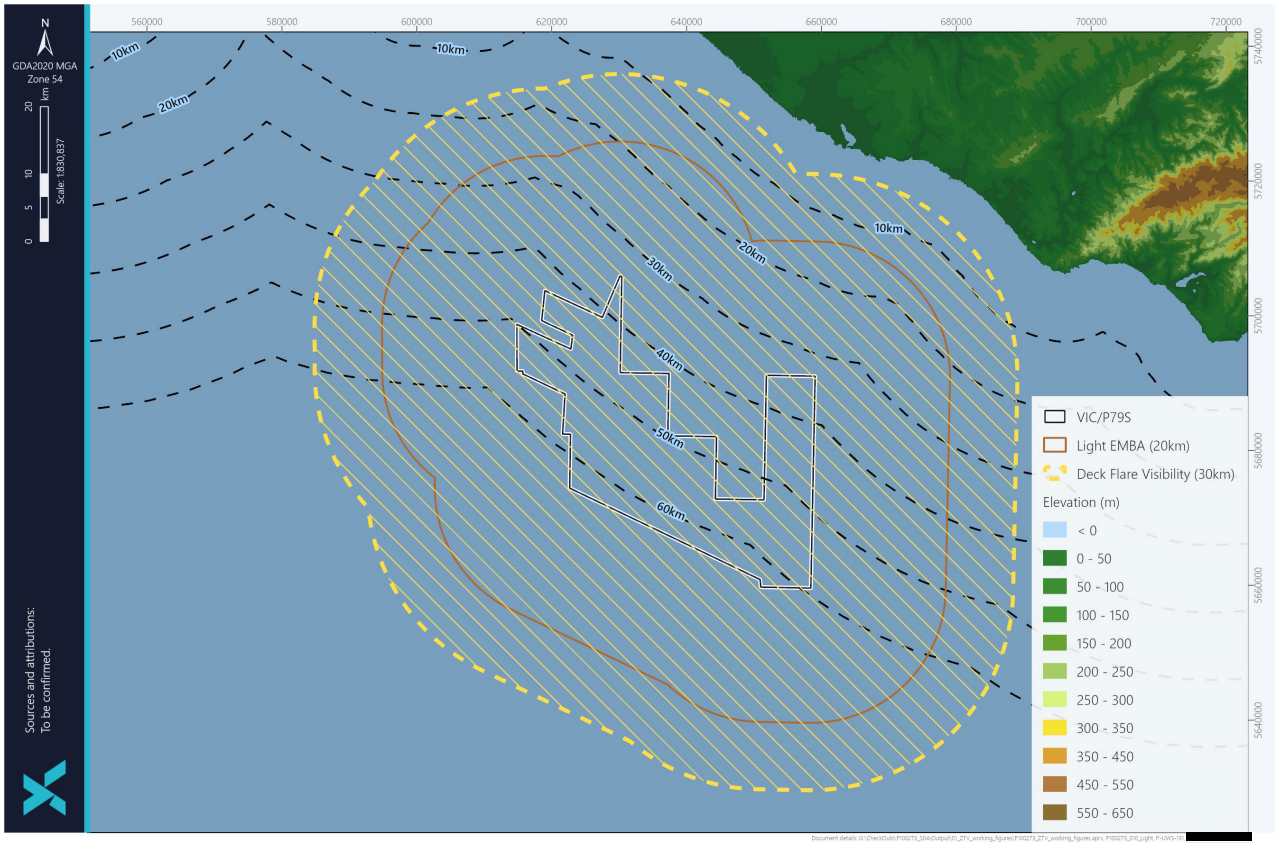


Figure 3-2: Light EMBA and area of visibility (light associated with flaring).

4 LIGHT INTENSITY (ILLUMINANCE) ASSESSMENT

The two sources of artificial lighting (facility and flaring) for the Exploration Campaign were assessed separately, using published modelled and measured data as analogues.

It is noted that most commercial light modelling software requires the input of a number of factors, such as the light fitting type, quantity, and location of light sources – information which is not available at this preliminary stage. As such, the use of analogues was adopted, as this provided a real-world analogue on which to base the artificial light emissions assessment. It is also considered a conservative approach as it does not include any best practice or additional mitigation measures that may be adopted by ConocoPhillips during the FEED of the project.

4.1 Facility Lighting

It is expected that the MODU for the Exploration Campaign will have a similar lit surface area as the drill rig utilised for the Woodside Torosa drilling campaign on Browse reef for which published data is available. The MODU utilised for the Exploration Campaign will be similar with similar lighting required for safe operations of the facility. Therefore the MODU facility light emissions would also be comparable to that of the Torosa wells used during a previous light intensity modelling and associated measured data completed by Environmental Resources Management (2010). Light characteristics and modelling of light sources for the Torosa assessment are based on measured lighting data (lux levels and wavelength) obtained whilst drilling the Torosa South-1 appraisal well on the edge of the South Reef lagoon and ambient data when no activities were occurring at Scott Reef (Environmental Resources Management, 2010). The drill rig used is a suitable analogue for the drill rig expected to be used for the VIC/P79S Exploration Campaign.

The light intensity values derived from the measured Torosa South 1 well campaign were utilised to represent the MODU facility lighting for the Exploration Campaign modelling.

4.2 Flare Light Emissions

The Exploration Campaign will require a MODU flare to dispose of the gas generated from well testing. The gas is produced and flared to allow for testing of the produced gas and oil as well as to calculate the size of the oil and gas reservoir and reservoir characteristics. The excess oil and gas is sent to the flare disposal system to be burnt. The flare for the MODU will be a horizontal boom flare extending out horizontally of the MODU deck. Flaring will occur for a duration of approximately 42 hours per well.

To inform the environmental impact assessment for the Exploration Campaign, light intensity from a flare flow rate of 40 MMscfd was modelled. This represents a peak flaring rate from the well test systems.

Based on Gas Processors Suppliers Association (2004), it has been calculated that this expected rate of flaring will result in a flare flame length of up to approximately 22 m. This flame will generate light. Analogues are utilised to determine the likely amount of light emitted from the flame. This is discussed in Section 4.3.2.

4.3 Methodology

4.3.1 Inverse Law

The light intensity modelling used the inverse square law of illuminance which states that *a doubling of distance results in a reduction in illuminance by four times*, i.e. as a surface that is illuminated by a light source moves away from the light source, the surface appears dimmer. Light emitted becomes dimmer in an inverse square relationship to distance as represented in Figure 4-1 and in the mathematical equation below:

$$E = \frac{I}{D^2}$$

Where

- E = illuminance (in lux),
- I = luminous intensity (in candela), and
- D = the distance from the light source in meters.

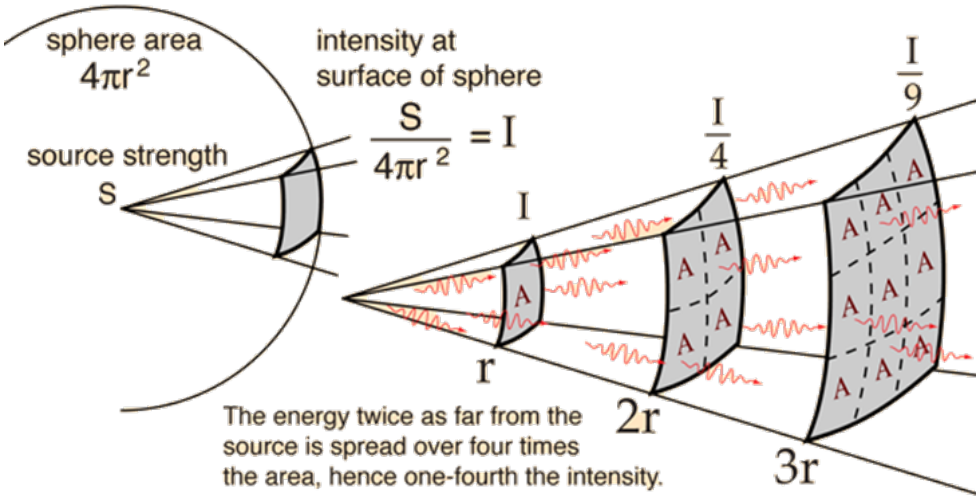


Figure 4-1: Inverse square law.

4.3.2 Analogues

As flares are not designed to be luminous, there is some uncertainty in calculating luminous intensity from a flare. To reduce the uncertainty, light measurements from an analogue, existing flares have been utilised to calculate likely light emissions from the flare. These analogues are documented within publicly available literature on light emissions from flares.

The analogues for gas flares were identified and are detailed in Table 4-1.

Table 4-1: Details of potential analogue natural gas flares.

ANALOGUE SITE	FACILITY TYPE	FLARE RATE	LUMINANCE INTENSITY	ILLUMINANCE METHOD	REFERENCE
Galoc FPSO – Philippines	Tamarind operated FPSO oil facility: Continuous gas flare	~15 MMscfd, 18–20 m high flame	Not specified	N/A (Flame height provided only)	Tamarind (2019)
Wheatstone LNG Plant – Onslow, WA	Chevron-operated onshore LNG facility: Safety flare	Not specified	Not specified	Modelled Illuminance (lux)	URS Australia (2010)
Narrabri Gas Project – Bibblewindi, NSW	Proposed Santos-operated onshore gas production facility: Safety flare	244 MMscfd, 30 m high flame	Not specified	Modelled Illuminance (lux) based on measured and calculated source data	Imbricata Environmental (2018)
Obigbo Oil Production Facility – Nigeria	Shell-operated oil production facility: Continuous flaring of associated gas	30 MMscfd	~1,805,000 cd	Measured Illuminance (lux)	Isichei and Sanford (1976) Nwaobi (2005) European Commission (2014)

The four analogues were compared to the expected flare characteristics (rates, flame heights) for the Exploration Campaign to determine if they were appropriate for use in this light emissions assessment.

The Galoc FPSO has a continuous flare which operates at a flare rate of ~15 MMscfd. However, it has not had light intensity levels or illuminance levels measured or modelled, and is therefore not considered further within this light intensity assessment.

The Wheatstone LNG flare has modelled illuminance information, but no details on flare rate are publicly available. As this information is unknown, the Wheatstone LNG flare was not carried through to the next stage of assessment as a potential analogue.

Despite the similar flame height (30 m for Narrabri compared to the 22 m from the exploration campaign MODU), the Narrabri gas flare rate is >200 MMscfd, which is an order of magnitude higher than that for the Exploration Campaign, and as such was not considered an appropriate analogue and is not discussed further in this assessment.

The Obigbo facility has a continuous flare that is of similar scale and has a flare rate (30 MMscfd) close to the rate expected for the Exploration Campaign (40 MMscfd). For these reasons, the Obigbo oil production facility was considered an appropriate analogue for the MODU flare. A detailed study describing lux levels at varying distances from the operational flare was also available for the Obigbo oil production facility (Isichei and Sanford, 1976). The detail provided in that study, as well as Nwaob (2005) and European Commission (2014) allow for the characteristics of the Obigbo flare to be scaled and for characterisation of other flares. This data provides the basis for the following flare light intensity modelling.

4.3.3 Model

The light intensity model was built in Microsoft Excel utilising the inverse law of illumination (Section 4.3.1). The following assumptions were made.

- Obigbo oil production facility flare characteristics as stated in Table 4-1,
- Combustion characteristics of the Exploration Campaign flare are similar to Obigbo,
- No allowance was made for atmospheric or topographic interactions including shadowing, absorption or scattering, as such the model is conservative and likely to overestimate illuminance at distance,
- Flare luminous intensity is calculated directly proportional to flare flow rate, and
- Facility luminous intensity is combined with the flare luminous intensity as a total luminous intensity input into the model.

Illuminance was calculated every 100 m from the flare source (in lux), and results overlaid in geographic information system (GIS) to identify geospatial contours.

A verification exercise of the Xodus Group light decay model (Xodus model) was conducted using the light decay model developed by Jacobs–SKM for the Browse FLNG Draft Environmental Impact Statement (Jacobs-SKM, 2014). The verification exercise for the Xodus model plotted the Xodus Group light decay model expected illuminance for the Browse Development against the Jacobs–SKM modelled illuminance. The Xodus model predicted illumination levels aligned with the Jacobs-SKM model, verifying the Xodus model outcomes.

4.4 Results and Recommendations

The results of the light intensity modelling are summarised in Table 4-2 and are also shown graphically for the Exploration Campaign in Figure 4-2 to Figure 4-5.

Table 4-2: Illuminance modelling results and Obigbo analogue.

SITE/SCENARIO	FLARE LUMINANCE INTENSITY (CD)	LIGHT ILLUMINANCE (LUX) Distance from Facility (km)						
		0.5 km	1 km	5 km	10 km	20 km	30 km	60 km
Analogue Case								
Obigbo Facility – Nigeria	~1,805,000	7.2	1.8	0.072	0.018	0.004	0.002	< 0.002
Modelled Cases								
Exploration Campaign facility lighting from the MODU	~100,000	0.4	0.1	0.004	0.001	0.0002	<0.0001	<0.0001
Exploration Campaign combined facility lighting and flaring from the MODU (40 MMscfd)	~ 2,495,667	10.0	2.5	0.100	0.025	0.006	0.003	0.0007

For the Exploration Campaign, the model predicted the following for the facility lighting when flaring (Figure 4-2 and Figure 4-3):

- Light intensity levels greater than 0.1 lux are predicted to occur up to 5 km from the MODU, comparable to ambient light levels during full moon to twilight.
- Between 5 km and 16 km from the MODU, the model predicted light intensity levels comparable to ambient light levels during a quarter moon to full moon night sky (0.01 lux to 0.1 lux).
- Between 16 km and 49 km, light intensity levels were predicted to be between 0.01 lux and 0.001 lux, which is comparable to ambient light intensity levels between a moonless clear night sky and a quarter moon.
- Beyond 49 km, there was no measurable change to the ambient light intensity levels.

For the Exploration Campaign, the model predicted the following for the facility lighting when not flaring (Figure 4-4 and Figure 4-5):

- Light intensity levels greater than 0.1 lux are predicted to occur up to 1 km from the MODU, comparable to ambient light levels during full moon to twilight.
- Between 1 km and 3 km from the MODU, the model predicted light intensity levels comparable to ambient light levels during a quarter moon to full moon night sky (0.01 lux to 0.1 lux).
- Between 3 km and 9 km, light intensity levels were predicted to be between 0.01 lux and 0.001 lux, which is comparable to ambient light intensity levels between a moonless clear night sky and a quarter moon.
- Beyond 9 km, there was no measurable change to the ambient light intensity levels.

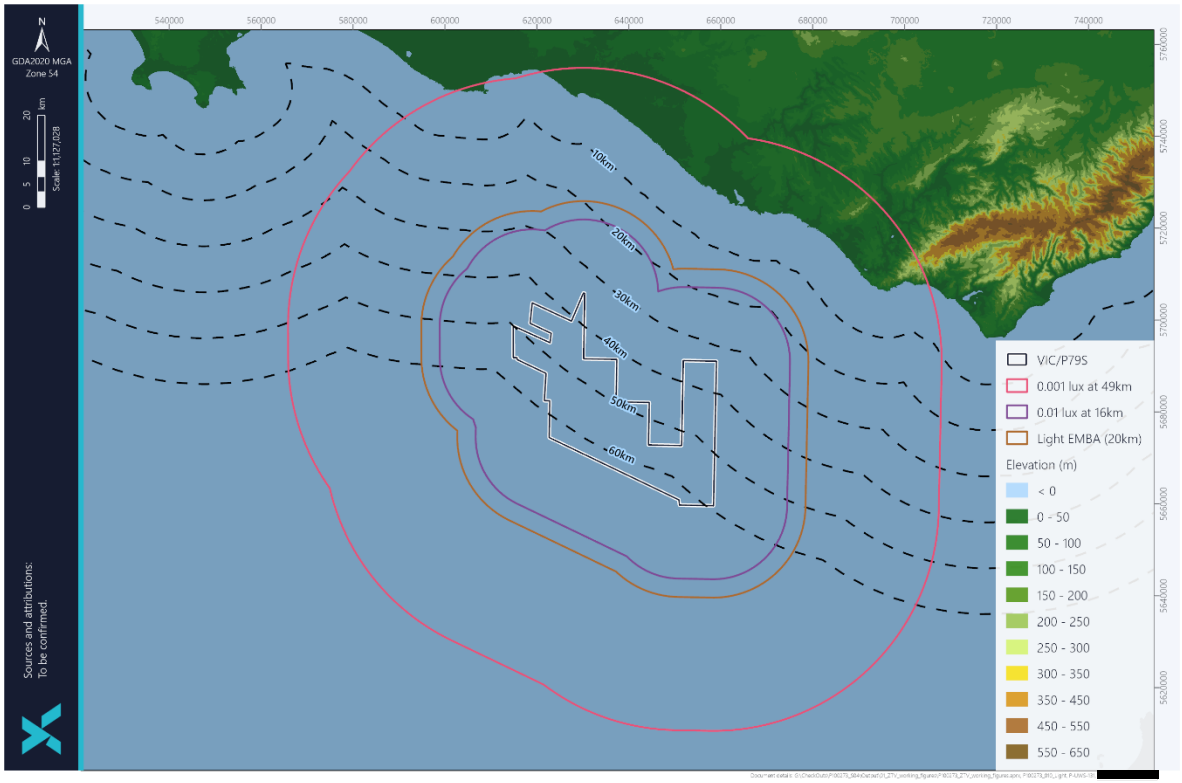


Figure 4-2: Map of expected light intensity (illuminance) levels from flare and facility lighting on the MODU during flaring (40 MMscfd).

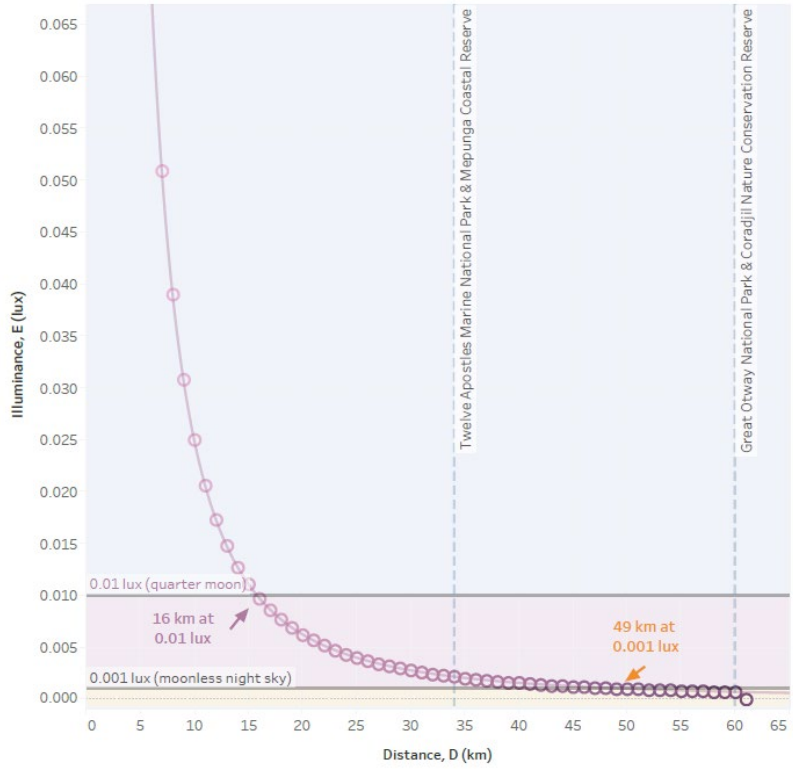


Figure 4-3: Expected light intensity levels from flare and facility lighting on the MODU during flaring (40 MMscfd) at receptor locations.

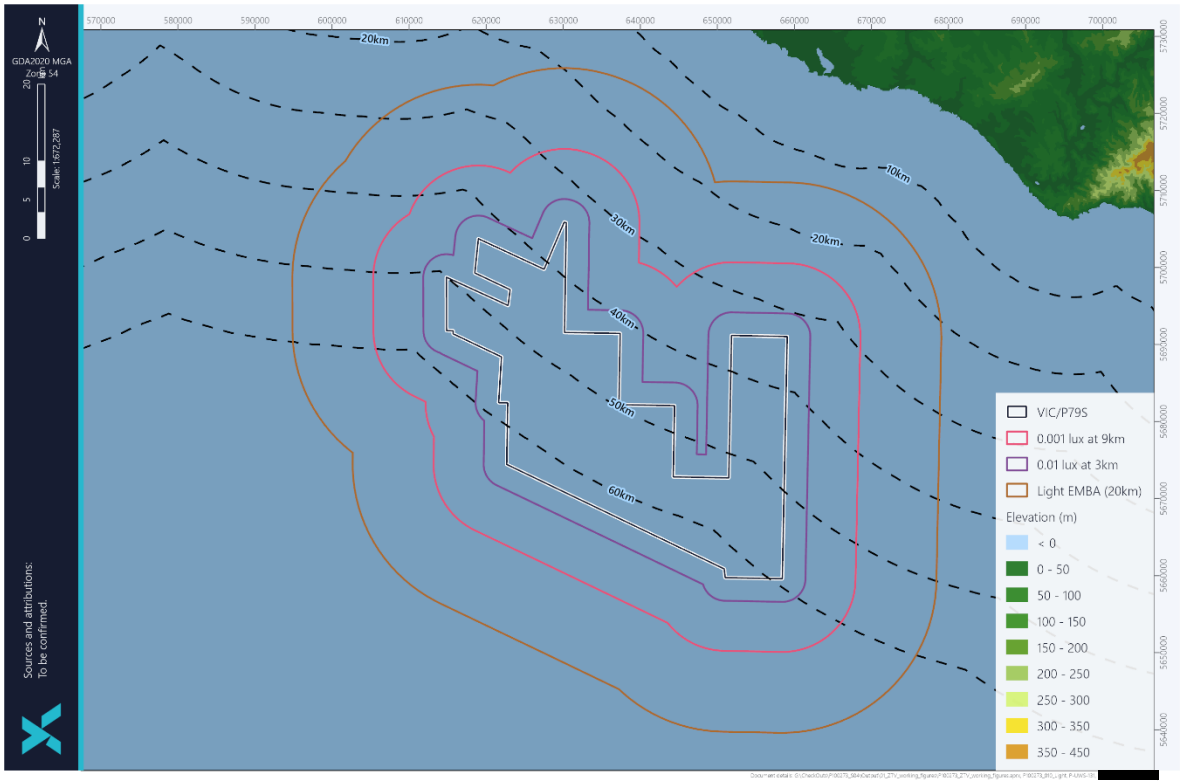


Figure 4-4: Map of expected light intensity (illuminance) levels from facility lighting on the MODU, when not flaring.

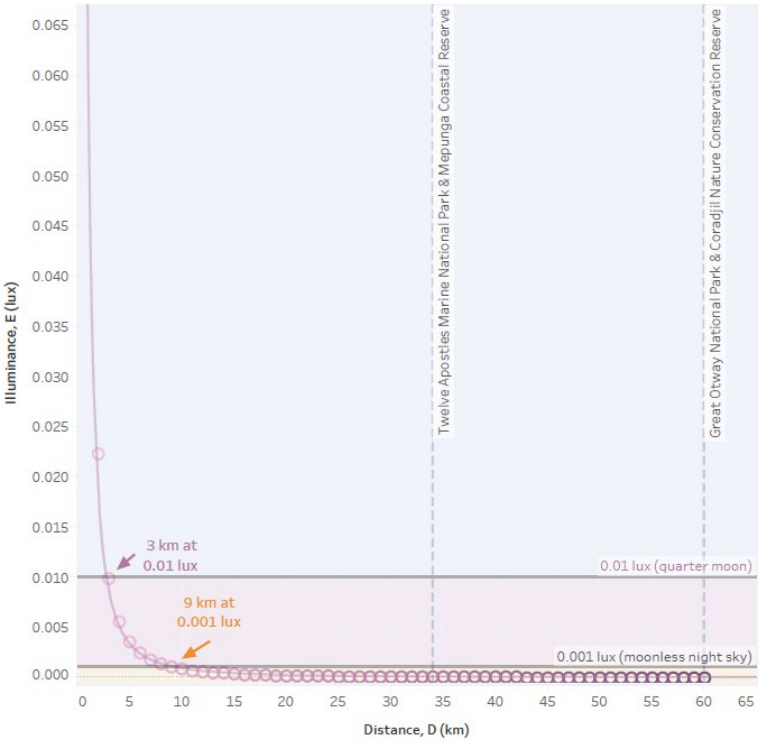


Figure 4-5: Expected light intensity levels from facility lighting on the MODU at receptor locations when not flaring.

As noted in Section 2.2, in recognition that photometric measurements are biased towards the human eye response to light, the spatial extent potentially impacted by visible light from the MODU, as a visible dot on the horizon, is out to a distance of 9 km from the position of the MODU when not flaring (Figure 4-4 and figure 4-5). Note: This is distinct from the biological light EMBA which is relevant for the potential assessment of impacts to, for example, birds.

The spatial extent potentially impacted by visible light from flaring and MODU lighting, as a visible dot on the horizon, is out to a distance of 49 km from the position of the MODU (Figures 4-2 and 4-3).

As shown in the light intensity results, the light intensity levels of the MODU structure received at the selected receptor locations of Twelve Apostles Marine National Park (34 km), Mepunga Coastal Reserve (34 km), Great Otway National Park (60 km), Coradjil Nature Conservation Reserve (60 km) and the nearby towns are comparable to the ambient light levels less than a quarter moon (0.01 lux) when flaring and less than a moonless clear night sky (0.001 lux) when not flaring, which are equivalent to the 'First Quarter' and 'New' moon phases shown in Figure 4-6, respectively.

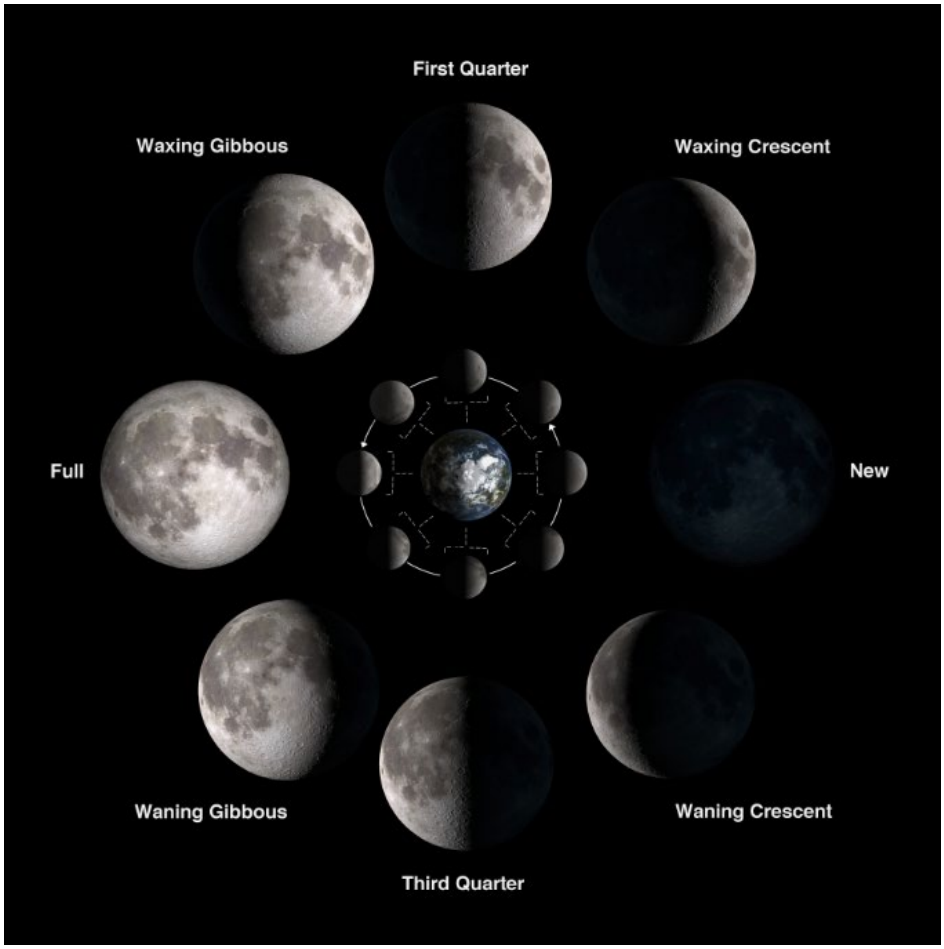


Figure 4-6: The moon phases. Credit: NASA/Bill Dunford (Johnston, 2020).

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Conoco Phillips Australia

Otway Exploration Drilling Campaign

Line of Sight Assessment and Light Intensity Modelling for T/49P

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1 INTRODUCTION

1.1 Project Overview

The Otway Exploration Drilling Campaign is located within Commonwealth waters in the Bass Strait in an area centred approximately 37.9 km offshore Victoria (VIC) and approximately 14.3 km west of King Island as pictured in Figure 1-1. The field lies in approximately 90-120 m of water within permit T/49P. ConocoPhillips Australia plan to execute an exploration well drilling campaign within T/49P. This will include drilling in up to six potential well locations and will occur for approximately 45 days per well. This campaign is referred to as the Exploration Campaign throughout the rest of this document.

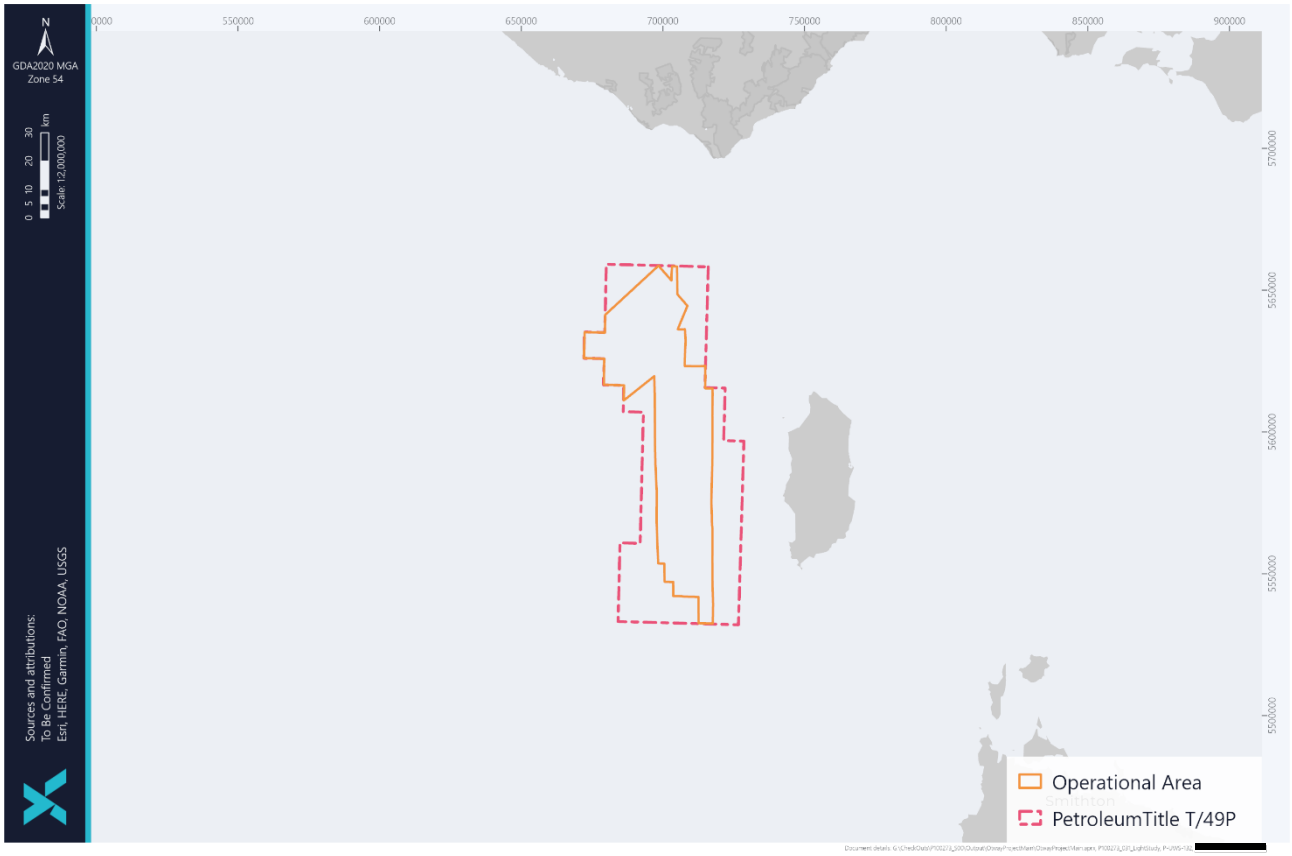


Figure 1-1 Operational area and potential well locations

1.2 Objective

The purpose of this technical note is to present the outcomes of the assessment undertaken to estimate the artificial light emissions from the Exploration Campaign. This study assessed distances from the considered operations to the physical equipment, lights and flaring from the mobile offshore drilling unit would be visible and where light levels from facility lighting and well test flaring reached thresholds corresponding to various natural light levels.

1.3 Scope

The operations of the mobile offshore drilling unit (MODU) and associated facilities and activities of the Exploration Campaign will require the physical presence of a MODU and generate artificial light emissions. The source of these emissions includes

- external facility lighting on vessels and Mobile Offshore Drilling Unit (MODU) for safe navigation and working conditions
- flaring of excess associated gas will be from a horizontal boom flare and will occur up to approximately 42 hours per event.

Both sources of light emissions are quantified and discussed in this technical note. The exact well locations are yet to be determined therefore all potential locations were considered for modelling (Figure 1-1).

The assessment included two sets of modelling:

- visible line of sight estimates
- light intensity (illuminance) modelling.

Light intensity modelling has been used as an indication of the measurable change in ambient light conditions, while line of sight estimates have been used as an indication of the distance that the facility and its lights may be visible. These quantifications have been used to develop two types of area used for subsequent environmental impact analysis (Table 1-1).

The modelling utilises the MODU as the basis for modelling as it will be the largest and tallest piece of infrastructure that will be infield for the Exploration Campaign The modelling light intensity modelling utilises the two major sources of light emissions as the basis for the model, the MODU lighting and flaring from the MODU for well testing. Artificial light emissions from vessels (e.g. support vessels, export tankers) associated with the Exploration Campaign were not included in the assessment due to their much smaller scale and/or temporary and transient nature.

Table 1-1 Predicted artificial light exposure and impact areas for the exploration campaign

ARTIFICIAL LIGHT ASSESSMENT AREAS	DESCRIPTION
Visible Light Exposure Area	The spatial extent of visible light that is predicted to occur from the exploration campaign. The threshold for this area is whether any part of the facility is visible as a dot on the horizon.
Potential Impact Area	The spatial extent of a measurable change in ambient light that is predicted to occur from the exploration campaign. The threshold for this area is an illuminance equivalent to ambient light on a moonless clear night sky/new moon (<0.001 lux). This is the area relevant to the impact assessment for planned light emissions from the exploration campaign.

2 LIGHT

2.1 Definition

Light is a form of energy that is emitted over a particular band of frequencies and wavelengths of the electromagnetic spectrum, and includes ultraviolet, visible (to humans) light and infrared light. The visible range for humans is approximately 400–700 nm. Fauna perceive light differently to humans, and their visible spectrum can vary between ~300 nm and >700 nm depending on the species (CoA 2020).

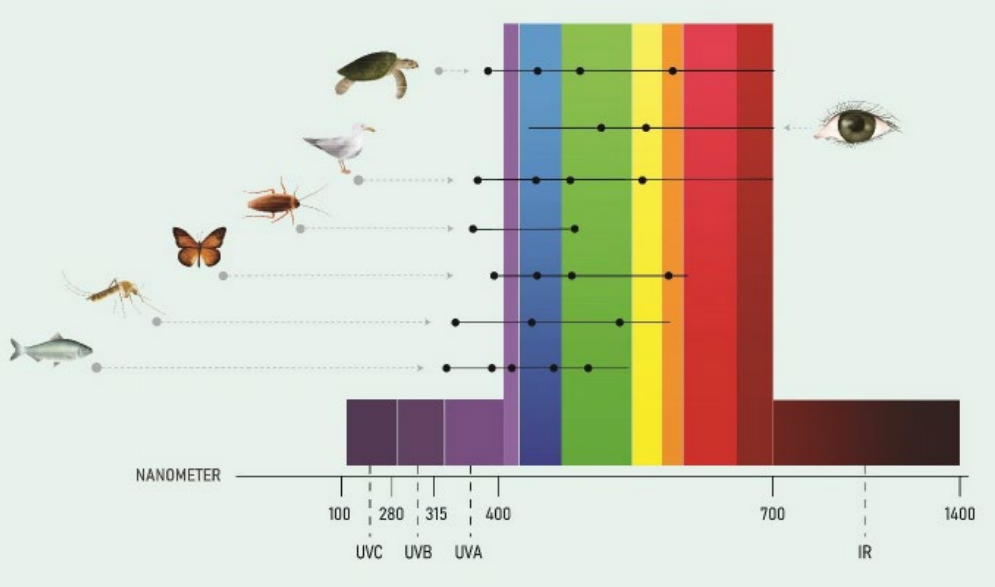


Figure 2-1: Ability to perceive different wavelengths of light in humans and wildlife is shown by horizontal lines. Black dots represent reported peak sensitivity. Note the common sensitivity to short wavelength light across all wildlife (Campos, 2017; Commonwealth of Australia, 2020).

Humans and fauna use photoreceptor cells (cones and rods) in the eye to detect light. Photopic vision, which occurs in bright conditions, activates the cones and allow the eye to see colour. Scotopic vision, which occurs in low light conditions, activates rods and allow the eye to see in shades of grey. Scotopic vision is more sensitive to shorter wavelength light than photopic visions (CoA 2020). Nocturnal species rely on scotopic vision and can therefore be sensitive to changes in light at this this high energy short wavelength end of the spectrum (i.e. ultraviolet/violet/blue light).

2.2 Measurement

Radiometry is the detection and measurement of electromagnetic radiation. With respect to optics, radiometry refers to the detection and measurement of radiant energy within the light (ultraviolet, violet, infrared) portion of the electromagnetic spectrum. Photometry is a subset of radiometry that applies to the visible light spectrum and measured values are also weighted to the typical response of a human eye. As humans and fauna perceive light differently, radiometric measurements are more biologically relevant, as they account for the energy emitted across

all light wavelengths (CoA 2020). Common quantities used to describe light in radiometric and photometric terms are provided in Table 2-1.

Table 2-1 Typical radiometric and photometric quantities

RADIOMETRIC			PHOTOMETRIC		
Quantity	Symbol	Units	Quantity	Symbol	Units
Radiant power	Φ_E	W	Luminous flux	Φ_V	lm
Radiant intensity	I_E	W/sr	Luminous intensity	I_V	lm/sr (or cd)
Irradiance	E_E	W/m^2	Illuminance	E_V	lm/m^2 (or lux)
Radiance	L_E	W/m^2sr	Luminance	L_V	lm/m^2sr

E = energetic; V = visual; W = watt; sr = steradian; lm = lumen; cd = candela

The conversion between radiometric and photometric units is dependent on the photopic spectral luminous efficiency function, V(λ), as defined by the Commission International de l'Eclairage (CIE) in 1924, and the spectral radiant power curve, $\Phi_E(\lambda)$, of the light source. The conversion is provided by the following relationship:

$$\Phi_V = K_m \int_{\lambda=380}^{\lambda=830} \Phi_E(\lambda)\, V(\lambda) \delta\lambda$$

Where:

- Φ_V is the luminous flux (lumens)
- K_m is a scaling factor equivalent to 683 lm/W
- $\Phi_E(\lambda)$ is the spectral radiant power (W/nm)
- V(λ) is the photopic spectral luminous efficiency function.

The photopic spectral luminous efficiency function, V(λ), is a function of wavelength and relates to how a human eye responds to that wavelength of light. In humans the photoreceptor cells are more responsive to green/yellow wavelength light compared to red or violet. V(λ) can be approximated by the following non-linear regression:

$$V(\lambda) = 1.019e^{-285.4(\lambda - 0.559)^2}$$

Empirical data shows that the function has a maximum value at a wavelength of 555 nm Figure 2-2, which is the wavelength at which the human eye is most responsive. Spectral luminous efficiency varies across different animal species this is discussed further in section 2.3.

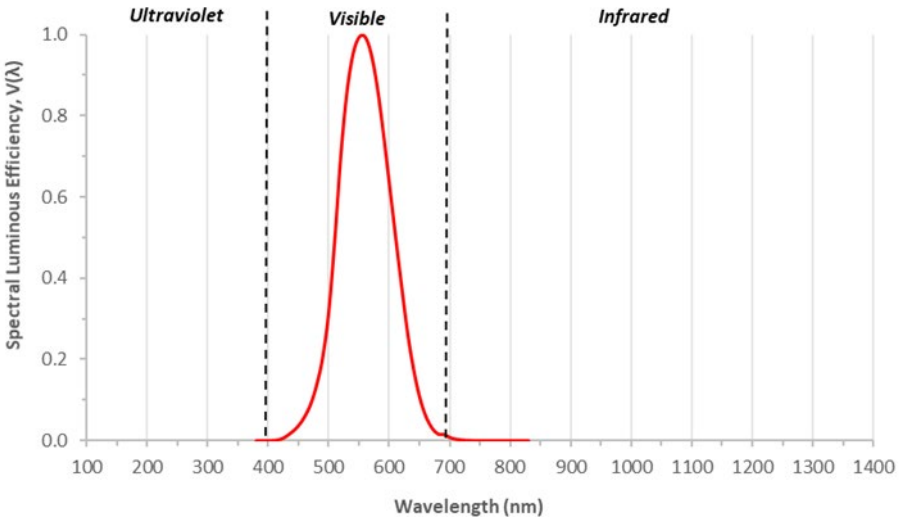
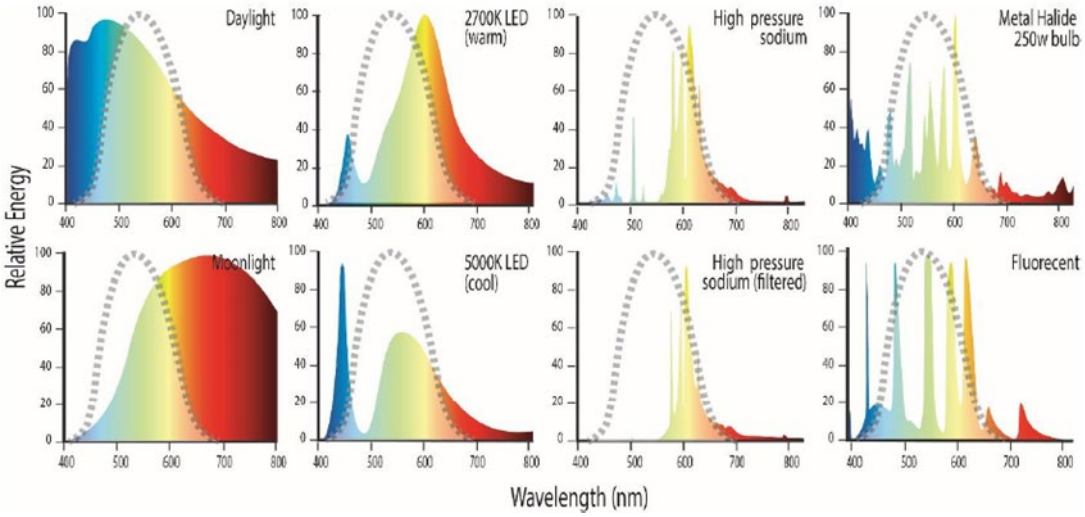


Figure 2-2 Spectral luminous efficiency function

The spectral radiant power of a light source is also related to wavelength, however, will also change depending on the type of light (Figure 2-3, Figure 2-4). The significance of a spectral power curve becomes apparent when using a photometric measurement to describe light for a source that is, for example, high in blue light emissions (such as cool LED or metal halide; Figure 2-3) or high in infrared emissions (such as a gas flare; Figure 2-3) as a photopic measurement may be underestimating the amount of light present as the photopic curve puts a higher weighting on light emitted in the green/yellow range compared to the blue or red (Figure 2-1).



(Source: (CoA 2020)

Figure 2-3 Relative spectral radiant power curves for common natural and artificial light sources (shown in colour) with photopic response curve (grey dashed line)

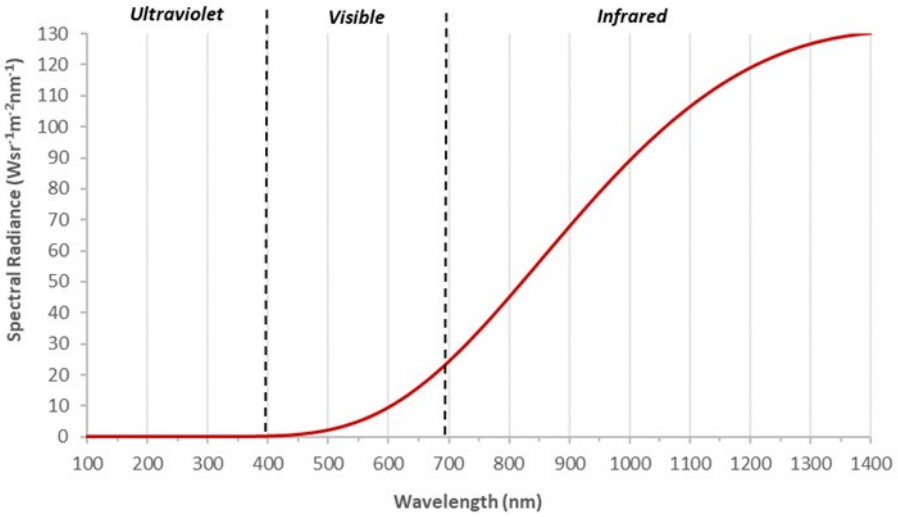


Figure 2-4 Predicted spectral radiance curve for a natural gas flare (based on 2,000 K blackbody emission)

2.3 Artificial Light Assessment

To date, light monitoring equipment has predominantly used photopic measurements. Few light measurement techniques that are appropriate for capturing biologically relevant light and are commercially available exist (Table 1 in CoA 2020). As described in Section 2.2, due to the photopic spectral luminous efficiency function being based on a human eye response, there is lower sensitivity in photometric measurements to shorter wavelength light (ultraviolet, violet, blue) that is important to nocturnally active marine fauna. However, as noted within the National Light Pollution Guidelines (CoA 2020), photometric measures can be used in impact assessment on wildlife, but limitations should be acknowledged and considered.

For the light intensity (illuminance) modelling component of the artificial light emissions assessment for the Exploration Campaign (refer to Section 4), photometric measurements have been used. This decision was based on the type of published measured light data that was available to identify analogues and to use as input to the light modelling calculations.

Photometric light can be described in terms of luminous flux, luminous intensity and illuminance:

- luminous flux is a measure of the amount of light from a source emitted in total regardless of direction (unit of measurement: lumens)
- luminous intensity is the amount of light emitted in a particular direction; the direction is typically stated in steradians (unit of measurement: candelas)
- illuminance is the amount of light reaching an area (unit of measurement: lux; where 1 lux is equivalent to 1 lumen/m^2).

These terms are graphically depicted in Figure 2-4.

Illuminance (also referred to as light intensity) is the term of interest for environmental impact assessment for the ConocoPhillips Australia.

Typical light illuminance values from natural light sources are described in Table 2-2 and these are considered representative of ambient light levels in the vicinity of the Exploration Campaign in Victoria and King Island.

There are currently no published or accepted thresholds at which artificial light may impact fauna. Consequently, the minimum threshold used to describe a change in ambient light conditions within this artificial light assessment is an illuminance equivalent to a new moon / moonless clear night sky (0.001 lux), beyond this threshold no impact to light sensitive fauna is assumed. This threshold (0.001 lux) was selected on the basis that fauna undertake nocturnal activities under the natural range of full moon (0.1 lux) to new moon (0.001 lux) without known adverse impacts.

In recognition that the photopic curve is biased towards a human eye response to light, and to remove some of the scientific uncertainty associated with the way light is measured, a Potential Impact Area' (i.e. the area relevant for impact assessment of planned light emissions; Table 1-1) has been defined. This Potential Impact Area conservatively uses an initial luminous intensity value 20% higher than the measured/modelled analogue value. This additional distance provides a layer of conservatism to the modelling and subsequent impact assessment.

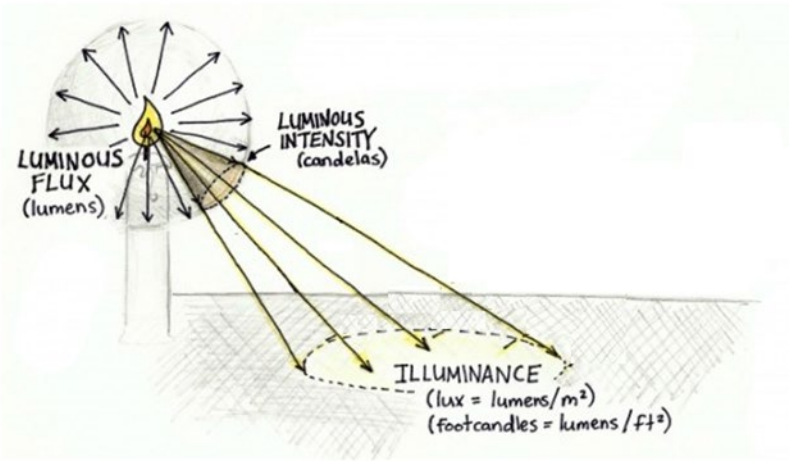


Figure 2-5 Photopic light terminology

Table 2-2 Summary of natural light illuminance

NATURAL LIGHT SOURCE	LIGHT ILLUMINANCE (LUX)
Direct sunlight	100,00–130,000
Full daylight, indirect sunlight	10,000–20,000
Overcast day	1,000
Very dark day	100

NATURAL LIGHT SOURCE	LIGHT ILLUMINANCE (LUX)
Twilight	10
Deep twilight	1
Full moon	0.1
Quarter moon	0.01
Moonless clear night sky (new moon)[1]	0.001
Moonless overcast night sky	0.0001

(Source: ERM 2010)

[1] *Impact threshold utilised in this report is 0.001 lux, beyond this threshold no impact to light sensitive fauna is assumed.*

3 VISIBLE LINE OF SIGHT ASSESSMENT

3.1 Methodology

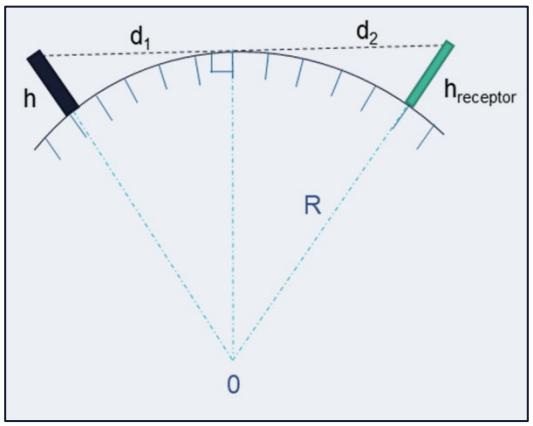
A visible line of sight analysis was conducted using the methodology described in Stallings (2014) for the MODU to determine the worst-case potential extent of visible light for the ConocoPhillips Australia. Line of sight and viewshed analysis is typically used in environmental impact assessment for the assessment of impact to visual amenity where an impact may alter a perceived sense of place or inherent value. The visibility of an artificial light does not imply a measurable change in ambient light (and therefore a potential environmental impact), this is estimated though change to illuminance as discussed in Section 4).

Line of sight calculations utilised the following method:

$$d = \left(2 \cdot \frac{4}{3} R h_1 + h_1^2\right)^{0.5} + \left(2 \cdot \frac{4}{3} R h_2 + h_2^2\right)^{0.5}$$

Where

- h_1 = height of object
- h_2 = height of receptor
- R = radius of earth
- d = total line of sight $(d_1 + d_2)$



The analysis was completed using assumed heights of an analogue MODU for the Exploration Campaign, with final designs being confirmed during front end engineering (FEED) (Table 3-1). Receptor heights modelled included the highest point on King Island (165m above sea level) as well as a receptor at sea level.

Table 3-1 Exploration Campaign facility infrastructure and receptor heights

EXPLORATION CAMPAIGN FACILITY INFRASTRUCTURE	HEIGHT OF RECEPTOR (M) ABOVE SEA LEVEL	HEIGHT OF FACILITY / LIGHTING / FLARE (M) ABOVE SEA LEVEL
Receptor at King Island (highest point)		
Main deck light	165	40
Process module lights	165	50
Lighting on the flare tower/drill rig	165	80
Derrick (navigation lights)	165	120
Boom flare flame height (horizontal boom)	165	40
Receptor at Sea Level		
Main deck light	0	40
Process module lights	0	50
Lighting on the flare tower/drill rig	0	80
Derrick (navigation lights)	0	120
Boom flare flame height (horizontal boom)	0	40

3.2 Results and Recommendations

The line of sight assessment results for the different heights of the MODU facilities and receptors is outlined in Table 3-2.

The line of sight assessment shows that at sea level the maximum distance the tip of the MODU derrick (navigation lights) would be visible above the horizon was 45km. The flare and equipment above main deck level would be visible from 26km from the MODU location.

From the maximum height of King Island the tip of the MODU derrick (navigation lights) would be visible above the horizon when the MODU was up to 98km from King Island. The flare and equipment above deck level would be visible when the MODU was up to 79km from King Island.

The line of sight assessment indicates that the MODU will be visible as a small object or light on the horizon from King Island and to a lesser extent Great Otway National Park during the drilling campaign (Table 3-2 and Figure 3-2)[2]. It is likely that flaring will be visible at elevated locations on King Island and Great Otway National Park.

It is recommended that a view shed analysis of the MODU structure be completed to quantify the visual impact and provide a communication tool to stakeholders of King Island and Great Otway National Park.

Table 3-2 Exploration campaign facility visual line of sight distances

EXPORATION CAMPAIGN INFRASTRUCTURE	HEIGHT OF RECEPTOR (m)	HEIGHT OF FACILITY / LIGHTING / FLARE (m)	VISIBLE RADIUS - LINE OF SIGHT ANALYSIS (km)
Receptor King Island (highest point)			
Main deck light	165	40	79.0
Process module lights	165	50	82.1
Lighting on the drill rig	165	80	89.8
Derrick (navigation lights)	165	120	98.1
Flare flame height (horizontal boom)	165	40	79.0
Receptor Sea Level			
Main deck light	0	40	26.1
Process module lights	0	50	29.1
Lighting on the drill rig	0	80	36.9
Derrick (navigation lights)	0	120	45.2
Flare flame height (horizontal boom)	0	40	26.1

[2] *The expected position (including the 2 km buffer around the potential drill locations) of the MODU has been accounted for in the development of the Visible Light Exposure Area, with the respective distances being measured from the entire alignment along which the MODU may move instead of a single point.*

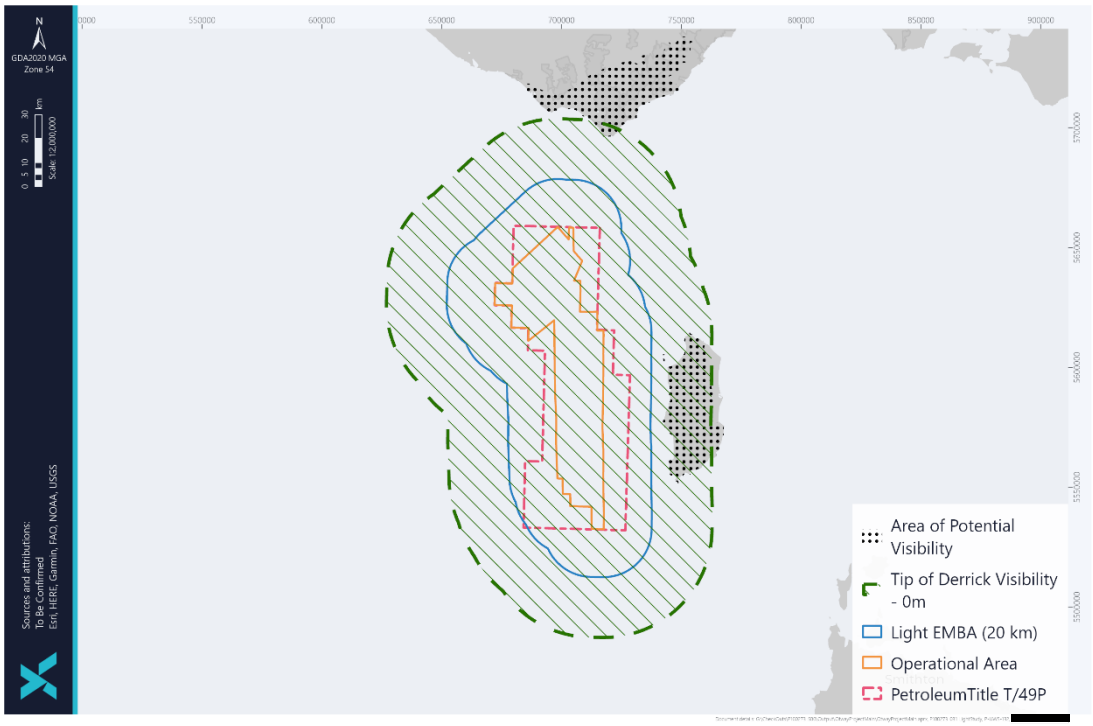


Figure 3-1 Area of Visibility (Derrick)

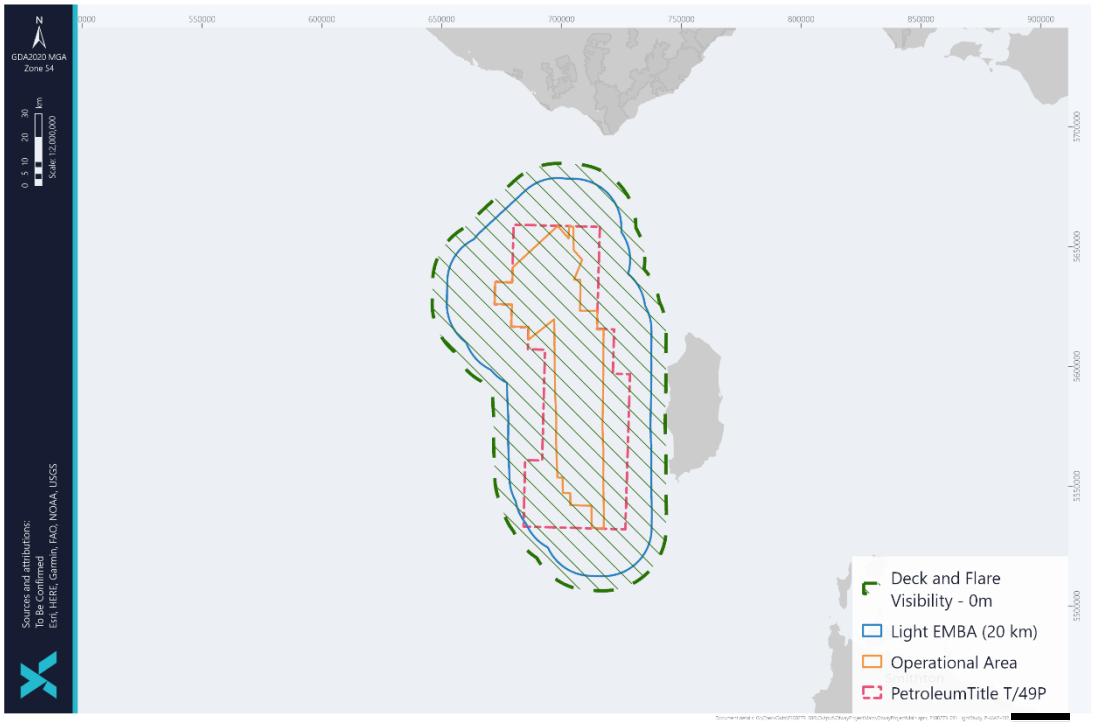


Figure 3-2 Area of Visibility (Deck flare and derrick)

4 LIGHT INTENTSITY MODELLING

The two sources of artificial lighting (facility and flaring) for the Exploration Campaign were assessed separately, using published modelled and measured data as analogues.

It is noted that most commercial light modelling software requires the input of a number of factors, such as the light fitting type, quantity, and location of light sources – information which is not available at this preliminary stage. As such, the use of analogues was adopted, as this provided a real-world analogue on which to base the artificial light emissions assessment. It is also considered a conservative approach as does not include any best practice or additional mitigation measures that may be adopted by ConocoPhillips during the FEED of the project.

4.1 Facility Lighting

It is expected that the MODU for the Exploration Campaign will have a similar lit surface area as the drill rig utilised for the Woodside Torosa drilling campaign on Browse reef. The MODU utilised for the Exploration Campaign will be similar with similar lighting required for safe operations of the facilities. Therefore the MODU facility light emissions would also be comparable to that of the Torosa facilities used during a previous light intensity modelling completed by ERM (2010). Light characteristics and modelling of light sources for the Torosa assessment are based on measured lighting data (lux levels and wavelength) obtained whilst drilling the Torosa South-1 appraisal well on the edge of the South Reef lagoon and ambient data when no activities were occurring at Scott Reef (SKM and ERM 2008). The drill rig used is a suitable analogue for the drill rig planned to be used for the T/49P Exploration Campaign.

The light intensity values derived from the measured Torosa South 1 well campaign are utilised for MODU facility lighting for the Exploration Campaign modelling.

4.2 Flare Light Emissions

The Exploration Campaign will require a MODU flare to dispose of the gas generated from well testing. The gas is produced and flared to allow for testing of the produced gas and oil as well as to calculate the size of the oil and gas reservoir. The excess oil and gas is sent to the flare disposal system to be burnt. The well test and flare system includes production systems, separator, knock out drums, ignition system and a flare. The flare for the MODU will be a horizontal boom flare extending out horizontally of the MODU deck. Flaring will occur for a duration of approximately 42 hours per well.

To inform the environmental impact assessment for Exploration Campaign environmental approvals, light intensity from a flare flow rate of 25mmscfd was modelled. This represents a peak flaring rate from the well test systems.

Using the Gas Processors Suppliers Association Engineering Data Book (1998), it has been calculated that this expected rate of flaring will result in a flare flame length of approximately 14 m. This flame will generate light. Analogues are utilised to determine the likely amount of light emitted from the flame. This is discussed in section 4.3.2.

4.3 Methodology

4.3.1 Inverse Law

The light modelling used the inverse square law of illuminance which states that *a doubling of distance results in a reduction in illuminance by four times*, i.e. as a surface that is illuminated by a light source moves away from the light source, the surface appears dimmer. Light emitted becomes dimmer in an inverse square relationship to distance as represented in Figure 4-1 and in the mathematical equation below:

$$E = \frac{I}{D^2}$$

Where

- E = illuminance (in lux)
- I = luminous intensity (in candela)
- D = the distance from the light source in meters.

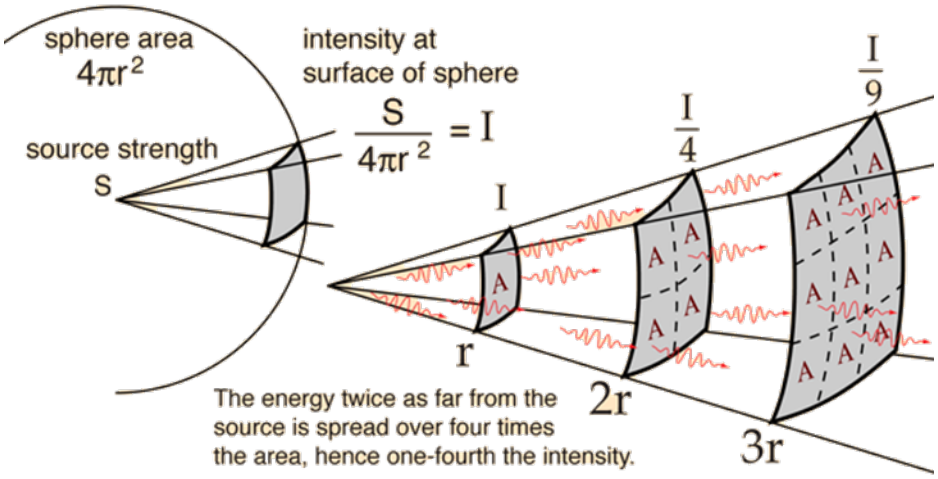


Figure 4-1 Inverse square law

Therefore, it is possible to calculate luminance intensity if the illuminance and the distance from the source is known (and vice versa).

4.3.2 Analogues

As flares are not designed to be luminaries (light emitting devices) there is some uncertainty in calculating luminance intensity from a flare. To reduce the uncertainty light measurements from an analogue existing flare have been utilised to calculate likely light emissions from the flare. These analogues are documented within publicly available literature on light emissions from flares.

The following analogues for gas flares were identified and are detailed in Table 4-1:

- Galoc Oil FPSO – Philippines
- Obigbo Oil Production facility – Nigeria
- Narrabri Gas Project safety flare – New South Wales
- Wheatstone LNG facility flare – Western Australia.

Table 4-1 Details of potential analogue natural gas flares

ANALOGUE SITE	FACILITY TYPE	FLARE RATE	LUMINANCE INTENSITY	ILLUMINANCE METHOD	REFERENCE
Galoc FPSO – Philippines	Tamarind operated FPSO oil facility continuous gas flare	~15 MMscfd 18–20 m high flame	Not specified	N/A (Flame height provided only)	Tamarind 2019
Wheatstone LNG Plant – Onslow, WA	Chevron-operated onshore LNG facility: Safety flare	Not specified	Not specified	Modelled Illuminance (lux)	URS 2010
Narrabri Gas Project – Bibblewindi, NSW	Proposed Santos-operated onshore gas production facility: Safety flare	244 MMscfd 30 m high flame	Not specified	Modelled Illuminance (lux) based on measured and calculated source data	Imbricata 2018
Obigbo North – Nigeria	Shell-operated oil production facility: Continuous flaring of associated gas	30 MMscfd	~1,805,000 candelas	Measured Illuminance (lux)	Isichei et al 1976 Nwaob 2005 European Commission 2014

The four analogues were compared to the expected flare characteristics (rates, flame heights) for the Exploration Campaign to determine if they were appropriate for use in this light emissions assessment.

The Galoc FPSO has a continuous flare which operates at a flare rate of ~15mmscfd, relatively close to the flare rate expected in the Exploration Campaign. However, the Galoc FPSO has not had light intensity levels or illuminance levels measured or modelled, and is therefore not considered further within this light intensity assessment.

The Wheatstone LNG flare has modelled illuminance information, but no details on flare rate are publicly available. As an unknown, the Wheatstone LNG flare was carried through to the next stage of assessment as a potential analogue.

Despite the similar flame height (30 m for Narrabri compared to the 14.5 m from the Exploration Campaign MODU), the Narrabri gas flare rate is >200 MMscfd, which is an order of magnitude higher than that for the Exploration Campaign and as such was not considered an appropriate analogue and is not discussed further in this assessment.

The Obigbo facility has a continuous flare that is of similar scale and has a flare rate in the same order of magnitude to the rate expected for the Exploration Campaign. For these reasons the Obigbo oil production facility was considered an appropriate analogue for the MODU flare. A detailed study describing lux levels at varying distances from the operational flare was also available for the Obigbo oil production facility (Isichei et al. 1976). The detail provided in that study, as well as Nwaob (2005) and European Commission (2014) allows for the characteristics of the Obigbo flare to be scaled and allow for characterisation of other flares. This data provides the basis for the following flare light intensity modelling.

4.3.3 Model

The light model was built in Microsoft Excel utilising the inverse law of illumination (Section 4.2.1.1). The following assumptions were made.

- Obigbo North flare characteristics as stated in Table 4-1.
- Combustion characteristics of the Exploration Campaign flare are similar to Obigbo.
- No allowance was made for atmospheric or topographic interactions including shadowing, absorption or scattering as such the model is conservative and likely to overestimate illuminance at distance.
- Flare luminance intensity is calculated directly proportional to flare flow rate.
- Facility luminance intensity is combined with the flare luminance intensity as a total luminance intensity input into the model

Illuminance was calculated every 100 m from the flare source (in lux), and results overlaid in GIS to identify geospatial contours.

A verification exercise of the Xodus Group light decay model (Xodus model) was conducted using the light decay model developed by Jacobs–SKM for the Browse FLNG Draft Environmental Impact Statement (Jacobs–SKM 2014). The verification exercise for the Xodus model plotted the Xodus Group light model expected illuminance for the Browse Development against the Jacobs–SKM modelled illuminance for the Browse Development. The Xodus model predicted illumination levels aligned with the Jacobs - SKM model verifying the Xodus model outcomes.

4.4 Results and Recommendations

The results of the light intensity modelling are summarised in Table 4-2 and are also shown graphically for the Exploration Campaign in Table 4-2 and Figure 4-4.

Table 4-2 Illuminance modelling results and Obigbo analogue

SITE/SCENARIO	FLARE LUMINANCE INTENSITY (CD)	LIGHT ILLUMINANCE (LUX) Distance from Facility (km)						
		0.5 km	1 km	5 km	10 km	20 km	30 km	40 km
Analogue Case								
Obigbo Facility – Nigeria	~1,805,000	7.2	1.8	0.072	0.018	0.004	0.002	< 0.002
Modelled Cases								
Exploration Campaign facility lighting from the MODU	~100,000	0.4	0.1	0.004	0.001	0.0003	<0.0001	<0.0001
Exploration Campaign combined facility lighting and flaring from the MODU (25MMscfd)	~1,604,167	6.4	1.6	0.064	0.016	0.004	0.002	0.001

For the Exploration Campaign, the model predicted the following for the combined facility lighting and flaring rate of 25 MMscfd during flaring (Figure 4-2):

- Light intensity levels greater than 0.1 Lux up to 5 km from the MODU, comparable to ambient light levels during full moon to twilight.
- Between 5 km and 13 km from the MODU, the model predicted light intensity levels comparable to ambient light levels during a quarter moon to full moon night sky (0.01 Lux to 0.1 Lux).
- Between 13 km and 40 km, light intensity levels were predicted to be between 0.01 Lux and 0.001 Lux, which is comparable to ambient light intensity levels between a moonless clear night sky and a quarter moon.
- Beyond 40 km there was no measurable change to the ambient light intensity levels.

For the Exploration Campaign, the model predicted the following for the facility lighting when not flaring (Figure 4-3):

- Light intensity levels greater than 0.1 Lux up to 1 km from the MODU, comparable to ambient light levels during full moon to twilight
- Between 1 km and 4 km from the MODU, the model predicted light intensity levels comparable to ambient light levels during a quarter moon to full moon night sky (0.01 Lux to 0.1 Lux)
- Between 4 km and 10 km, light intensity levels were predicted to be between 0.01 Lux and 0.001 Lux, which is comparable to ambient light intensity levels between a moonless clear night sky and a quarter moon
- Beyond 10 km there was no measurable change to the ambient light intensity levels.

As noted in Section 2.3, in recognition that photometric measurements are biased towards the human eye response to light, the Potential Impact Area for flare lighting at 25 MMscfd has been defined as a distance of 10 km from the expected position of the MODU when not flaring.

Therefore, during the operational phase of the ConocoPhillips Australia, the Potential Impact Area for flare lighting is 40 km from the expected position of the MODU during flaring, which will reduce to 10 km from the expected position of the MODU when not flaring Figure 4-4 and Figure 4-5.

It is recommended that environmental impact assessment consider the potential impact of light emissions. Based on the outcome of the environmental impact assessment it is recommended that the project conducts a review of facility lighting design and management against the *Light Pollution Guidelines: National Light Pollution Guidelines for Wildlife* (DoEE, 2020) Principles of Best Practice Lighting Design and incorporate ALARP lighting controls.

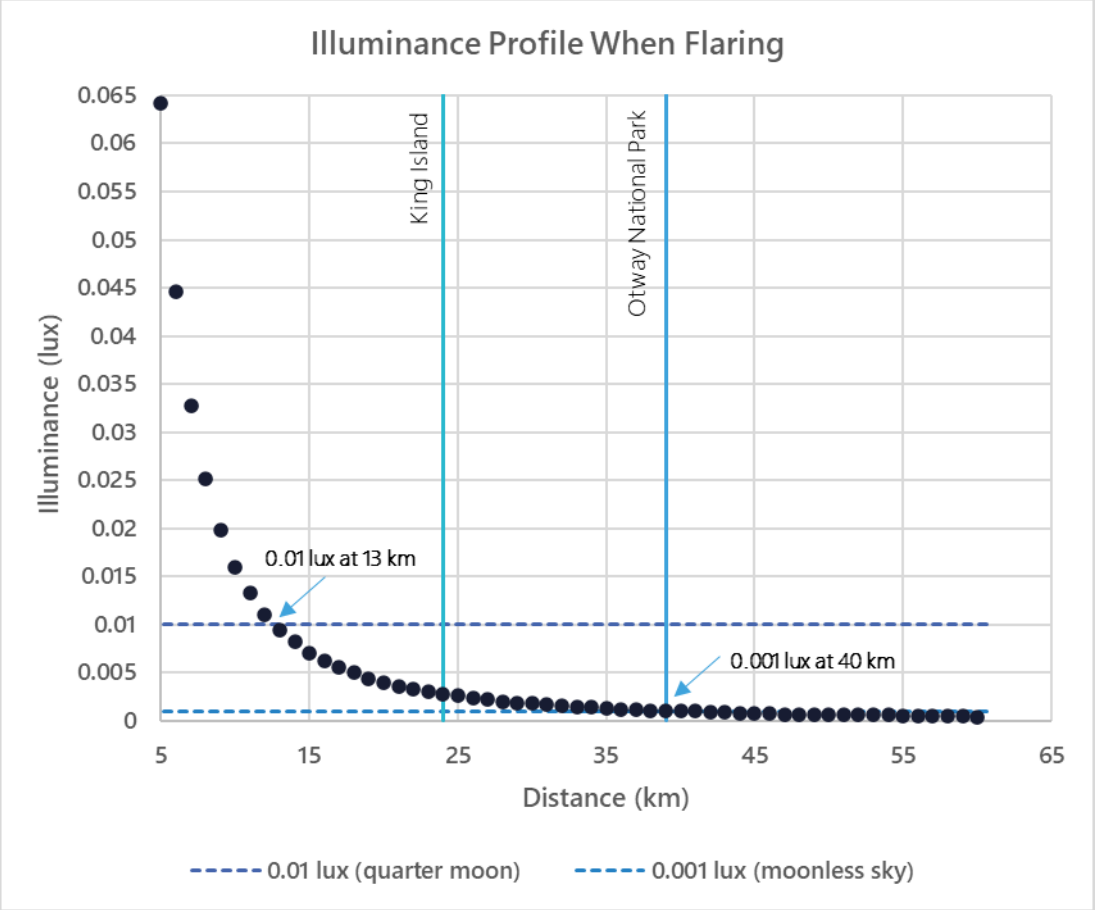


Figure 4-2 Expected light intensity levels from flare and facility lighting on the MODU during flaring (25 MMscfd)

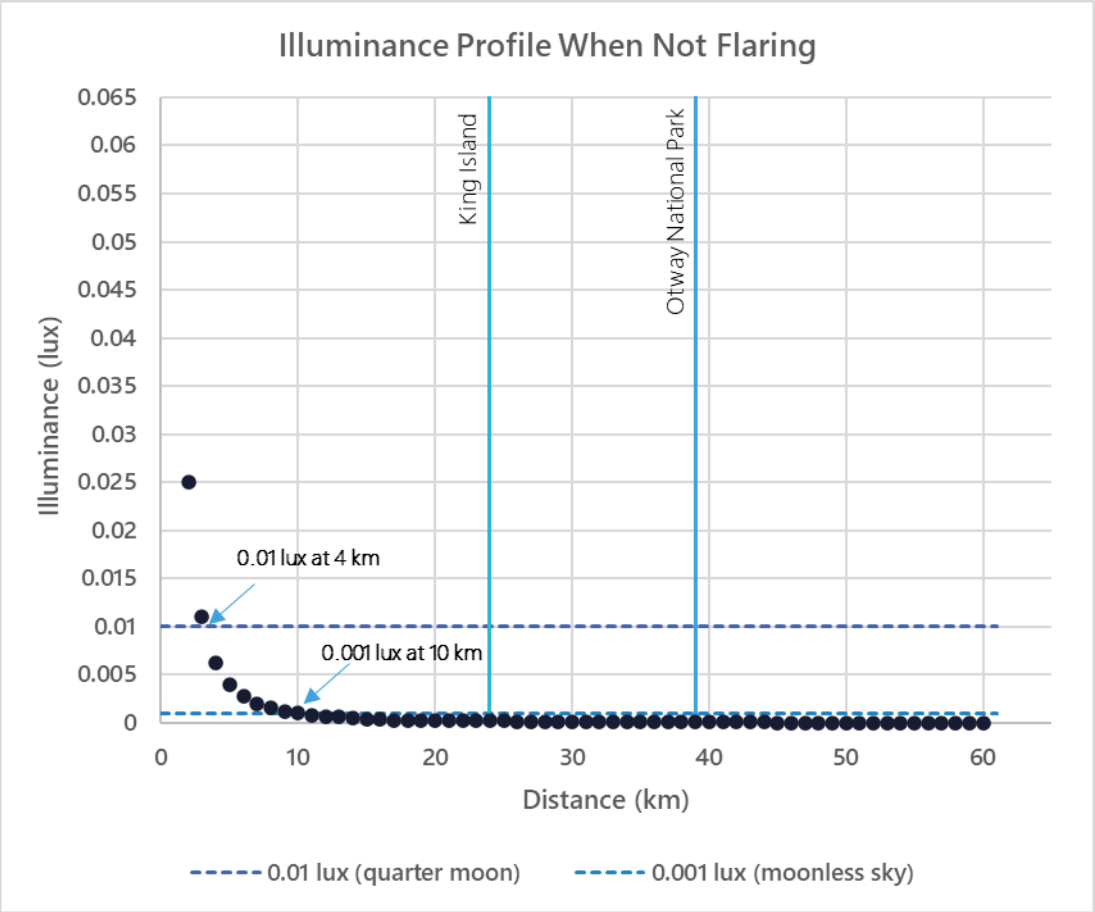


Figure 4-3 Expected light intensity levels from facility lighting on the MODU when not flaring

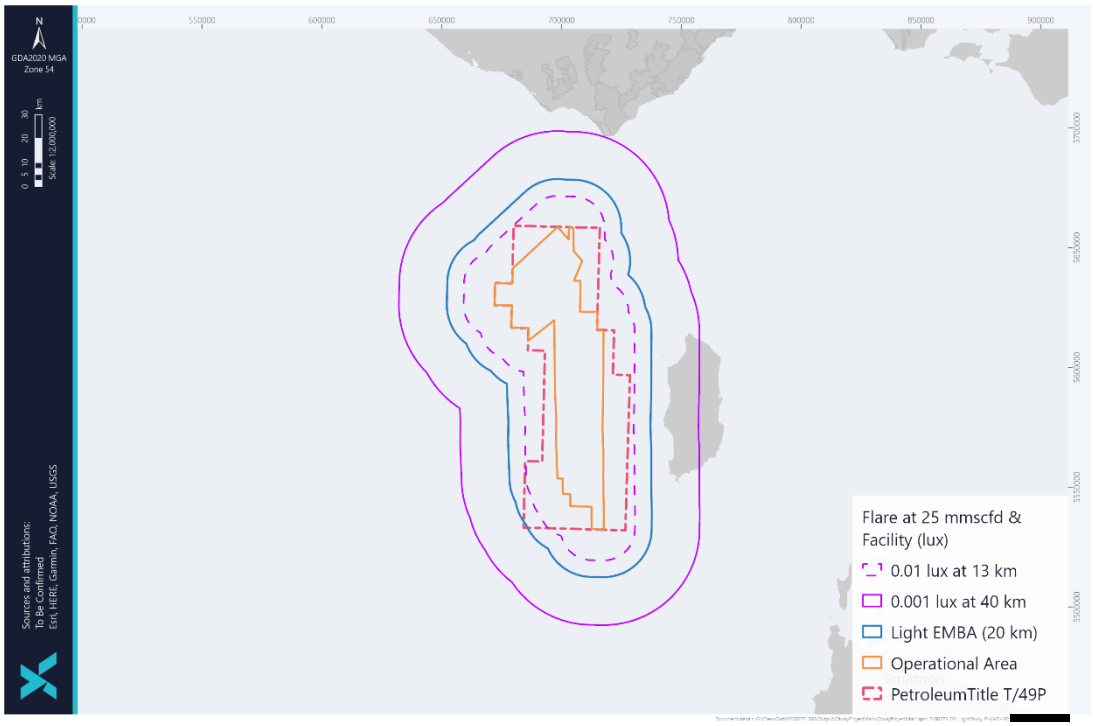


Figure 4-4 Expected light intensity levels from flare and facility lighting on the MODU during flaring

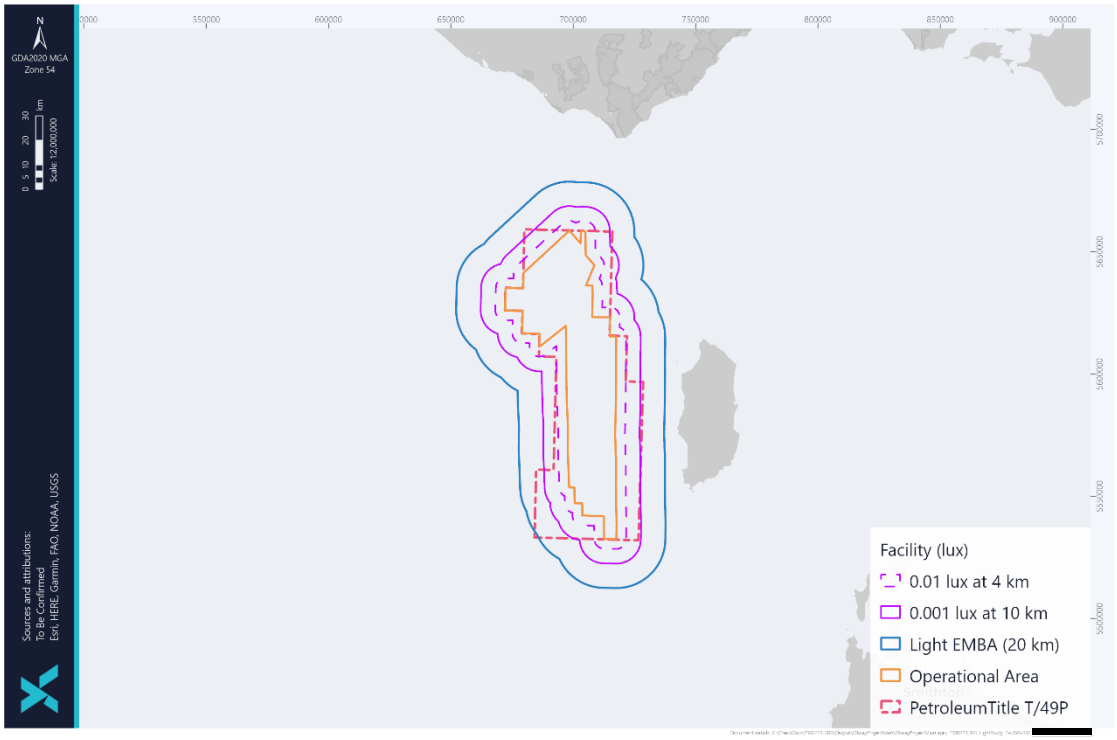


Figure 4-5 Expected light intensity levels from flare and facility lighting on the MODU when not flaring

5 ABBREVIATIONS

ACRONYM	DESCRIPTION
cd	candela (unit of measurement for luminous intensity)
CIE	Commission International de l'Eclairage
FEED	Front end engineering design
FID	Final investment decision
FPSO	Floating production storage and offtake facility
FSO	Floating storage and offloading
K	kelvin (unit of measurement for temperature)
CONOCOPHILLIPS AUSTRALIA	CONOCOPHILLIPS AUSTRALIA Energy Pty Ltd
km	kilometre (unit of measurement for distance)
LNG	Liquefied natural gas
lm	lumen (unit of measurement for luminous flux)
m	metre (unit of measurement for distance)
m^2	metres squared (unit of measurement for area)
MMscfd	Million standard cubic feet per day (unit of measurement for gas)
MODU	Mobile offshore drilling unit
nm	nanometre (unit of measurement for distance)
sr	steradian (or square radian; unit of a solid angle)
W	watt (unit of measurement for radiant power)

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APPENDIX G NOISE MODELLING REPORTS

Otway Exploration Drilling Program

Acoustic Modelling for Assessing Marine Fauna Sound Exposures

JASCO Applied Sciences (Australia) Pty Ltd

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Executive Summary

JASCO Applied Sciences (JASCO) performed a modelling study of underwater sound levels associated with the ConocoPhillips Otway Exploration Drilling Program to inform the Environmental Impact Identification (ENVID) process. This study considered specific components of the program across two petroleum titles (T/49P and VIC/P79), at representative nominal well locations within two operational areas.

This modelling study considers a range of activities including:

- Continuous noise emissions from:
  - An anchored Mobile Offshore Drilling Unit (MODU) conducting drilling operations.
  - Associated Anchor Handler Tug Supply (AHTS) vessel resupplying the MODU under dynamic positioning (DP).
  - An AHTS on standby near the MODU (patrolling a prescribed area at slow speed).
  - AHTS involved in pre-lay and mooring activities for the MODU.
- Impulsive noise emissions from a boomer-type Sub Bottom Profiler (SBP) during seabed surveys and Vertical Seismic Profiling (VSP) during well evaluation operations. As the boomer source had not been decided at the time of the modelling study, a commonly used representative system was used for the modelling, with levels derived from a previous JASCO field measurement campaign. For the VSP seismic source, JASCO's specialised airgun array source model was used to predict the acoustic signature.

The study assessed distances from operations where underwater sound levels reached thresholds corresponding to various levels of potential impact to marine fauna. The animals considered here included marine mammals, turtles, fish (including fish eggs and larvae) and benthic invertebrates. Due to the variety of species considered, there are several thresholds for evaluating effects, including: mortality, injury, temporary reduction in hearing sensitivity, and behavioural disturbance. Of particular note, whilst the newly published Southall et al. (2021) provides recommendations and discusses the nuances of assessing behavioural response, the authors do not recommend new numerical thresholds for onset of behavioural responses for marine mammals.

The modelling methodology considered scenario-specific source levels and range-dependent environmental properties. Estimated underwater acoustic levels for non-impulsive (continuous) noise sources presented as sound pressure levels (SPL, L_p), and as accumulated sound exposure levels (SEL, L_E). Estimated underwater acoustic levels for impulsive noise sources (VSP) are presented as sound pressure levels, zero-to-peak pressure levels (PK, L_{pk}), peak-to-peak pressure levels (PK-PK; $L_{pk\text{-}pk}$), and either single-impulse (i.e., per-pulse) or accumulated sound exposure levels as appropriate for different noise effect criteria. In this report, the duration of the SEL accumulation is defined as integrated over a 24 h period.

The SEL_{24h} is a cumulative metric that reflects the dosimetric impact of noise levels within 24 h based on the assumption that an animal is consistently exposed to such noise levels at a fixed position. The corresponding SEL_{24h} radii represent an unlikely worst-case scenario. More realistically, marine mammals (as well as fish and turtles) would not stay in the same location for 24 h. Therefore, a reported radius for SEL_{24h} criteria does not mean that marine fauna travelling within this radius of a source will be injured, but rather that an animal could be exposed to the sound level associated with impairment if it remained in that location for 24 h.

Vessel and Drilling Noise

For the results below, the distances to isopleths/thresholds were reported from the most dominant single source. Maps are provided in the report to assist with contextualising tabulated distances. The key results of this acoustic modelling study are summarised below. There are no thresholds for invertebrates for effects from non-impulsive noise, therefore no results are reported.

A key finding from the study is that despite the 17 m (18%) depth difference between Essington and Garfield, Garfield's placement approximately 10 km closer to the shelf edge and similar geology between the two sites, the variations observed in the ranges to thresholds for the vessel related activities at both sites are minimal. While the proximity to the shelf edge does not greatly affect the results of inshore sites, Garfield West, located effectively on the shelf edge, clearly demonstrates the extended ranges to threshold expected in the offshore direction. Additionally, Garfield West has a highly reflective seabed geology, contributing to the favourable propagation conditions observed. The reason this extended propagation is not observed in the near shelf sites is due to the combination of sources and the source depths used in the modelling, the almost linear sound speed profile in the top 200 m and the attenuating influence of the calcarenite seafloor.

Marine mammals:

The maximum distances to the (NOAA) (2019) marine mammal behavioural response criterion of 120 dB re 1 µPa (SPL) are presented in Table 1. The results for the criteria from Southall et al. (2019) for marine mammal PTS and TTS for MODU and vessel operations were assessed for all scenarios assessed for each nominal location. The maximum distances and total ensonified areas are presented in Table 2.

Table 1. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) to the marine mammal behavioural response criterion of 120 dB re 1 µPa (SPL) from the most appropriate location for considered sources per scenario.

Scenario	Description	*British Admiral*		*Flanagan*		*British Admiral West*		Merope (66 m depth)		Julpha (45 m depth)		Essington (93 m depth)		Garfield (110 m depth)		Garfield West (168 m depth)	
		R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)	$R_{95\%}$ (km)
1	**Prelay**: 1 × anchor handler working on site within 2 km of location	0.50	0.47	0.44	0.42	n/a	n/a	0.44	0.39	0.42	0.40	0.47	0.44	0.44	0.41	n/a	n/a
2	**Mooring**: Moored semi-sub idle (no noise); 1 × anchor handler on bridle on DP; 2 × anchor handlers working on site within 2 km of location	11.3	10.3	11.8	10.6	n/a	n/a	12.0	10.6	12.2	10.9	11.6	10.5	11.6	10.1	n/a	n/a
3	**Drilling**: Anchored MODU drilling	1.41	1.30	1.34	1.24	1.48	1.25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.39	1.16
4	**Drilling and resupply**: Anchored MODU drilling; 1 × anchor handler at rig doing resupply (8 h)	11.4	10.4	12.0	10.9	11.8	10.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22.8	18.9
5	**Drilling with standby vessel**: Anchored MODU drilling; 1 × anchor handler on standby within 2 km	2.32	2.09	2.03	10.7	n/a	n/a	2.25	2.03	2.39	2.12	2.44	2.11	2.32	2.00	n/a	n/a
6	**Drilling, resupply, with standby vessel**: Anchored MODU drilling; 1 × anchor handler on standby within 2 km; 1 × anchor handler at rig doing resupply (8 h)	11.4	10.4	12.0	10.9	n/a	n/a	12.6	10.8	12.3	11.1	12.2	10.9	12.2	10.2	n/a	n/a

DP: Dynamic Positioning, MODU: Mobile Offshore Drilling Unit; n/a indicates scenario was not assessed.

Table 2. Summary: Maximum (R_{max}) horizontal distances (in km) and ensonified area (km^2) for the frequency-weighted LF-cetacean SEL_{24h} temporary threshold shift (TTS) from the most appropriate location for the considered scenario.

Scenario	Description	*British Admiral*		*Flanagan*		*British Admiral West*		Merope (66 m depth)		Julpha (45 m depth)		Essington (93 m depth)		Garfield (110 m depth)		Garfield West (168 m depth)	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
1	**Prelay**: 1 × anchor handler working on site within 2 km of location	0.07	0.69	0.07	0.69	n/a	n/a	2.53	0.69	2.70	0.69	2.73	0.69	2.49	0.69	n/a	n/a
2	**Mooring**: Moored semi-sub idle (no noise); 1 × anchor handler on bridle on DP; 2 × anchor handlers working on site within 2 km of location	2.88	21.1	3.11	22.2	n/a	n/a	3.42	28.8	3.59	29.8	3.11	22.2	2.82	18.9	n/a	n/a
3	**Drilling**: Anchored MODU drilling	0.40	0.41	0.38	0.45	0.42	0.40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.23	0.16
4	**Drilling and resupply**: Anchored MODU drilling; 1 × anchor handler at rig doing resupply (8 h)	1.76	7.25	1.68	7.38	1.66	7.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.30	11.5
5	**Drilling with standby vessel**: Anchored MODU drilling; 1 × anchor handler on standby within 2 km	0.41	1.08	0.40	1.12	n/a	n/a	0.41	1.09	0.46	1.23	0.41	1.13	0.39	1.03	n/a	n/a
6	**Drilling, resupply, with standby vessel**: Anchored MODU drilling; 1 × anchor handler on standby within 2 km; 1 × anchor handler at rig doing resupply (8 h)	1.79	7.93	1.68	8.02	n/a	n/a	1.93	7.98	1.64	11.1	1.62	7.81	1.62	6.98	n/a	n/a

DP: Dynamic Positioning, MODU: Mobile Offshore Drilling Unit; n/a indicates scenario was not assessed.

Sea turtles:

The maximum distance to the SEL_{24h} metrics of 220 dB re 1 µPa^{2}s for PTS and 200 dB re 1 µPa^{2}s for TTS was 0.06 km for PTS onset and 0.14 km for TTS onset for the non-impulsive noise sources (Finneran et al. 2017). As is the case with marine mammals, a reported radius for SEL_{24h} criteria does not mean that sea turtles travelling within this radius of the source will be injured, but rather that an animal could be exposed to the sound level associated with either PTS or TTS if it remained in that location for 24 hours.

Fish:

Sound produced by the MODU and/or vessel operations are predicted to reach the sound levels associated with physiological effects, recoverable injury, and TTS for some fish species in close proximity to the sound sources (within 20 m). For the thresholds to be exceeded, fish would have to remain at those distances for either 12 or 48 h.

Vertical Seismic Profiling

Marine mammals:

The results for marine mammal injury applied the criteria from Southall et al. (2019), which requires two metrics (PK and SEL_{24h}) to be considered in when assessing marine mammal Permanent Threshold Shift (PTS) and Temporary Threshold Shift (TTS), with the longest distance associated with either metric being required to be applied. Table 3 summarises the maximum distances for PTS, along with the relevant metric associated with the maximum PTS distance. The maximum distance where the NOAA (2019) marine mammal behavioural response criterion of 160 dB re 1 µPa (SPL) is also presented in Table 3. The maximum distance where the NOAA (2019) marine mammal behavioural response criterion of 160 dB re 1 µPa (SPL) is also presented in Table 3. The maximum range to the low-frequency cetacean weighted threshold of 140 dB re 1 µPa (SPL) from Wood et al. (2012), applied to migrating southern right whales, was 6.48 km.

Table 3. Summary of maximum (R_{max}) horizontal distances (in km) from any modelled site to behavioural response thresholds and temporary threshold shift (TTS) and permanent threshold shift (PTS) for marine mammals. Maximum extents are in the broadside direction.

Hearing group	Modelled distance to effect threshold (R_{max})		
	Behavioural response [a]	Impairment: TTS [b]	Impairment: PTS [b]
Low-frequency (LF) cetaceans	1.50	2.39[c]	0.33[c]
High-frequency (HF) cetaceans		–	–
Very high-frequency (VHF) cetaceans		0.25[d]	0.11[d]
Otariid Pinnipeds		–	–

Noise exposure criteria: [a] NOAA (2019) and [b] Southall et al. (2019)
[c] Longest distance to threshold from all SEL_{24h} results
[d] Longest distance to threshold from all PK results
A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

Sea turtles

- The PK sea turtle injury criteria of 232 dB re 1 µPa for PTS and 226 dB re 1 µPa for TTS from Finneran et al. (2017) was not exceeded at a distance longer than 20 m from the acoustic centre of the source.
- The maximum distance to the SEL_{24h} metrics of 204 dB re 1 µPa^{2}s for PTS and 189 dB re 1 µPa^{2}s for TTS was 0.03 km for PTS onset and 0.27 km for TTS onset for the 750 in^3 seismic source

(Finneran et al. 2017). As is the case with marine mammals, a reported radius for SEL_{24h} criteria does not mean that sea turtles travelling within this radius of the source will be injured, but rather that an animal could be exposed to the sound level associated with either PTS or TTS if it remained in that location for 24 hours.

- Table 4 summarises the distances to where the criterion for behavioural response of turtles to 166 dB re 1 µPa (SPL) and the 175 dB re 1 µPa (SPL) threshold for behavioural disturbance (McCauley et al. 2000a), and the distances to where temporary threshold shift (TTS) and permanent threshold shift (PTS) (Finneran et al. 2017) could be exceeded.

Table 4. Summary of horizontal distances (in km) to turtle behavioural response criteria, temporary threshold shift (TTS), and permanent threshold shift (PTS).

Hearing group – Sea Turtles				
Location	**Behavioural response[1]**	**Behavioural disturbance[1]**	**Impairment: TTS[2]**	**Impairment: PTS[2]**
T/49P - British Admiral	0.92 (SPL)	0.36 (SPL)	0.27 (SEL_{24h})	0.03 (SEL_{24h})
T/49P - Flanagan	0.92 (SPL)	0.37 (SPL)	0.27 (SEL_{24h})	0.03 (SEL_{24h})
VIC/P79 (northern extent) Julpha	0.83 (SPL)	0.37 (SPL)	0.23 (SEL_{24h})	0.03 (SEL_{24h})
VIC/P79 (southern extent) Garfield	0.89 (SPL)	0.35 (SPL)	0.26 (SEL_{24h})	0.03 (SEL_{24h})

Noise exposure criteria: McCauley et al. (2000a), and [2] Finneran et al. (2017)

Fish, fish eggs, and fish larvae:

This modelling study assessed the ranges for quantitative criteria based on Popper et al. (2014) and considered both PK and SEL_{24h} metrics associated with mortality and potential mortal injury as well as impairment in the following groups:

- Fish without a swim bladder (also appropriate for sharks in the absence of other information),
- Fish with a swim bladder that do not use it for hearing,
- Fish that use their swim bladders for hearing, and
- Fish eggs and fish larvae.

Table 5 summarises the maximum distances to effect criteria for fish, fish eggs, and fish larvae along with the relevant metric for both modelled locations.

Table 5. Summary of maximum fish, fish eggs, and larvae injury and temporary threshold shift (TTS) onset distances for any modelled site, for single impulse and 24 h sound exposure level (SEL_{24h}) modelled scenarios.

Relevant hearing group	**Effect criteria**	**Water column**	
		Metric associated with longest distance to criteria	**R_{max} (km)**
Fish: No swim bladder	Recoverable injury	N/A	–
	TTS	SEL_{24h}	0.45
Fish: Swim bladder not involved in hearing and Swim bladder involved in hearing	Recoverable injury	SEL_{24h}	0.05
	TTS	SEL_{24h}	0.45
Fish eggs, and larvae	Injury	PK	0.05

Benthic invertebrates:

To assist with assessing the potential effects on crustaceans, the following results were determined:

- The sound level of 202 dB re 1 µPa PK-PK from Payne et al. (2008), which is representative of no effects, was considered for seafloor sound levels; the sound level was reached at a maximum distance of 169.6 m from the acoustic centre of the VSP array, at Garfield in the southern extent of VIC/P79).
- The sound levels of 209–212dB re 1 µPa PK-PK from Day et al. (2016b) was reached at 74.2–39.0 m and 213 dB re 1 µPa from Day et al. (2016a) was reached at 27.5 m from the acoustic centre of the VSP array, only at Julpha in the northern extent of VIC/P79, and was not reached at any distance from the source at any other site.

Boomer SBP

As the boomer is also considered an impulsive source, the same metrics and thresholds as applied to the VSP analysis are applied to the SBP.

Marine mammals:

Table 6 summarises the maximum distances for PTS, along with the relevant metric associated with the maximum PTS distance for the SPB results. The maximum distance where the NOAA (2019) marine mammal behavioural response criterion of 160 dB re 1 µPa (SPL) is also presented in Table 6. The maximum range to the low-frequency cetacean weighted threshold of 140 dB re 1 µPa (SPL) from Wood et al. (2012), applied to migrating southern right whales, was 0.13 km.

Table 6. Summary of maximum (R_{max}) horizontal distances (in km) from any modelled site to behavioural response thresholds and temporary threshold shift (TTS) and permanent threshold shift (PTS) for marine mammals. Maximum extents are in the broadside direction.

Hearing group	Modelled distance to effect threshold (R_{max})		
	Behavioural response [a]	Impairment: TTS [b]	Impairment: PTS [b]
Low-frequency (LF) cetaceans	–	–	–
High-frequency (HF) cetaceans		–	–
Very high-frequency (VHF) cetaceans		0.02	–
Otariid pinnipeds in water		–	–

Noise exposure criteria: [a] NOAA (2019) and [b] Southall et al. (2019)
[c] Longest distance to threshold from SEL_{24h} results
[d] Longest distance to threshold from PK results
A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

Sea turtles:

No thresholds for effect on sea turtles were reached by the boomer SBP.

Fish, fish eggs, and fish larvae:

No fish, fish eggs, or fish larvae thresholds were reached within the modelled resolution.

Benthic invertebrates:

The PK and PK-PK sound levels produced by the SBP did not exceed any of the thresholds for effects on benthic invertebrates within the modelled resolution.

1. Introduction

JASCO Applied Sciences (Australia) performed a modelling study of underwater acoustic noise emissions associated with the ConocoPhillips Otway Exploration Drilling Program. This study specifically assessed distances from the considered operations to where underwater sound levels reached thresholds corresponding to various levels of impact to marine fauna. The key fauna considered in this study included marine mammals, sea turtles, fish (including fish eggs and larvae), and benthic invertebrates. Due to the variety of species considered, there are several different thresholds for evaluating effects, including: mortality, injury, temporary reduction in hearing sensitivity, and behavioural disturbance.

The modelling methodology considered source directivity and range-dependent environmental properties. Estimated underwater acoustic levels are presented as sound pressure levels (SPL, L_p), zero-to-peak pressure levels (PK, L_{pk}), peak-to-peak pressure levels (PK-PK, $L_{pk\text{-}pk}$), and either single-impulse (i.e., per-pulse) or accumulated sound exposure levels (SEL, L_E) as appropriate for different noise effect criteria for either non-impulsive (vessels and drilling) or impulsive (VSP) noise sources.

1.1. Acoustic Modelling Scenario Details

This study considered the following activities associated with the drilling campaign within the *British Admiral* and *Flanagan* drill targets:

- Pre-lay operations by an Anchor Handler Tug Supply (AHTS) vessel working on site.
- Mooring operations where an anchored Mobile Offshore Drilling Unit (MODU) is idle, one AHTS is keeping position on the bridle using dynamic positioning (DP), and two AHTS are working on site within 2 km of the MODU.
- Drilling operations from a MODU, only assessed for T/49P and discontinued due to unlikeliness of scenario during operations.
- Drilling operation from a MODU with an AHTS conducting resupply operations, using DP, only assessed for T/49P and discontinued due unlikeliness of scenario during operations.
- Drilling operation from a MODU with a AHTS on standby, transiting at low speed within a prescribed area, 2 km from the MODU.
- Drilling operation from a MODU with an AHTS conducting resupply operations, using DP, and a AHTS transiting at low speed within the standby area, 2 km from the MODU.
- Vertical seismic profiling (VSP) during drilling operations at nominal wells within T/49P and VIC/P79.
- Boomer type Sub-Bottom Profiling (SBP) surrounding nominal wells in VIC/P79.

Details of the modelled sites are displayed graphically for nominal wells in:

- T/49P – shown in Figure 1 and listed in Table 7, with focused maps for the *British Admiral* and *Flanagan* nominal drill locations presented in Figures 2 and 3.
- VIC/P79 northern extent – shown in Figure 4 and listed in Table 8, with focused maps for the *Merope* and *Julpha* nominal drill locations presented in Figure 5 and Figure 6, and sub-bottom profiling shown around *Julpha* in Figure 7.
- VIC/P79 southern extent – shown in Figure 8 and listed in Table 9, with focused maps for the *Essington* and *Garfield* nominal drill locations presented in Figure 9 and Figure 10, the deeper Garfield West shown in Figure 11, and sub-bottom profiling shown around *Garfield* in Figure 12.

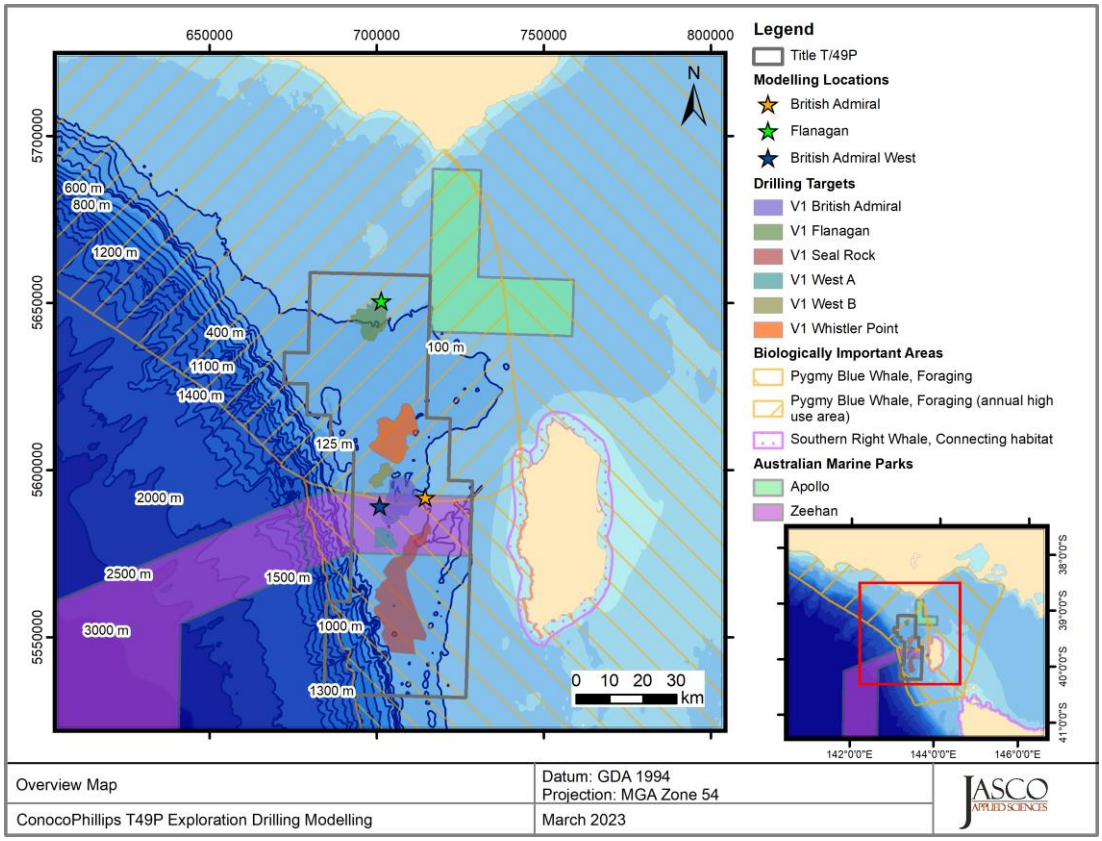


Figure 1. T/49P overview map of modelled extent and modelled sites. Table **Error! Reference source not found.** lists receiver locations from north to south.

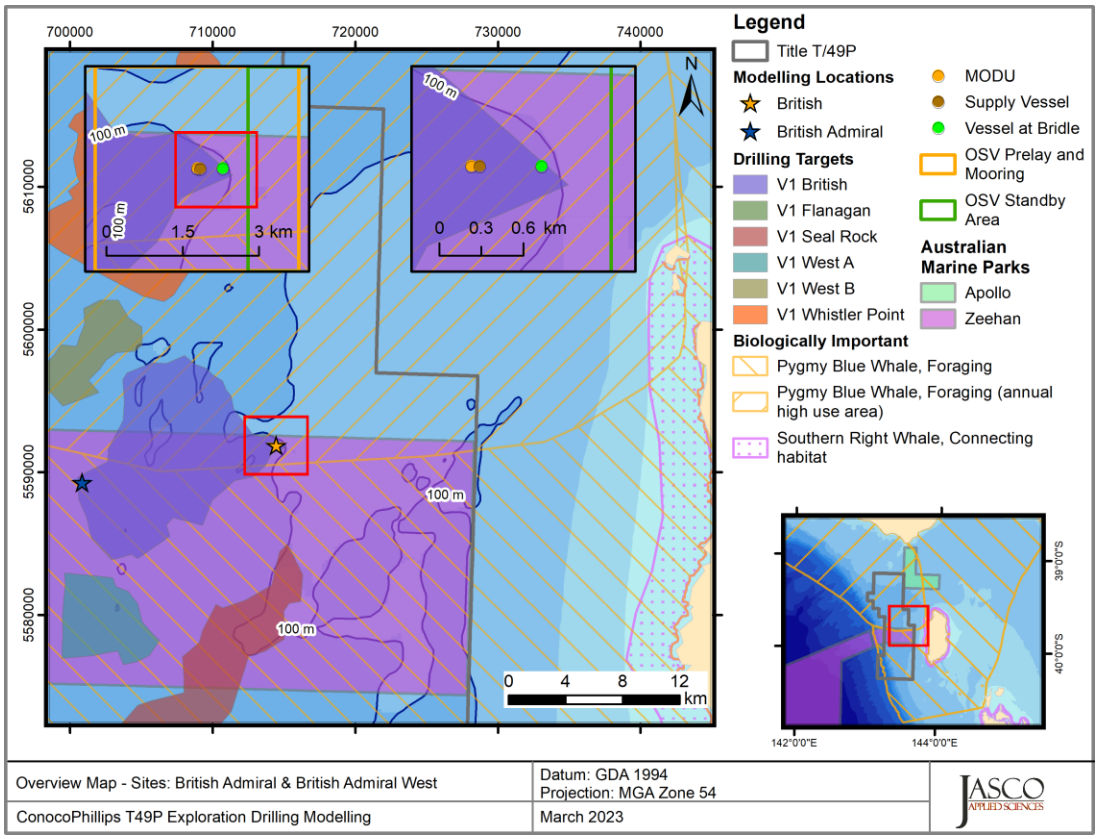


Figure 2. T/49P *British Admiral* nominal drill target focused map showing modelled features. Table **Error! Reference source not found.** lists receiver locations.

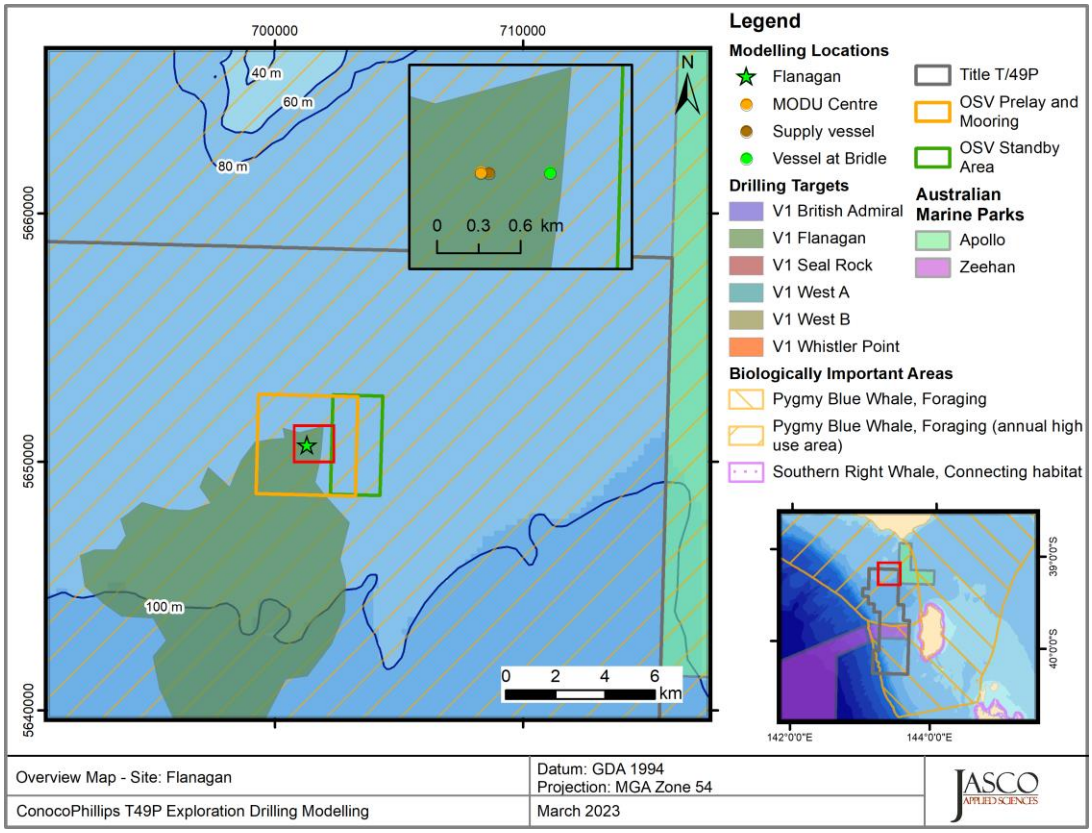


Figure 3. T/49P *Flanagan* nominal drill target focused map showing modelled features.

Table 7. T/49P modelled site locations and source information.

Location	Site	Source	Latitude	Longitude	MGA Zone 54 (GDA94)		Water depth (m)
					X (m)	Y (m)	
British Admiral	MODU	*Ocean Onyx* (MODU) and VSP array	39° 47' 46.0465" S	143° 30' 16.9905" E	714449	5591869	102
	Supply vessel	Generic AHTS at DP	39° 47' 46.0482" S	143° 30' 19.4048" E	714507	5591868	
	Vessel at Bridle	Generic AHTS at DP	39° 47' 45.6045" S	143° 30' 37.9921" E	714949	5591869	
	2 km east of MODU	Generic AHTS at slow transit	9° 47' 44.2356" S	143° 31' 41.0052" E	716449	5591869	
	2 km west of MODU	Generic AHTS at slow transit	39° 47' 47.8648" S	143° 28' 52.9676" E	712449	5591869	
Flanagan	MODU	*Ocean Onyx* (MODU) and VSP array	39° 16' 11.7290" S	143° 20' 00.1274" E	701292	5650674	92
	Supply vessel	Generic AHTS at DP	39° 16' 11.7308" S	143° 20' 02.5420" E	701350	5650672	
	Vessel at Bridle	Generic AHTS at DP	39° 16' 11.2837" S	143° 20' 20.9453" E	701792	5650674	
	2 km east of MODU	Generic AHTS at slow transit	39° 16' 10.0706" S	143° 21' 23.4942" E	703292	5650674	
	2 km west of MODU	Generic AHTS at slow transit	39° 16' 13.3927" S	143° 18' 36.7290" E	699292	5650674	
British Admiral West	MODU	*Ocean Onyx* (MODU) and VSP array	39° 49' 21.9528" S	39° 49' 21.9528" S	700837	5589279	103
	Supply vessel	Generic AHTS at DP	39° 49' 21.8433" S	143° 20' 50.3982" E	700895	5589281	

DP: Dynamic Positioning, MODU: Mobile Offshore Drilling Unit, VSP: vertical seismic profiling, AHT: Anchor Handling Tug

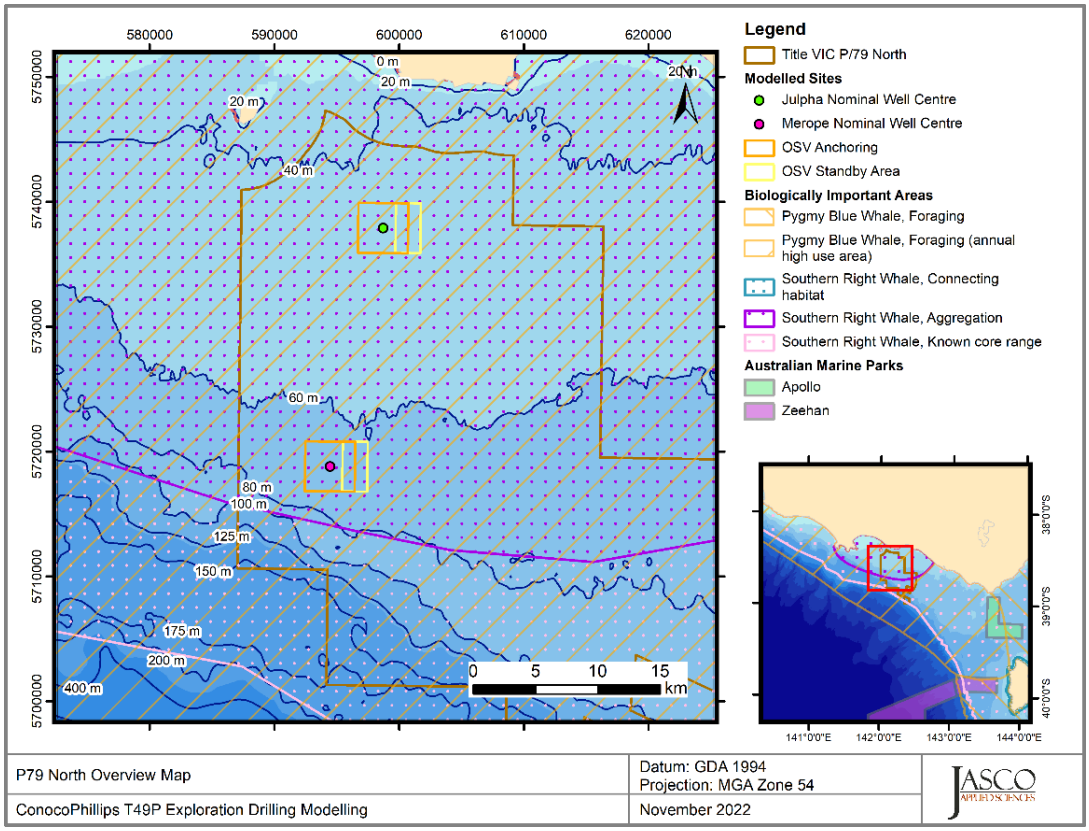


Figure 4. VIC/P79 – Northern extent overview map of the modelled extent and modelled sites. Receiver locations are listed in Table 8.

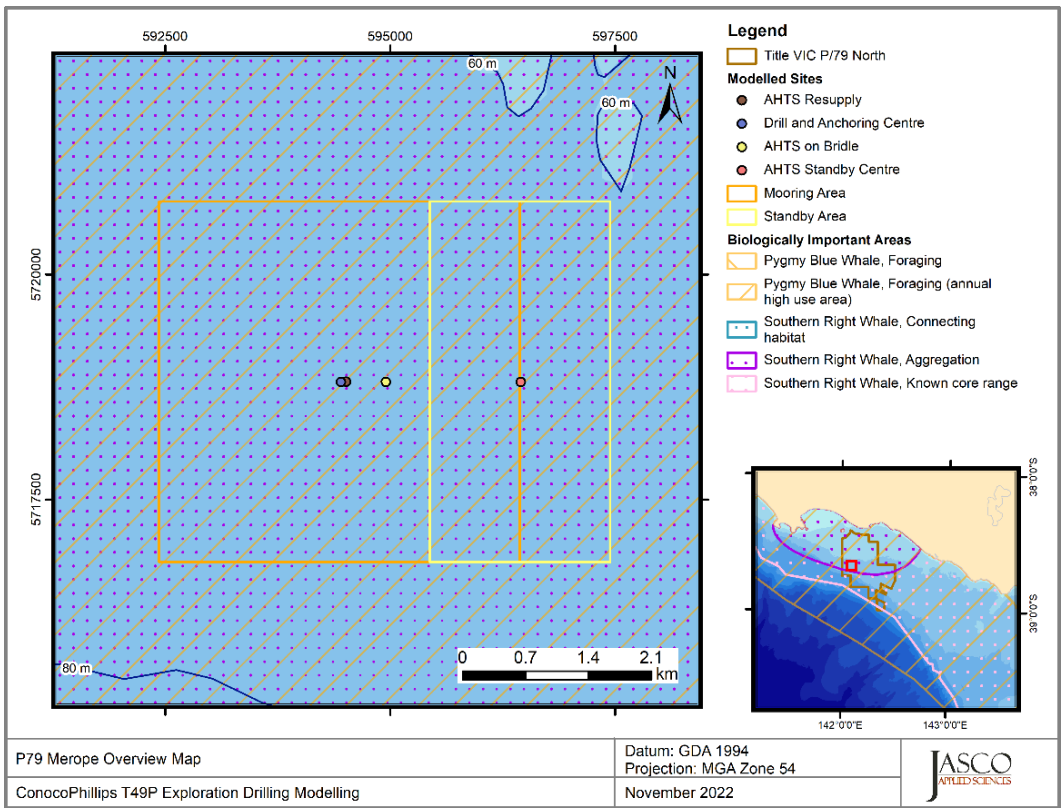


Figure 5. VIC/P79 – Northern extent Merope nominal well centre focused map showing drilling and vessel modelled features. Receiver locations are listed in Table 8

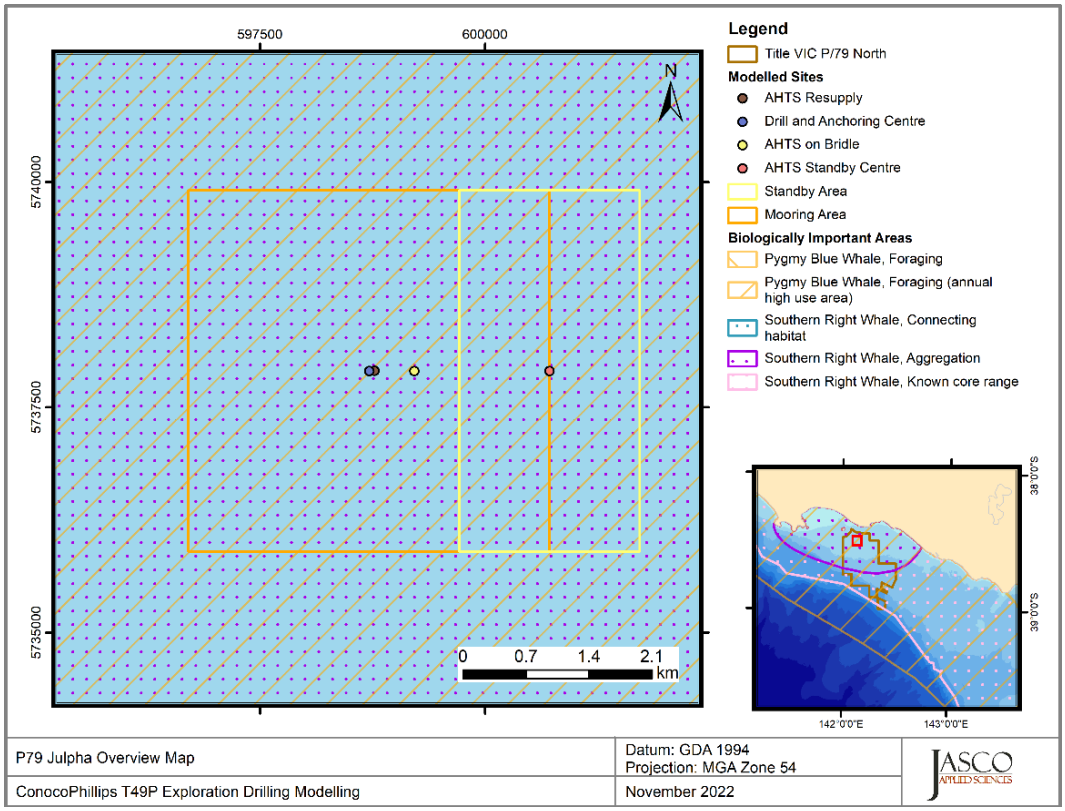


Figure 6. VIC/P79 – Northern extent Julpha nominal well centre focused map showing drilling and vessel modelled features.

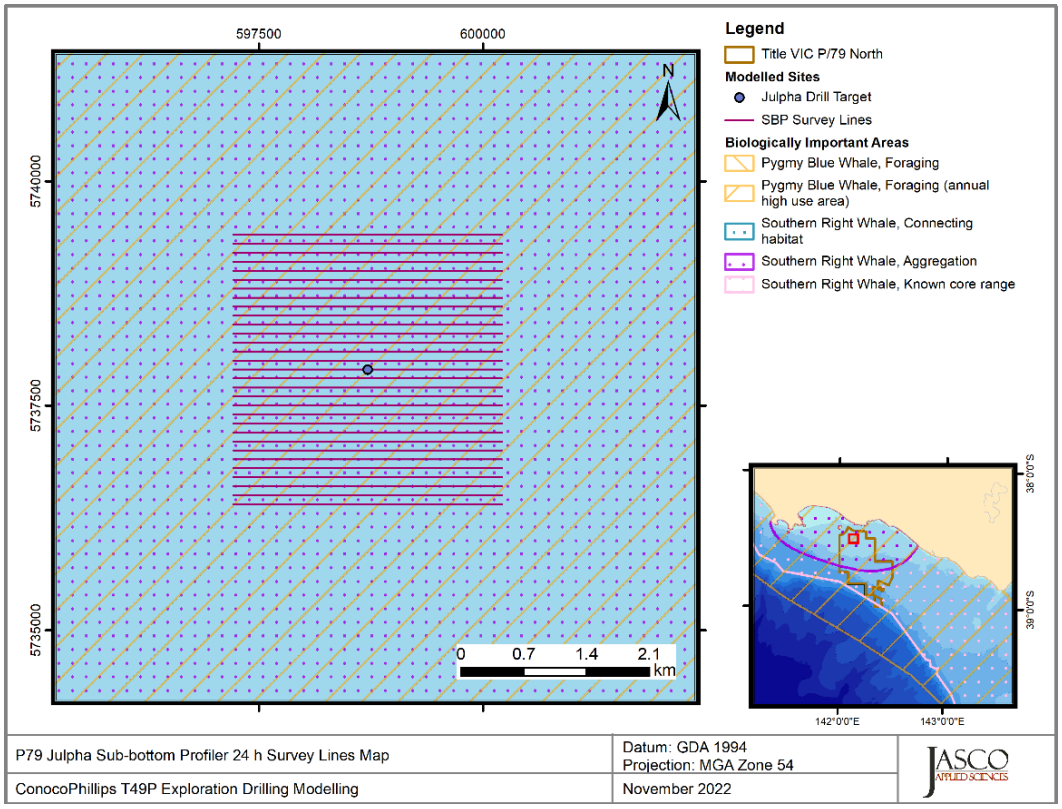


Figure 7. Sub-Bottom Profiler 24 h scenario survey lines at the Julpha nominal well centre.

Table 8. VIC/P79 Northern extent modelled locations and source information.

Location	Site	Source(s)	Latitude	Longitude	MGA Zone 54 (GDA94)		Water depth (m)
					X (m)	Y (m)	
Merope	MODU	*Ocean Onyx* (MODU)	38° 40' 27.4260" S	142° 05' 08.8764" E	594452	5718808	66
	Vessel at Bridle	Generic AHTS on Bridle DP	38° 40' 27.2351" S	142° 05' 29.5640" E	594952	5718808	64
	Supply vessel	Generic AHTS under DP	38° 40' 27.3406" S	142° 05' 11.2740" E	594510	5718810	65
	2 km east of MODU	Generic AHTS in transit	38° 40' 26.6512" S	142° 6' 31.6304" E	596452	5718808	65
Julpha	MODU	*Ocean Onyx* (MODU) VSP Array	38° 30' 06.3724" S	142° 07' 55.4875" E	598714	5737903	45
	Vessel at Bridle	Generic AHTS on Bridle DP	38° 30' 06.1724" S	142° 08' 16.1266" E	599214	5737903	46
	Supply vessel	Generic AHTS under DP	38° 30' 06.2844" S	142° 07' 57.8806" E	598772	5737905	46
	2 km east of MODU	Generic AHTS in transit	38° 30' 5.5663" S	142° 9' 18.0437" E	600714	5737903	49

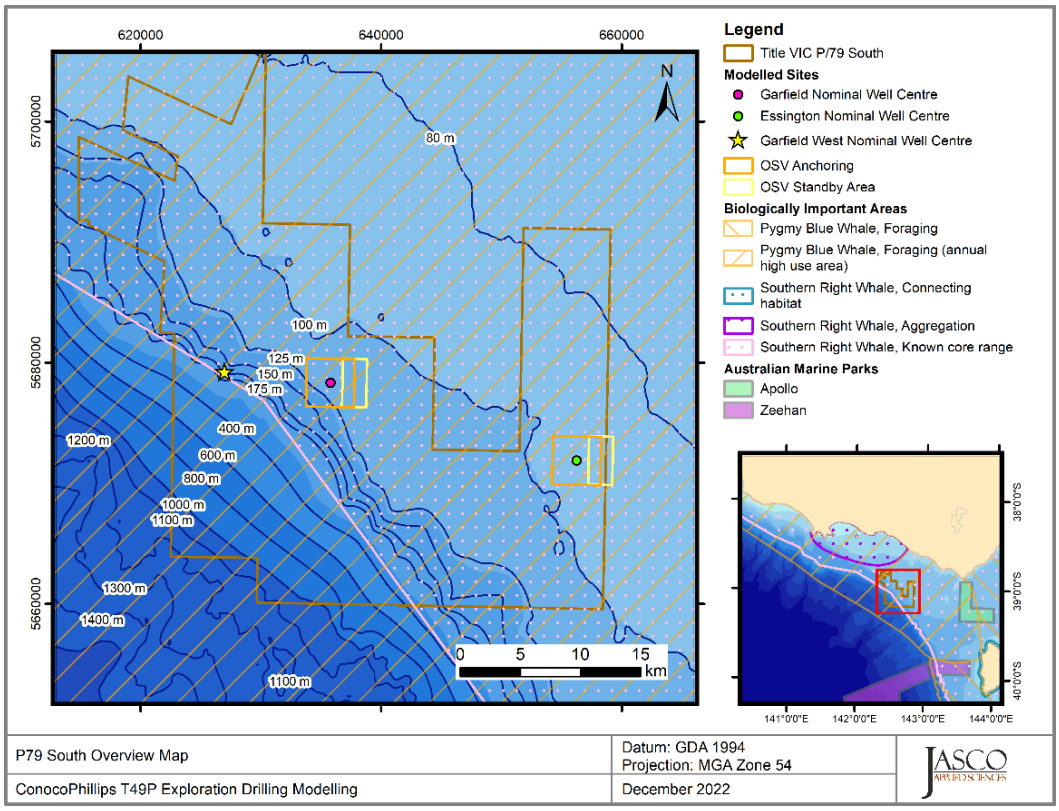


Figure 8. VIC/P79 – Southern extent overview map of the modelled extent and modelled sites.

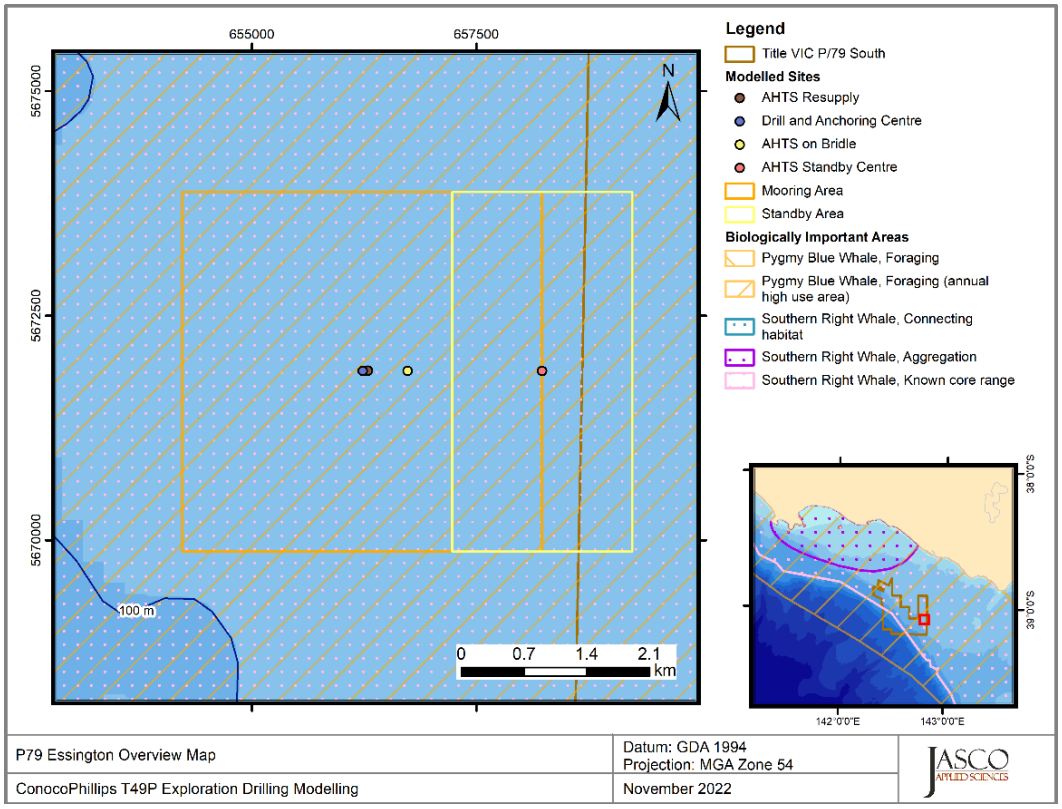


Figure 9. VIC/P79 – Southern extent Essington nominal drill target focused map showing modelled features.

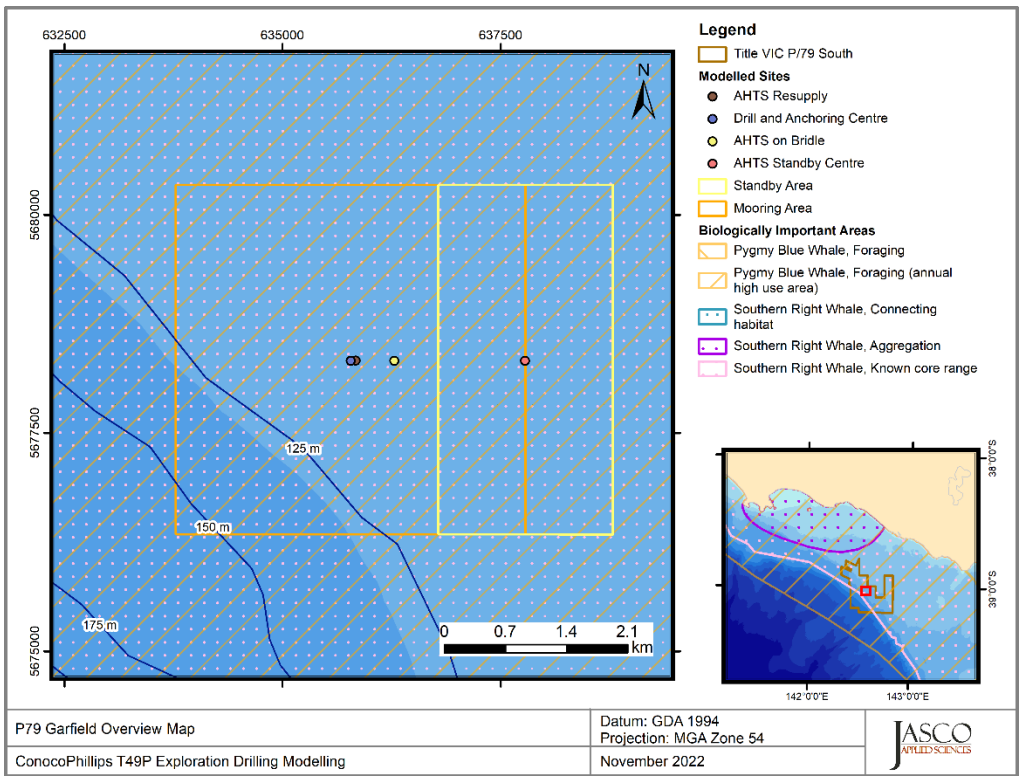


Figure 10. VIC/P79 – Southern extent Garfield nominal drill target focused map showing modelled features.

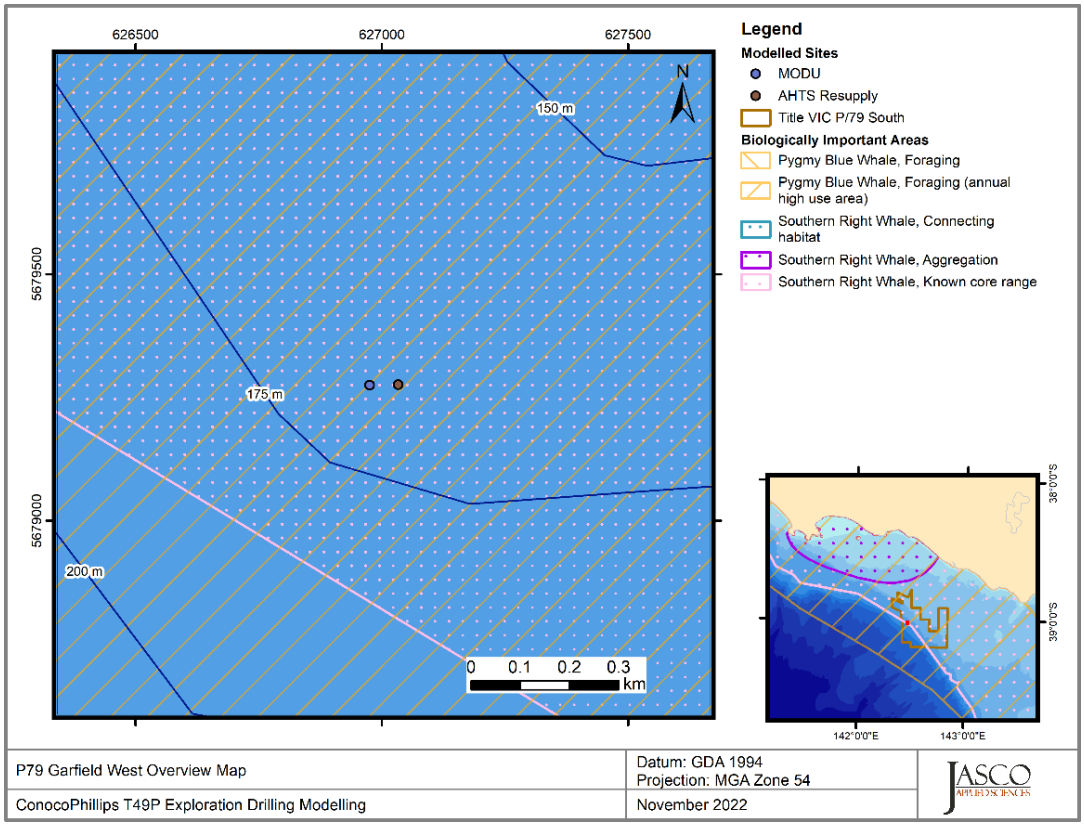


Figure 11. VIC/P79 – Southern extent Garfield West nominal drill target focused map showing modelled features.

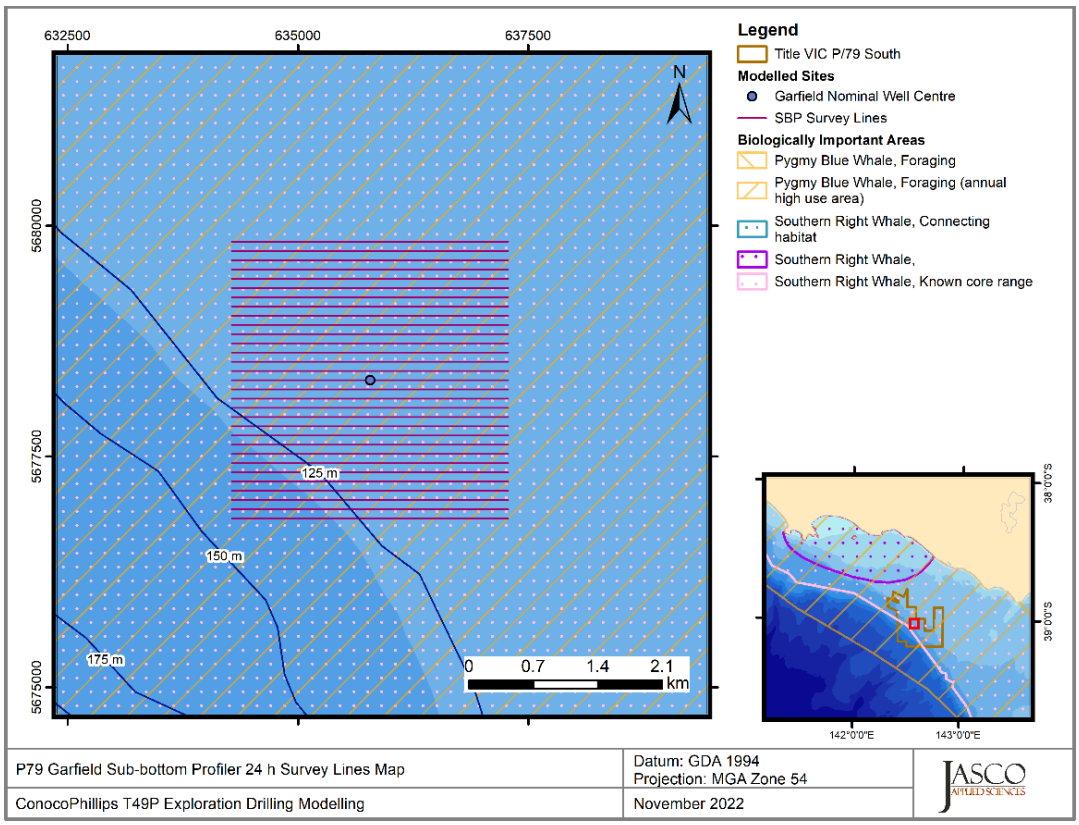


Figure 12. Sub-Bottom Profiler 24 h scenario survey lines at the Garfield nominal well centre.

Table 9. VIC/P79 Southern extent modelled locations and source information.

Location	Site	Source(s)	Latitude	Longitude	MGA Zone 54 (GDA94)		Water depth (m)
					X (m)	Y (m)	
Essington	MODU	*Ocean Onyx* (MODU)	39° 05' 17.4075" S	142° 48' 23.1485" E	656233	5671886	93
	Vessel at Bridle	Generic AHTS on Bridle DP	39° 05' 17.0845" S	142° 48' 43.9511" E	656733	5671886	92
	Supply vessel	Generic AHTS under DP	39° 05' 17.3052" S	142° 48' 25.5600" E	656290.9	5671888	93
	2 km east of MODU	Generic AHTS in transit	39° 5' 16.1097" S	142° 49' 46.3585" E	658233	5671886	96
Garfield	MODU	*Ocean Onyx* (MODU) VSP Array	39° 02' 00.8251" S	142° 34' 07.5289" E	635781	5678328	110
	Vessel at Bridle	Generic AHTS on Bridle DP	39° 02' 00.5488" S	142° 34' 28.3241" E	636281	5678328	108
	Supply vessel	Generic AHTS under DP	39° 02' 00.7317" S	142° 34' 09.9450" E	635839	5678330	110
	2 km east of MODU	Generic AHTS in transit	39° 1' 59.7021" S	142° 35' 30.6911" E	637781	5678328	110
Garfield West	MODU	*Ocean Onyx* (MODU)	39° 01' 34.8045" S	142° 28' 03.1585" E	626975	5679275	168
	Supply vessel	Generic AHTS at DP	39° 01' 34.8045" S	142° 28' 03.1585" E	627033	5679277	167

The modelled scenarios for non-impulsive sources are detailed in Table 10. A total of 14 scenarios to assess non-impulsive noise emission from vessel and drilling activities were initially modelled considering six combinations of activities for the drilling and vessel activities at each drill target within T/49P. The number of combinations of activities was then rationalised to 4 for modelling at VIC/P79 nominal locations as follows:

- For T/49P: Scenarios 1 to 6 were modelled at the nominal locations British Admiral and Flanagan; only Scenarios 3 and 4 were modelled at the British Admiral West location.
- For VIC/P79 – northern extent: Scenarios 1, 2, 5 and 6 were modelled at the nominal locations Merope and Julpha.
- For VIC/P79 – southern extent: Scenarios 1, 2, 5 and 6 were modelled at the nominal locations Essington and Garfield; only Scenarios 3 and 4 were modelled at the Garfield West location to provide a comparison between on-shelf and shelf-edge locations.

Table 10. Description of vessel modelling scenarios and the associated sound source sites

Scenario	Site(s)		Source(s)	Description
	For computing SPL fields	For computing SEL fields		
1*	MODU	Random locations (24 h) within 4 × 4 km box centred on MODU	Generic AHTS	**Prelay**: 1 × anchor handler working on site within 2 km of location
2	Vessel at Bridle, 2 km east and 2 km west of MODU	Vessel at Bridle (24 h) and 2 sets of random locations (24 h), within 4 ×x 4 km box centred on MODU	3 × Generic AHTS	**Mooring**: Moored Semi-sub idle (no noise) 1 × anchor handler on the bridle on DP 2 × anchor handlers working on site within 2 km of location
3	MODU	MODU (24 h)	*Ocean Onyx*	**Drilling**: Anchored MODU drilling
4	MODU and Supply vessel	MODU (24 h) and Supply vessel (8 h)	*Ocean Onyx* Generic AHTS	**Drilling and resupply**: Anchored MODU drilling 1 × anchor handler at rig doing resupply (8 h)
5	MODU and 2 km east of MODU	MODU (24 h) and random locations (24 h), within 2 × 4 km box east of MODU	*Ocean Onyx* Generic AHTS	**Drilling with standby vessel**: Anchored MODU drilling 1 × anchor handler on standby within 2 km
6	MODU, Supply vessel, and 2 km east of MODU	MODU (24 h) and Supply vessel (8 h) and random locations (24 h), within 2 × 4 km box east of MODU	*Ocean Onyx* 2 × Generic AHTS	**Drilling, resupply, with standby vessel**: Anchored MODU drilling 1 × anchor handler on standby within 2 km 1 × anchor handler at rig doing resupply (8 h)

DP: Dynamic Positioning, MODU: Mobile Offshore Drilling Unit

The scenarios for impulsive VSP operation considered in this report varied by the maximum number of pulses per 24 h, up to a defined total of 130. The total number of pulses considered were 10, 50, 100, and 130 per 24 h at each location as described in Table 11.

Table 11. Description of vertical seismic profiling (VSP) scenarios.

Scenario	Location	Number of impulses
1	*British Admiral*	10
2		50
3		100
4		130
5	*Flanagan*	10
6		50
7		100
8		130
9	*Julpha*	10
10		50
11		100
12		130
13	Garfield	10
14		50
15		100
16		130

2. Noise Effect Criteria

To assess the potential effects of a sound-producing activity, it is necessary to first establish exposure criteria (thresholds) for which sound levels may be expected to have a negative effect on animals. Whether acoustic exposure levels might injure or disturb marine fauna is an active research topic. Since 2007, several expert groups have developed SEL-based assessment approaches for evaluating auditory injury, with key works including Southall et al. (2007), Finneran and Jenkins (2012), Popper et al. (2014), United States National Marine Fisheries Service (NMFS 2018) and Southall et al. (2019). The number of studies that investigate the level of behavioural disturbance to marine fauna by anthropogenic sound has also increased substantially.

Two sound level metrics, SPL, and SEL, are commonly used to evaluate non-impulsive noise and its effects on marine life. In this report, the duration of the SEL accumulation is defined as integrated over a 24 h time period. Appropriate subscripts indicate any applied frequency weighting applied (Appendix 0). The acoustic metrics in this report reflect the updated ANSI and ISO standards for acoustic terminology, ANSI S1.1 (S1.1-2013) and ISO 18405:2017 (2017).

The following thresholds and guidelines for this study were chosen because they represent the best available science, and sound levels presented in literature for fauna with no defined thresholds:

1. Peak pressure levels (PK; L_{pk}) and frequency-weighted accumulated sound exposure levels (SEL; $L_{E,24h}$) from Southall et al. (2019) for the onset of permanent threshold shift (PTS) and temporary threshold shift (TTS) in marine mammals for non-impulsive and impulsive sources.
    a. Weighted SPL for assessing more nuanced responses to impulsive noise for migrating Southern Right whales (SRW) from Wood et al. (2012).
2. Marine mammal behavioural threshold based on the current interim US National Oceanic and Atmospheric Administration (NOAA) (2019) criterion for marine mammals of 120 dB re 1 µPa (SPL; L_p) and 160 dB re 1 µPa (SPL; L_p) for non-impulsive and impulsive sound sources.
3. Sound exposure guidelines for fish, fish eggs, and larvae (Popper et al. 2014).
4. Peak pressure levels (PK; L_{pk}) and frequency-weighted accumulated sound exposure levels (SEL; $L_{E,24h}$) from Finneran et al. (2017) for the onset of permanent threshold shift (PTS) and temporary threshold shift (TTS) in turtles.
5. Peak-peak pressure levels (PK-PKS; $L_{pk\text{-}pk}$) at the seafloor to help assess effects of noise on crustaceans through comparing to results in Day et al. (2016a), Day et al. (2019), Day et al. (2016b), Day et al. (2017) and Payne et al. (2008).

Sections 2.1 and 2.2, along with Appendices A.3 and A.4, expand on the thresholds, guidelines, and sound levels for marine mammals, fish, fish eggs, fish larvae, and sea turtles.

2.1. Marine Mammals

The criteria applied in this study to assess possible effects of non-impulsive and impulsive noise sources on marine mammals are summarised in Tables 12 and 13. Cetaceans and otariid seals were identified as the hearing groups requiring assessment. Details on thresholds related to auditory threshold shifts or hearing loss and behavioural response are provided in Appendix A.3, with frequency weighting explained in detail in Appendix A.4. Of particular note, whilst the newly published Southall et al. (2021) provides recommendations and discusses the nuances of assessing behavioural response, the authors do not recommend new numerical thresholds for onset of behavioural responses for marine mammals.

To assist in assessing potential behavioural responses by migrating SRW, a graded probability of response for impulsive sounds using a frequency weighted SPL metric, as described in Wood et al. (2012), has been applied. Wood et al. (2012) defined behavioural response categories for sensitive species (including harbour porpoise and beaked whales) and for migrating mysticetes. The migrating

mysticete category has been applied to Southern Right Whales in this analysis, within the calving and calving buffer BIAs and also during migration, to assess behavioural response to impulsive sounds (Table 14). The Wood et al. (2012) approach has been updated to consider the frequency weighting from Southall et al. (2019) for low-frequency cetaceans as opposed to that from Southall et al. (2007).

Table 12. Criteria for effects of non-impulsive noise exposure, including vessel noise, for marine mammals: Unweighted sound pressure level (SPL) and 24 h sound exposure level (SEL_{24h}) thresholds.

Hearing group	NOAA (2019)	Southall et al. (2019)	
	Behaviour	PTS onset thresholds (received level)	TTS onset thresholds (received level)
	SPL (L_p; dB re 1 µPa)	Weighted SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	Weighted SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)
Low-Frequency (LF) cetaceans	120	199	179
High-frequency (HF) cetaceans		198	178
Very high-frequency (VHF) cetaceans		173	153
Otariid seals		219	199

L_p denotes sound pressure level period and has a reference value of 1 µPa.
L_E denotes cumulative sound exposure over a 24 h period and has a reference value of 1 µPa²·s.

Table 13. Acoustic effects of impulsive noise on marine mammals: Unweighted sound pressure level (SPL), 24 h sound exposure level (SEL_{24h}), and peak (PK) thresholds.

Hearing group	NOAA (2019)	Southall et al. (2019)			
	Behaviour	PTS onset thresholds [a] (received level)		TTS onset thresholds [a] (received level)	
	SPL (L_p; dB re 1 µPa)	Weighted SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	PK (L_{pk}; dB re 1 µPa)	Weighted SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	PK (L_{pk}; dB re 1 µPa)
Low-Frequency (LF) cetaceans	160	183	219	168	213
High-frequency (HF) cetaceans		185	230	170	224
Very high-frequency (VHF) cetaceans		155	202	140	196
Otariid seals		183	232	168	226

[a] Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.
L_p denotes sound pressure level period.
$L_{pk,flat}$ denotes peak sound pressure is flat weighted or unweighted.
L_E denotes cumulative sound exposure over a 24 h period.

Table 14. Behavioural response criteria used in this analysis for calving and migrating Southern Right Whale (SRW) probability of behavioural response frequency-weighted sound pressure level (SPL, dB re 1 µPa). Probabilities are not additive. Adapted from Wood et al. (2012).

Frequency-weighted SPL ($L_{p,LF}$; dB re 1 µPa)[a]	Probability of response (%)
120	10
140	50
160	90

[a] Low-frequency cetacean weighted, Southall et al. (2019).

2.2. Fish, Sea turtles, Fish Eggs, and Fish Larvae

In 2006, the Working Group on the Effects of Sound on Fish and Sea Turtles was formed to continue developing noise exposure criteria for fish and sea turtles, work begun by a NOAA panel two years earlier. The Working Group developed guidelines with specific thresholds for different levels of effects for several species groups (Popper et al. 2014). The guidelines define quantitative thresholds for three types of immediate effects:

- Mortality, including injury leading to death,
- Recoverable injury, including injuries unlikely to result in mortality, such as hair cell damage and minor haematoma, and
- TTS.

Masking and behavioural effects can be assessed qualitatively, by assessing relative risk rather than by specific sound level thresholds. However, as these depend upon activity-based subjective ranges, these effects are not addressed in this report and are included in Tables 17 and 15 for completeness only. Because the presence or absence of a swim bladder has a role in hearing, fish's susceptibility to injury from noise exposure depends on the species and the presence and possible role of a swim bladder in hearing. Thus, different thresholds were proposed for fish without a swim bladder (also appropriate for sharks and applied to whale sharks in the absence of other information), fish with a swim bladder not used for hearing, and fish that use their swim bladders for hearing. Sea turtles, fish eggs, and fish larvae are considered separately.

Table 15 lists the relevant effects thresholds from Popper et al. (2014) for vessel and drilling noise. Some evidence suggests that fish sensitive to acoustic pressure show a recoverable loss in hearing sensitivity, or injury when exposed to high levels of noise (Scholik and Yan 2002, Amoser and Ladich 2003, Smith et al. 2006); this is reflected in the SPL thresholds for fish with a swim bladder involved in hearing. There is a paucity of data regarding responses of turtles to acoustic exposure, and no studies of hearing loss due to exposure to loud sounds. Popper et al. (2014) suggested thresholds for onset of mortal injury (including PTS) and mortality for sea turtles and, in absence of taxon-specific information, adopted the levels for fish that do not hear well (suggesting that this likely would be conservative for sea turtles). Finneran et al. (2017) presented revised thresholds for turtle injury considering frequency weighted SEL, which have been applied in this study for vessels and drilling noise (Table 16). Their rationale is that sea turtles have best sensitivity at low frequencies and are known to have poor auditory sensitivity (Bartol and Ketten 2006, Dow Piniak et al. 2012). Accordingly, TTS and PTS thresholds for turtles are likely more similar to those of fishes than to marine mammals (Popper et al. 2014).

Table 15. Criteria for non-impulsive (vessel and drilling) noise exposure for fish, adapted from Popper et al. (2014).

Type of animal	Mortality and Potential mortal injury	Impairment			Behaviour
		Recoverable injury	TTS	Masking	
Fish: No swim bladder (particle motion detection)	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) Moderate (I) Moderate (F) Low
Fish: Swim bladder not involved in hearing (particle motion detection)	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) Moderate (I) Moderate (F) Low
Fish: Swim bladder involved in hearing (primarily pressure detection)	(N) Low (I) Low (F) Low	170 dB SPL for 48 h	158 dB SPL for 12 h	(N) High (I) High (F) High	(N) High (I) Moderate (F) Low
Sea turtles	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) High (I) Moderate (F) Low
Fish eggs and fish larvae	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) High (I) Moderate (F) Low	(N) Moderate (I) Moderate (F) Low

Sound pressure level dB re 1 µPa.
Relative risk (high, moderate, low) is given for animals at three distances from the source defined in relative terms as near (N), intermediate (I), and far (F).

Table 16. Acoustic effects of non-impulsive noise on sea turtles, weighted 24 h sound exposure level (SEL_{24h}), Finneran et al. (2017).

PTS onset thresholds [a] (received level)	TTS onset thresholds [a] (received level)
220	200

[a] L_E, cumulative sound exposure over a 24 h period, with a reference value of 1 $\mu Pa^2 \cdot s$.

Impulsive noise from airguns (i.e., from VSP) and the SBP was assessed in this study based on the relevant effects thresholds from Popper et al. (2014) listed in Table 17. In general, whether an impulsive sound adversely effects fish behaviour depends on the species, the state of the individual exposed, and other factors.

The SEL metric integrates noise intensity over some period of exposure. Because the period of integration for regulatory assessments is not well defined for sounds that do not have a clear start or end time, or for very long-lasting exposures, an exposure evaluation time must be defined. Southall et al. (2007) defines the exposure evaluation time as the greater of 24 h or the duration of the activity. Popper et al. (2014) recommend a standard period of the duration of the activity; however, the publication also includes caveats about considering the actual exposure times if fish move. Integration times in this study for VSP and SBP operations have been applied over the total number of impulses per day.

Table 17. Criteria for seismic noise exposure for fish, adapted from Popper et al. (2014).

Type of animal	Mortality and Potential mortal injury	Impairment			Behaviour
		Recoverable injury	TTS	Masking	
Fish: No swim bladder (particle motion detection)	> 219 dB SEL_{24h} or > 213 dB PK	> 216 dB SEL_{24h} or > 213 dB PK	>> 186 dB SEL_{24h}	Seismic: (N, I, F) Low	(N) High (I) Moderate (F) Low
Fish: Swim bladder not involved in hearing (particle motion detection)	210 dB SEL_{24h} or > 207 dB PK	203 dB SEL_{24h} or > 207 dB PK	>> 186 dB SEL_{24h}	Seismic: (N, I, F) Low	(N) High (I) Moderate (F) Low
Fish: Swim bladder involved in hearing (primarily pressure detection)	207 dB SEL_{24h} or > 207 dB PK	203 dB SEL_{24h} or > 207 dB PK	186 dB SEL_{24h}	Seismic: (N, I) Low (F) Moderate	(N, I) High (F) Moderate
Fish eggs and fish larvae	> 210 dB SEL_{24h} or > 207 dB PK	(N) Moderate (I) Low (F) Low	(N) Moderate (I) Low (F) Low	Seismic: (N, I, F) Low	(N) Moderate (I, F) Low

Peak sound pressure level dB re 1 µPa; SEL_{24h} dB re 1µPa^2·s.
All criteria are presented as sound pressure even for fish without swim bladders since no data for particle motion exist.
Relative risk (high, moderate, low) is given for animals at three distances from the source defined in relative terms as near (N), intermediate (I), and far (F).

McCauley et al. (2000a) observed the behavioural response of caged sea turtles—green (*Chelonia mydas*) and loggerhead (*Caretta caretta*)—to an approaching seismic airgun. For received levels above 166 dB re 1 µPa (SPL), the sea turtles increased their swimming activity, and above 175 dB re 1 µPa they began to behave erratically, which was interpreted as an agitated state. The Recovery Plan for Marine Turtles in Australia (Department of the Environment and Energy et al. 2017) acknowledges the 166 dB re 1 µPa SPL reported (McCauley et al. 2000a) as the level that may result in a behavioural response to marine turtles. The 175 dB re 1 µPa level from McCauley et al. (2000a) is recommended as a criterion for behavioural disturbance. These thresholds are shown in Table 18.

Table 18. Acoustic effects of impulsive noise on sea turtles: Unweighted sound pressure level (SPL), 24 h sound exposure level (SEL_{24h}), and peak pressure (PK) thresholds.

Effect type	Criterion	SPL (L_p; dB re 1 µPa)	Weighted SEL_{24h} ($L_{E,24h}$; dB re 1 µPa^2·s)	PK (L_{pk}; dB re 1 µPa)
Behavioural response	McCauley et al. (2000a)	166	NA	
Behavioural disturbance		175		
PTS onset thresholds [a] (received level)	Finneran et al. (2017)	NA	204	232
TTS onset thresholds [a] (received level)			189	226

[a] Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS and TTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.
L_p denotes sound pressure level period and has a reference value of 1 µPa.
$L_{pk,flat}$ denotes peak sound pressure is flat weighted or unweighted and has a reference value of 1 µPa.
L_E denotes cumulative sound exposure over a 24 h period and has a reference value of 1 µPa^2s.

2.3. Invertebrates

Research is ongoing into the relationship between sound and its effects on crustaceans, including the relevant metrics for both effect and impact. Available literature suggests particle motion, rather than sound pressure, is a more important factor for crustacean and bivalve hearing. Water depth and seismic source size are related to the particle motion levels at the seafloor, with larger arrays and shallower water being related to higher particle motion levels, more likely relevant to effects on crustaceans and bivalves. Information is only available to define levels for assessment for impulsive sources.

At the seafloor interface, crustaceans and bivalves are subject to particle motion stimuli from several acoustic or acoustically induced waves. These include the particle motion associated with an impinging sound pressure wave in the water column (the incident, reflected, and transmitted portions), substrate acoustic waves, and interface waves of the Scholte type. However, it is unclear which aspect(s) of these waves is/are most relevant to the animals, either when they normally sense the environment or their physiological responses to loud sounds so there is not enough information to establish similar criteria and thresholds as done for marine mammals and fish. Including recent research, such as Day et al. (2016b), current literature does not clearly define an appropriate metric or identify relevant levels (pressure or particle motion) for an assessment. This includes the consideration of what particle motion levels lead to a behavioural response, or mortality. Therefore, at this stage, we cannot propose authoritative thresholds to inform the impact assessment. However, levels can be determined for pressure metrics presented in literature to assist the assessment.

The pressure and acceleration examples provided in Day et al. (2016a) as their Figures 11 and 12 indicate that the acceleration and pressure signals occurred simultaneously, which was interpreted as an indication that the waterborne sounds were responsible for the accelerations measured by the geophones. For clarity, it is important to distinguish that the acceleration from waterborne sound energy is not ground roll, which Day et al. (2016a) correctly define as the sound that propagates along the interface at a speed lower than the shear wave speed of the sediment. However, the report subsequently uses ground roll for all further discussions of particle acceleration. While Day et al. (2016a) discuss that they chose the simplest measure of ground roll, it should have been referred to as “the acceleration from waterborne sound energy”, or ‘waterborne acceleration’ for short.

For crustaceans, a PK-PK sound level of 202 dB re 1 µPa (Payne et al. 2008) is considered to be associated with no effect, and it was therefore applied in this assessment. Additionally for context related to different levels of potential impairment, the PK-PK sound levels determined for crustaceans in Day et al. (2016b), 209–212 dB re 1 µPa and 213 dB re 1 µPa from Day et al. (2019), are also included.

3. Methods and Parameters

The following sections provided a high-level description of the inputs used for this underwater noise modelling study. The sections are divided into subsections detailing the source inputs for the MODU and AHTS (Section 3.1), the VSP array (Section 3.2), and the SBP (Section 3.3), with Section 3.4 providing the details on the applied modelling technique and model configuration information.

3.1. Vessel and Drilling Noise Sources

3.1.1. Mobile Offshore Drilling Unit (MODU)

The MODU, or semi-submersible platform considered by ConocoPhillips will likely be similar to the *Ocean Onyx*, (Figure 13), therefore this is the MODU considered in the modelling. While in operation, the MODU will be held in position via anchors and chains, as opposed to using thrusters. Underwater sound from the platform while drilling is expected to originate primarily from onboard equipment vibrations, while a smaller portion of the sound is expected to be transmitted directly into the water via the vibrating drill (Austin et al. 2018). Since the dominant vibration sources (e.g., pumps, generators, and machinery) are located on or below the main deck of the platform, the modelled depth of the point source representing the MODU was set to 11.6 m, which is approximately half the draft of the *Ocean Onyx*.

The *Ocean Onyx* (Figure 13) was measured by JASCO while anchored and drilling (McPherson et al. 2021). It had a broadband (10 Hz to 31 kHz) source level of 175.4 dB re 1 µPa m.

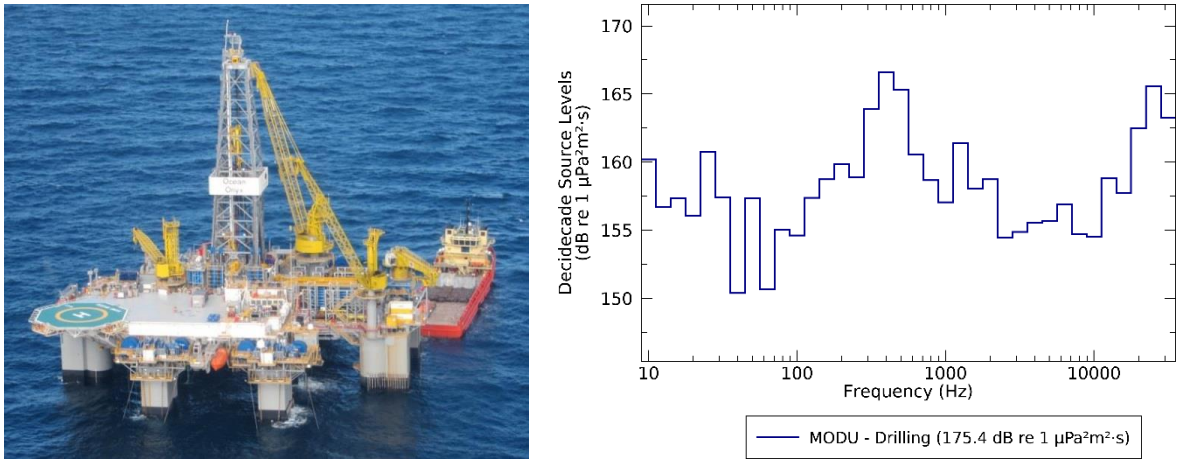


Figure 13. (Left) Photo of the *Ocean Onyx* semi-submersible platform and (right) the associated decidecade source level spectrum.

3.1.2. Anchor Handling Tug Supply (AHT) Vessel

Underwater sound that radiates from vessels is produced mainly by propeller and thruster cavitation, with a smaller fraction of noise produced by sound transmitted through the hull, such as by engines, gearing, and other mechanical systems. Sound levels tend to be the highest when thrusters are used to position the vessel and when the vessel is transiting at high speeds. A vessel's sound signature depends on the vessel's size, power output, propulsion system (e.g., conventional propellers versus Voith Schneider propulsion), and the design characteristics of the given system (e.g., blade shape and size). A vessel produces broadband acoustic energy with most energy emitted below a few kilohertz. Sound from onboard machinery, particularly sound below 200 Hz, dominates the sound spectrum before cavitation begins (Spence et al. 2007).

At this stage, the exact vessel specifications as well as the precise operational scenarios are not known. As such, estimates of the source levels for support vessel operations were based on a generic design of an Anchor Handling Tug Supply (AHTS) vessel. The generic ATHS vessel was based on the Siem AHTS VS491 CD design (Figure 14) and its specifications (Siem Offshore 2010) were used to form a basis for vessel source level estimation and source depth for acoustic modelling purposes. The general specification of these vessels is that they have a bollard pull of 285–310 t, and an overall length, beam, and draft of 91.0, 22.0, and 7.95 m, respectively.

The measured monopole source levels (MSLs) and spectra for the AHTS were from McPherson et al. (2021). For scenarios where the AHTS was under dynamic positioning (DP), the spectra from Section 5.5.2 in McPherson et al. (2021) were used.

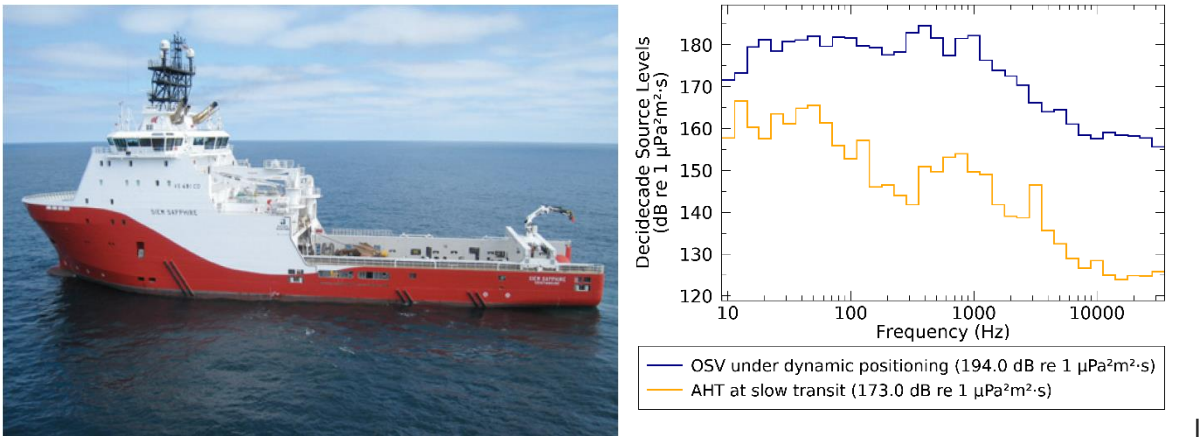


Figure 14. (Left) Photo of an Anchor Handling Tug Supply (AHTS) vessel and (right) the associated decidecade source level spectra (Photo source: Siem Offshore 2010).

3.2. Vertical Seismic Profiling Acoustic Source

The pressure signature of the individual airguns and the composite decidecade band point-source equivalent directional levels (i.e., source levels) of the 750 in^3 Vertical Seismic Profiling (VSP) source suspended at 5 m were modelled with JASCO's Airgun Array Source Model (AASM; see Appendix B).

3.2.1. Acoustic Source Model

AASM accounts for the notional pressure signatures of each source element with respect to the effects of surface-reflected signals on bubble oscillations and inter-bubble interactions, the surface-reflected signal (known as surface ghost) is not included in the far-field source signatures. The acoustic propagation models account for those surface reflections, which are a property of the propagating medium rather than the source. AASM considers:

- Array layout;
- Volume, depth, and firing pressure of each airgun; and
- Interactions between different airguns in the array.

3.3. Boomer Sub-bottom Profiling Acoustic Source

Sub-Bottom Profiling (SBP) systems are used to determine the physical properties of the seabed and to image and characterise geological information below the seabed and evaluate the near-seabed stratigraphy for hazards. SBP utilises an acoustic source typically towed just behind the vessel, with a hydrophone towed approximately 25 m behind the vessel to record the reflected sound waves.

Different SBP systems (pinger, compressed high intensity radar pulse (CHIRP) and boomer/sparker systems) are used depending on the objectives of the survey, water depths and prior knowledge of seabed geology with the main difference between each SBP system being the operating frequency.

The representative boomer system chosen for geophysical survey operations is the AP3000 triple-plate boomer (manufactured by Subsea Systems, Inc.). To estimate the sound field for the boomer source, the specifications of the Applied Acoustics AA202 boomer plate (Applied Acoustics Engineering 2013), a suitable approximation, were taken to represent a single plate, three of which comprise the full system. The boomer plate is 38 cm wide by 38 cm long with a circular baffle. Because the boomer source is a circular piston surrounded by a rigid baffle, it cannot be considered a point-like source (Verbeek and McGee 1995). The beam pattern of a boomer plate shows some directivity for frequencies above 1 kHz. Above this frequency, the acoustic wave's emitted length becomes comparable (of the same order of magnitude) with the baffle size (< 150 cm vs. 35 cm).

The input energy for the AP3000 system is up to 600 J per pulse per plate, or up to 1,800 J per pulse from all three plates. The width of the pulse calculated based on the 90% SPL (T_{90}) is 8.1 ms.

JASCO performed a source verification study on an AP3000 system (Martin et al. 2012) with a double-plate configuration operating at maximum input energy of 1000 J. During the study, the acoustic data were collected as close as 8 m to the source and directly below it (Figure 15). The power spectrum of the boomer signal was determined directly from the measurement of the boomer signal having compensated the change in energy (Figure 16). The sound levels were back-propagated to obtain source levels using a geometrical approximation based on the method of images and plane-wave reflection coefficients. The reflection coefficients considered seabed attenuation and shear properties, as well as the seabed layering.

The increase in the source level of an AP3000 boomer when in triple-plate configuration, instead of double-plate configuration, was estimated at 2.6 dB because a triple-plate configuration could be used

with a higher energy input per pulse (up to 1800 J vs. up to 1000 J for double plate configuration). For modelling, the source level of the AP3000 triple-plated boomer operating at 1800 J per pulse energy was calculated to be 169.0 dB 1 μPa^2m^2s (Table 19). The 1/3-octave frequency boomer source spectra are shown in Figure 17. Boomer source spectra calculated from measurements (Martin et al. 2012).

Table 19. Specifications of the AP3000 triple-plate boomer system towed at a depth of 2 m used for the modelling

Specification	Specification	Source
Operating frequency (broad band):	200 Hz–16 kHz;	Estimated from field measurements; Martin et al. (2012)
Beam width	omnidirectional –8°	System specification document
Beams	1	
Tilt angle (below horizontal plane)	90°	
Maximum energy input (per pulse):	1800 J	
Per-pulse SEL source level	169.0 dB 1 μPa^2m^2s	Estimated from field measurements; Martin et al. (2012).

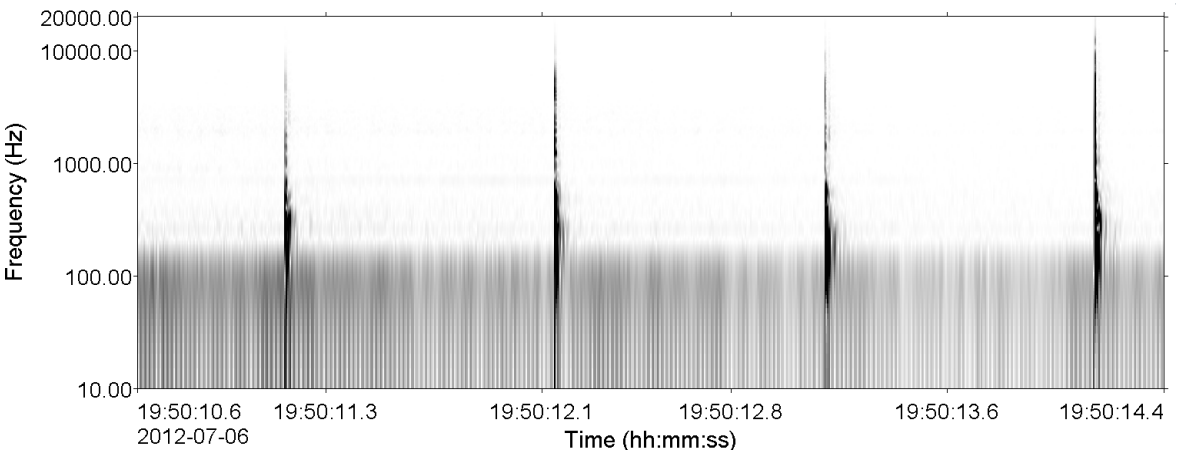


Figure 15. Spectrogram of dual-plate boomer (1000 J) pulses at the closest point of approach. Majority of energy is between 100 and 1000 Hz, with some energy at up to 10 kHz. (131,072 point FFT, 7000 data points, 3500 point overlap, Figure 15 in Martin et al. (2012)).

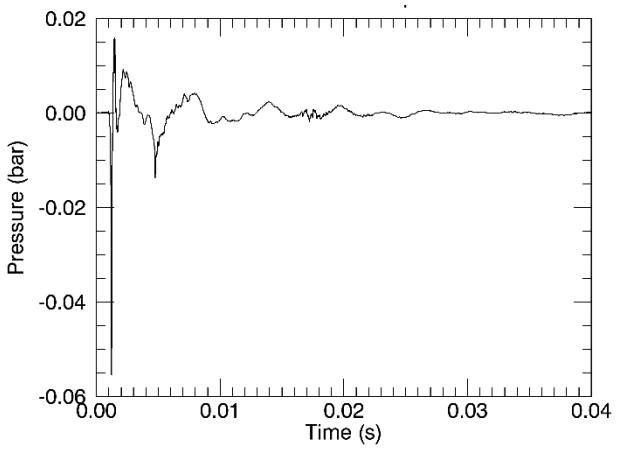


Figure 16. Boomer received timeseries (adjusted to 1800 J), where source depth is 2 m, receiver depth is 8 m, from the measurement Martin et al. (2012).

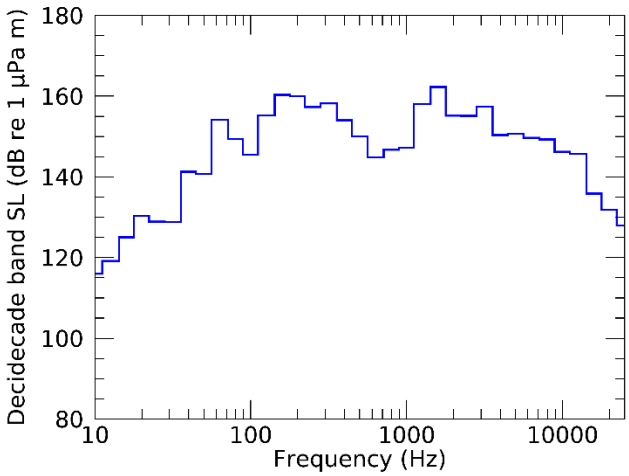


Figure 17. Boomer source spectra calculated from measurements (Martin et al. 2012).

3.4. Geometry and Modelled Regions

Several fit-for-purpose propagation models were used to model underwater noise emission from the scenarios considered for this study. Details on the model configuration is provided below.

The accuracy of the broadband calculated propagation loss for the Otway Basin continental shelf environment depends significantly upon the frequency content of the radiating sound source together with thickness of the sand layer on carbonate seabed (calcarenite) likely to occur within the region. In general, the thinner the sand layer, the greater the overall propagation loss. A measurement study in the Otway Basin of the *Ocean Onyx* and associated activities was previously undertaken (McPherson et al. 2021). This study found significant rates of propagation loss occurred in the region. As part of the model-measurement validation an adjustment factor was applied broadband received level predictions to account for the loss associated with a cemented limestone seabed (calcarenite). A similar adjustment, which only differed by accounting for sources in different water depths, was applied to broadband level predictions in this study as a very similar type of seabed environment is expected to be present.

3.4.1. Sound Propagation Models

Three sound propagation models were used to predict the acoustic field around the seismic source:

- Combined range-dependent parabolic equation and Gaussian beam acoustic ray-trace model (MONM-BELLHOP, see Appendix D.1.2, 10 Hz to 25 kHz).
- Full Waveform Range-dependent Acoustic Model (FWRAM, see Appendix D.1.3, 10 to 1024 Hz).
- Wavenumber integration model (VSTACK, see Appendix D.1.4, 10 to 1024 Hz).

3.4.2. Vessel and Drilling Noise

JASCO's Marine Operations Noise Model (MONM-BELLHOP; see Appendix D.1.2) was used to predict the acoustic field at frequencies of 10 Hz to 25 kHz for all vessel sources. To supplement the MONM results, high-frequency results for propagation loss were modelled using Bellhop for frequencies from 1.26 to 25 kHz. The sound field modelling calculated propagation losses up to 100 km from the source, with a horizontal separation of 20 m between receiver points along the modelled radials. A horizontal angular resolution of $\Delta\theta$ = 2.5° for a total of N = 144 radial planes were

used. Receiver depths were chosen to span the entire water column over the modelled areas, from 2 m to a maximum of 5000 m, with step sizes that increased with depth.

For all stationary vessels, the SPL modelling results were converted to SEL by the duration of the measurement, which is appropriate for a non-impulsive noise source. As SEL was assessed over 8 or 24 h for a stationary vessel over a day (see Table 10), the conversion from SPL was obtained by increasing the levels by $10*\log_{10}(T)$, where T is either 28,800 or 86,400 (the number of seconds in 8 or 24 h, respectively).

For scenarios where a vessel was transiting along a track, a similar adjustment to the SPL was applied; however, the time factor was determined based on the step size along the track and the vessel's speed. See Appendix D.5 for details.

3.4.3. Vertical Seismic Profiling (VSP) and Sub-bottom Profiling

The above models were used in combination to characterise the acoustic fields at short and long ranges and in terms of SEL, SPL, PK, and PK-PK. Appendix D.1 details each model. MONM-BELLHOP was used to calculate SEL of a 360° area around each source location. FWRAM was used to model synthetic seismic and boomer pulses and to generate generalised range-dependent SEL to SPL conversion functions for the considered modelled sites. The range-dependent conversion functions were applied to predicted per-pulse SEL results from MONM-BELLHOP to estimate SPL values. FWRAM was also used to calculate water column PK and PK-PK levels.

VSTACK was used to calculate conversion functions applied to each modelled source, to better account for the increased bottom loss caused by the high sheer wave speed in the calcareous seabed of this area, see Appendix D.1.5 for detail. Additionally, VSTACK was used to calculate the near field PK, PK-PK levels along 4 transects at the seafloor along the endfire and broadside directions for the VSP source. The boomer SBP PK sound level is too low to reach any relevant thresholds, and no near-field PK or PK-PK VSTACK calculations were performed for this scenario.

3.4.3.1. Per-pulse Modelling

To assess sound levels with MONM-BELLHOP, the sound field modelling calculated propagation losses up to distances at least 100 km from the source, with a horizontal separation of 20 m between receiver points along the modelled radials. The sound fields were modelled with a horizontal angular resolution of $\Delta\theta$ = 2.5° for a total of N = 144 radial planes. Receiver depths were chosen to span the entire water column over the modelled areas, from 2 m to a maximum of 4000 m, with step sizes that increased with depth. To supplement the MONM results, high-frequency results for propagation loss were modelled using Bellhop for frequencies from 1.26 to 25 kHz. The MONM and Bellhop results were combined to produce results for the full frequency range of interest.

FWRAM was run to 100 km along only two radials (one endfire, one broadside) for computational efficiency from 5 to 1024 Hz in 1 Hz steps. In the context of VSP source geometry (see Appendix B.2), the radials were modelled perpendicular to the sagittal plane of the array and parallel to the sagittal plane of the array. This was done to compute SEL-to-SPL conversions (see Appendix D.4) but also to quantify water column PK and PK-PK. The horizontal range step was dependent on frequency and ranged from 50 m at lower frequencies to 10 m above 800 Hz.

For the VSP modelling, the maximum modelled range for VSTACK was 1000 m and a variable receiver range increment that increased away from the source, from 10 to 25 m, was used. Received levels were computed for a receiver 0.5 m above the seafloor.

3.4.3.2. Multiple-pulse Modelling

The VSP operation was assessed in this report by considering several potential scenarios for a maximum number of pulses per 24 h. The SEL was assessed over 24 h by adjusting the per-pulse SEL by $10*\log_{10}(N)$ (see Equation A-3), where the total number of pulses N was 10, 50, 100, or 130 per 24 h dependent on scenario at the two MODU locations (see Table 11).

The modelled accumulated SEL scenario for the SBP considered a set of nominal tracks where the acoustic source would be towed behind a vessel. The SBP acoustic source was modelled at multiple points along this track. When there are many pulses, it becomes computationally prohibitive to perform sound propagation modelling for every single event. If the distance between the consecutive pulses is small enough, the environmental parameters that influence sound propagation are virtually the same for many points. The acoustic fields can therefore, be modelled for a subset of pulses and estimated at several adjacent ones. The method to predict accumulated sound fields considered individual sound fields from representative modelled sites, which were then translated to account for the source position for nearby impulses. The sound field grids from all impulses were summed (Equation A-5) to produce the cumulative sound field grid with cell sizes of 20 m. The contours and threshold ranges were calculated from these flat Cartesian projections of the modelled acoustic fields.

The accumulated sound field computed with this approach is not as precise as modelling sound propagation at every impulse location, small-scale, site-specific sound propagation features tend to blur and become less relevant when sound fields from adjacent impulses are summed. Larger scale sound propagation features, primarily dependent on water depth, dominate the cumulative field.

4. Results

The maximum-over-depth sound fields for the modelled scenarios (described in Section 1.1) are presented below in two formats: as tables of distances to sound levels and, where the distances are long enough, as contour maps showing the directivity and range to various sound levels.

4.1. Vessel Operation Scenarios

4.1.1. Tabulated Results

Table 20 presents the maximum and 95% distances (defined in Appendix D.3) to SPL isopleths and thresholds at all drilling locations in T/49P and Tables 21 and Table 22 present the maximum and 95% distances to SPL isopleths and thresholds at all drilling locations in VIC/P79 for typical on-shelf locations and the deeper Garfield West location, respectively.

For the results below, the distances to isopleths/thresholds were reported from the most dominant single source, except for the distance to marine mammal behavioural response in Scenario 5. For this scenario, where the contour of the threshold is characterised by two lobes, the centroid location between the MODU and the centre of the standby box was used. Maps are provided in Section 4.1.2 to assist with contextualising tabulated distances.

Table 20. T/49P: *Vessel and drilling scenarios*: Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) to sound pressure level (SPL) isopleths and thresholds at all drilling locations. Scenario descriptions are given in Table 10.

SPL (L_p; dB re 1 µPa)	Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU		Scenario 4: MODU+Supply vessel		Scenario 5: MODU+Standby vessel		Scenario 6: MODU+Supply+ Standby vessels	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
British Admiral												
170[a]	–	–	0.02	0.02	–	–	0.08	0.08	–	–	0.03	0.03
160	–	–	0.08	0.08	0.02	0.02	0.13	0.12	–	–	0.08	0.08
158[b]	–	–	0.13	0.12	0.02	0.02	0.18	0.16	–	–	0.14	0.12
150	–	–	0.39	0.37	0.03	0.03	0.43	0.40	0.03	0.03	0.39	0.38
140	0.03	0.03	1.02	0.98	0.09	0.09	1.04	0.93	0.10	0.09	1.03	0.98
130	0.16	0.16	3.15	2.86	0.43	0.40	3.13	2.87	0.42	0.40	3.13	2.88
120[c]	0.50	0.47	11.3	10.3	1.41	1.30	11.4	10.4	2.32	2.09	11.4	10.4
110	1.30	1.16	37.0	32.8	5.16	4.69	37.6	33.3	5.25	4.85	37.6	33.3
Flanagan												
170[a]	–	–	0.02	0.02	–	–	0.08	0.08	–	–	0.04	0.03
160	–	–	0.08	0.08	–	–	0.12	0.12	–	–	0.08	0.08
158[b]	–	–	0.13	0.13	0.02	0.02	0.19	0.17	–	–	0.13	0.13
150	–	–	0.38	0.36	0.03	0.03	0.42	0.39	0.03	0.03	0.39	0.36
140	0.03	0.03	0.99	0.90	0.13	0.12	1.02	0.93	0.13	0.12	1.01	0.96
130	0.18	0.17	3.21	3.02	0.42	0.40	3.24	3.04	0.41	0.40	3.24	3.04
120[c]	0.44	0.42	11.8	10.6	1.34	1.24	12.0	10.9	2.03	10.7	12.0	10.9
110	1.21	1.17	39.4	35.4	5.09	4.77	39.9	36.1	5.13	4.83	39.9	36.1
British Admiral West												
170[a]	n/a	n/a	n/a	n/a	–	–	0.08	0.08	n/a	n/a	n/a	n/a
160	n/a	n/a	n/a	n/a	–	–	0.13	0.12	n/a	n/a	n/a	n/a
158[b]	n/a	n/a	n/a	n/a	–	–	0.15	0.14	n/a	n/a	n/a	n/a
150	n/a	n/a	n/a	n/a	0.03	0.03	0.41	0.38	n/a	n/a	n/a	n/a
140	n/a	n/a	n/a	n/a	0.09	0.09	1.04	0.94	n/a	n/a	n/a	n/a
130	n/a	n/a	n/a	n/a	0.44	0.41	3.17	2.92	n/a	n/a	n/a	n/a
120[c]	n/a	n/a	n/a	n/a	1.48	1.25	11.8	10.5	n/a	n/a	n/a	n/a
110	n/a	n/a	n/a	n/a	4.95	4.58	39.6	35.8	n/a	n/a	n/a	n/a

[a] 48 h threshold for recoverable injury for fish with a swim bladder involved in hearing (Popper et al. 2014).
[b] 12 h threshold for TTS for fish with a swim bladder involved in hearing (Popper et al. 2014).
[c] Threshold for marine mammal behavioural response to non-impulsive noise (NOAA 2019).
A dash indicates the threshold is not reached within the limits of the modelled resolution (20 m).

Table 21. VIC/79P: *Vessel and drilling scenarios*: Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) to sound pressure level (SPL) isopleths and thresholds at all locations. Scenario descriptions are given in Table 10.

SPL (L_p; dB re 1 µPa)	Scenario 1: Prelay		Scenario 2: Mooring		Scenario 5: MODU+Standby vessel		Scenario 6: MODU+Supply +Standby vessels	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
Merope								
180	–	–	–	–	–	–	0.02	0.02
170[a]	–	–	0.02	0.02	–	–	0.02	0.02
160	–	–	0.10	0.10	–	–	0.10	0.10
158[b]	–	–	0.13	0.13	–	–	0.13	0.13
150	–	–	0.34	0.33	0.03	0.03	0.35	0.33
140	0.03	0.03	0.99	0.88	0.12	0.12	0.99	0.89
130	0.15	0.14	3.66	3.16	0.42	0.40	4.26	3.58
120[c]	0.44	0.39	12.0	10.6	2.25	2.03	12.6	10.8
110	1.18	1.10	41.1	33.6	5.79	5.26	41.9	34.0
Julpha								
180	–	–	–	–	–	–	0.02	0.02
170[a]	–	–	0.02	0.02	–	–	0.02	0.02
160	–	–	0.09	0.09	–	–	0.09	0.09
158b	–	–	0.13	0.13	–	–	0.13	0.13
150	–	–	0.35	0.34	0.02	0.02	0.35	0.34
140	0.03	0.03	1.09	0.90	0.13	0.13	1.09	0.91
130	0.13	0.13	3.62	3.25	0.47	0.45	4.28	3.63
120[c]	0.42	0.40	12.2	10.9	2.39	2.12	12.3	11.1
110	1.11	1.07	39.9	34.7	6.70	6.05	40.8	34.8
Essington								
180	–	–	–	–	–	–	0.02	0.02
170[a]	–	–	0.02	0.02	–	–	0.03	0.03
160	–	–	0.07	0.07	–	–	0.08	0.08
158[b]	–	–	0.13	0.13	–	–	0.14	0.13
150	–	–	0.38	0.36	0.03	0.03	0.38	0.37
140	0.03	0.03	1.00	0.90	0.12	0.12	1.00	0.91
130	0.18	0.17	3.18	2.93	0.42	0.40	3.70	3.34
120[c]	0.47	0.44	11.6	10.5	2.44	2.11	12.2	10.9
110	1.21	1.16	37.1	32.3	5.50	5.04	38.0	32.9
Garfield								
180	–	–	–	–	–	–	0.02	0.02
170[a]	–	–	0.02	0.02	–	–	0.03	0.03
160	–	–	0.07	0.07	–	–	0.08	0.08
158b	–	–	0.09	0.09	–	–	0.10	0.09
150	–	–	0.31	0.29	0.03	0.03	0.31	0.30
140	0.03	0.03	0.91	0.83	0.09	0.09	0.91	0.84
130	0.18	0.17	3.06	2.72	0.42	0.40	3.57	3.06
120c	0.44	0.41	11.6	10.1	2.32	2.00	12.2	10.2
110	1.20	1.12	39.4	32.7	5.26	4.62	40.9	33.1

[a] 48 h threshold for recoverable injury for fish with a swim bladder involved in hearing (Popper et al. 2014).
[b] 12 h threshold for TTS for fish with a swim bladder involved in hearing (Popper et al. 2014).
[c] Threshold for marine mammal behavioural response to non-impulsive noise (NOAA 2019).
A dash indicates the threshold is not reached within the limits of the modelled resolution (20 m).

Table 22. VIC/P79: *Garfield West vessel and drilling scenarios*: Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) to sound pressure level (SPL) isopleths and thresholds at both drilling locations. Scenario descriptions are given in Table 10.

SPL (L_p; dB re 1 µPa)	Demo Scenario 3: Drilling		Demo Scenario 6: Drilling with resupply	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
180	–	–	0.02	0.02
170[a]	–	–	0.06	0.06
160	–	–	0.06	0.06
158[b]	–	–	0.08	0.08
150	0.02	0.02	0.20	0.20
140	0.07	0.07	1.17	0.99
130	0.25	0.24	7.84	5.43
120[c]	1.39	1.16	22.8	18.9
110	8.78	6.64	141	98.7

[a] 48 h threshold for recoverable injury for fish with a swim bladder involved in hearing (Popper et al. 2014).
[b] 12 h threshold for TTS for fish with a swim bladder involved in hearing (Popper et al. 2014).
[c] Threshold for marine mammal behavioural response to non-impulsive noise (NOAA 2019).
A dash indicates the threshold is not reached within the limits of the modelled resolution (20 m).

Tables 23 to 30 present the maximum distances to frequency weighted SEL_{24h} thresholds, as well as total ensonified area for all scenarios at all nominal locations in T/49P and VIC/P79.

Table 23. T/49P: *British Admiral—Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	*British Admiral*											
		Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU		Scenario 4: MODU+Supply vessel		Scenario 5: MODU+ Standby vessel		Scenario 6: MODU+Supply +Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS													
LF cetaceans	199	–	/	0.27	0.21	0.03	/	0.19	0.07	0.03	/	0.20	0.07
HF cetaceans	198	–	/	–	/	0.02	/	0.06	/	–	/	0.06	/
VHF cetaceans	173	–	/	0.11	0.04	0.19	0.10	0.21	0.12	0.19	0.1	0.21	0.12
Otariid seals	219	–	/	–	/	–	/	0.06	/	–	/	0.06	/
Sea turtles	220	–	/	–	/	–	/	0.06	/	–	/	0.06	/
TTS													
LF cetaceans	179	0.07	0.69	2.88	21.1	0.40	0.41	1.76	7.25	0.41	1.08	1.79	7.93
HF cetaceans	178	–	/	0.09	0.03	0.09	0.03	0.14	0.04	0.09	0.03	0.16	0.04
VHF cetaceans	153	–	/	1.43	6.39	1.53	7.29	1.73	8.52	1.54	7.41	1.79	8.71
Otariid seals	199	–	/	0.08	0.02	0.02	/	0.10	0.01	–	/	0.10	0.01
Sea turtles	200	–	/	0.22	0.15	0.02	/	0.20	0.07	–	/	0.20	0.07

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 24. T/49P: *Flanagan—Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 µPa²·s)	*Flanagan*											
		Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU		Scenario 4: MODU+Supply vessel		Scenario 5: MODU+ Standby vessel		Scenario 6: MODU+Supply +Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS													
LF cetaceans	199	–	/	0.29	0.25	0.03	/	0.20	0.07	0.03	/	0.20	0.07
HF cetaceans	198	–	/	–	/	0.02	/	0.06	/	–	/	0.06	/
VHF cetaceans	173	–	/	0.12	0.05	0.18	0.10	0.21	0.13	0.17	0.1	0.25	0.13
Otariid seals	219	–	/	–	/	–	/	0.06	/	–	/	0.06	/
Sea turtles	220	–	/	–	/	–	/	0.06	/	–	/	0.06	/
TTS													
LF cetaceans	179	0.07	0.69	3.11	22.2	0.38	0.45	1.68	7.38	0.40	1.12	1.68	8.02
HF cetaceans	178	–	/	0.09	0.03	0.10	0.03	0.14	0.05	0.09	0.03	0.16	0.05
VHF cetaceans	153	–	/	1.43	6.43	1.54	7.29	1.72	8.80	1.54	7.42	1.80	8.99
Otariid seals	199	–	/	0.08	0.02	0.02	/	0.10	0.01	–	/	0.10	0.01
Sea turtles	200	–	/	0.22	0.15	0.02	/	0.20	0.07	–	/	0.20	0.07

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 25. T/49P: *British Admiral West—Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	*British Admiral West*			
		Scenario 3: MODU		Scenario 4: MODU+Supply vessel	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS					
LF cetaceans	199	0.03	/	0.19	0.07
HF cetaceans	198	–	/	0.06	/
VHF cetaceans	173	0.18	0.10	0.21	0.12
Otariid seals	219	–	/	0.06	/
Sea turtles	220	–	/	0.06	/
TTS					
LF cetaceans	179	0.42	0.40	1.66	7.00
HF cetaceans	178	0.09	0.03	0.13	0.04
VHF cetaceans	153	1.54	7.26	1.74	8.42
Otariid seals	199	–	/	0.10	0.01
Sea turtles	200	–	/	0.20	0.07

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 26. VIC/P79 – Northern extent: *Merope Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU+Standby vessel		Scenario 4: MODU+Supply+Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS									
LF cetaceans	199	–	/	0.30	0.26	0.02	/	0.18	0.08
HF cetaceans	198	–	/	–	/	–	/	0.04	/
VHF cetaceans	173	–	/	0.13	0.06	0.20	0.12	0.21	0.11
Otariid pinnipeds in water	219	–	/	–	/	–	/	0.02	/
Sea turtles	220	–	/	–	/	–	/	0.06	/
TTS									
LF cetaceans	179	2.53	0.69	3.42	28.8	0.41	1.09	1.93	7.98
HF cetaceans	178	–	/	0.11	0.04	0.12	0.04	0.15	0.06
VHF cetaceans	153	–	/	1.516	6.86	2.83	7.42	3.22	8.99
Otariid pinnipeds in water	199	–	/	0.07	0.02	–	/	0.07	0.01
Sea turtles	200	–	/	0.28	0.18	–	/	0.13	0.05

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 27. VIC/P79 – Northern extent: *Julpha Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU+Standby vessel		Scenario 4: MODU+Supply+Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS									
LF cetaceans	199	–	/	0.30	0.26	0.02	/	0.20	0.10
HF cetaceans	198	–	/	–	/	–	/	0.04	/
VHF cetaceans	173	–	/	0.15	0.07	0.21	0.12	0.24	0.14
Otariid pinnipeds in water	219	–	/	–	/	–	/	0.02	/
Sea turtles	220	–	/	–	/	–	/	0.06	/
TTS									
LF cetaceans	179	2.70	0.69	3.59	29.8	0.46	1.23	1.64	11.1
HF cetaceans	178	–	/	0.12	0.04	0.12	0.04	0.15	0.06
VHF cetaceans	153	–	/	1.55	7.07	2.84	7.39	2.89	9.11
Otariid pinnipeds in water	199	–	/	0.08	0.02	–	/	0.07	0.01
Sea turtles	200	–	/	0.23	0.16	–	/	0.15	0.06

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 28. VIC/P79 – Southern extent: *Essington Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU+Standby vessel		Scenario 4: MODU+Supply+Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS									
LF cetaceans	199	–	/	0.32	0.25	0.03	/	0.18	0.07
HF cetaceans	198	–	/	–	/	–	/	0.04	/
VHF cetaceans	173	–	/	0.12	0.04	0.18	0.10	0.21	0.12
Otariid pinnipeds in water	219	–	/	–	/	–	/	0.02	/
Sea turtles	220	–	/	–	/	–	/	0.06	/
TTS									
LF cetaceans	179	2.73	0.69	3.11	22.2	0.41	1.13	1.62	7.81
HF cetaceans	178	–	/	0.09	0.03	0.09	0.03	0.14	0.05
VHF cetaceans	153	–	/	1.44	6.42	2.98	7.42	2.96	8.95
Otariid pinnipeds in water	199	–	/	0.08	0.02	–	/	0.07	0.01
Sea turtles	200	–	/	0.22	0.16	–	/	0.14	0.07

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 29. VIC/P79 – Southern extent: *Garfield Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	Scenario 1: Prelay		Scenario 2: Mooring		Scenario 3: MODU+Standby vessel		Scenario 4: MODU+Supply+ Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS									
LF cetaceans	199	–	/	0.27	0.21	0.03	/	0.15	0.05
HF cetaceans	198	–	/	–	/	–	/	0.04	/
VHF cetaceans	173	–	/	0.11	0.04	0.19	0.09	0.21	0.11
Otariid pinnipeds in water	219	–	/	–	/	–	/	0.02	/
Sea turtles	220	–	/	–	/	–	/	0.06	/
TTS									
LF cetaceans	179	2.49	0.69	2.82	18.9	0.39	1.03	1.62	6.98
HF cetaceans	178	–	/	0.09	0.03	0.09	0.03	0.13	0.04
VHF cetaceans	153	–	/	1.40	6.14	2.88	7.37	2.92	8.40
Otariid pinnipeds in water	199	–	/	0.08	0.02	–	/	0.07	0.01
Sea turtles	200	–	/	0.23	0.16	–	/	0.12	0.03

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

Table 30. VIC/P79 – Southern extent: *Garfield West Vessel and drilling scenarios:* Maximum (R_{max}) horizontal distances (in km) to frequency-weighted SEL_{24h} permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds based on Southall et al. (2019) and Finneran et al. (2017) from the most appropriate location for considered sources per scenario, and ensonified area (km^2). Scenario descriptions are given in Table 10.

Hearing group	Frequency-weighted SEL_{24h} threshold ($L_{E,24h}$; dB re 1 $\mu Pa^2 \cdot s$)	Scenario 3: MODU+Standby vessel		Scenario 4: MODU+Supply+ Standby vessels	
		R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
PTS					
LF cetaceans	199	–	/	0.15	0.03
HF cetaceans	198	–	/	0.06	/
VHF cetaceans	173	0.13	0.06	0.16	0.07
Otariid pinnipeds in water	219	–	/	0.06	/
Sea turtles	220	–	/	0.06	/
TTS					
LF cetaceans	179	0.23	0.16	2.30	11.5
HF cetaceans	178	0.09	0.02	0.12	0.03
VHF cetaceans	153	1.51	7.10	1.66	7.95
Otariid pinnipeds in water	199	–	/	0.08	/
Sea turtles	200	–	/	0.13	0.02

A dash indicates the level was not reached within the limits of the modelled resolution (20 m).
A slash indicates that the area is less than an area associated with the modelled resolution (0.0013 km^2).

4.1.2. Sound Field Maps

Maps of the estimated sound fields, threshold contours and isopleths of interest for SPL and SEL_{24h} sound fields are presented in the following sections, sorted by each nominal location and then by scenario.

4.1.2.1. Instantaneous SPL Sound level Contour Maps

4.1.2.1.1. *T/49P British Admiral*

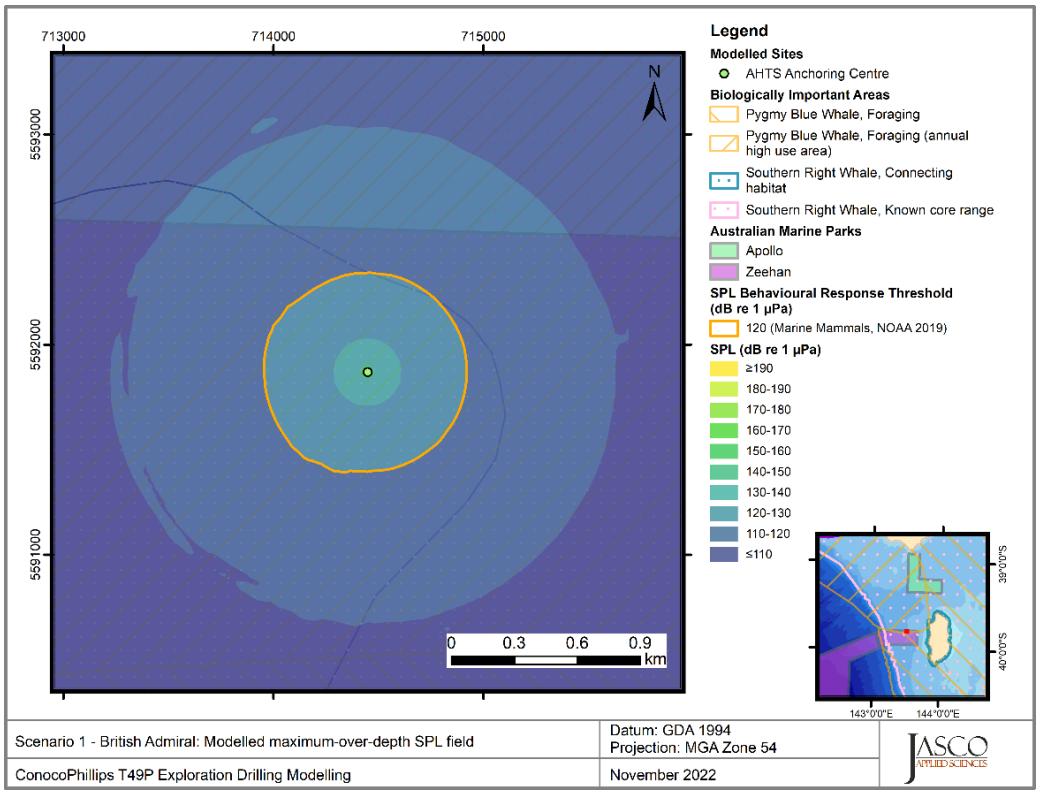


Figure 18. *Scenario 1*— T/49P *British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

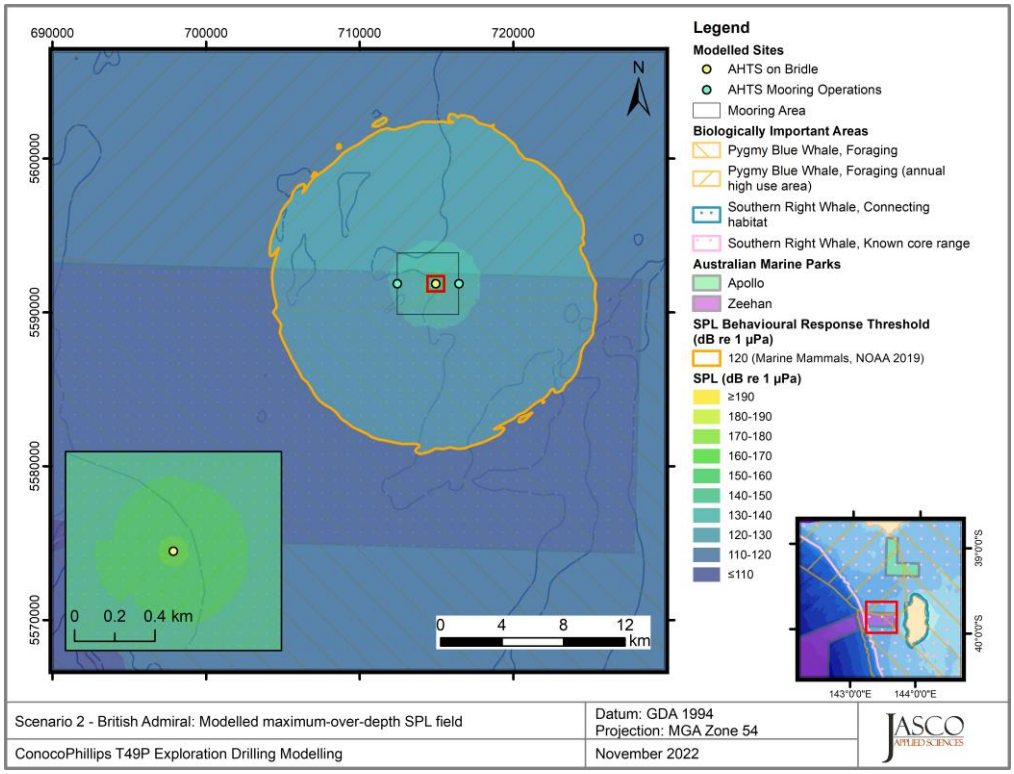


Figure 19. *Scenario 2*— T/49P *British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

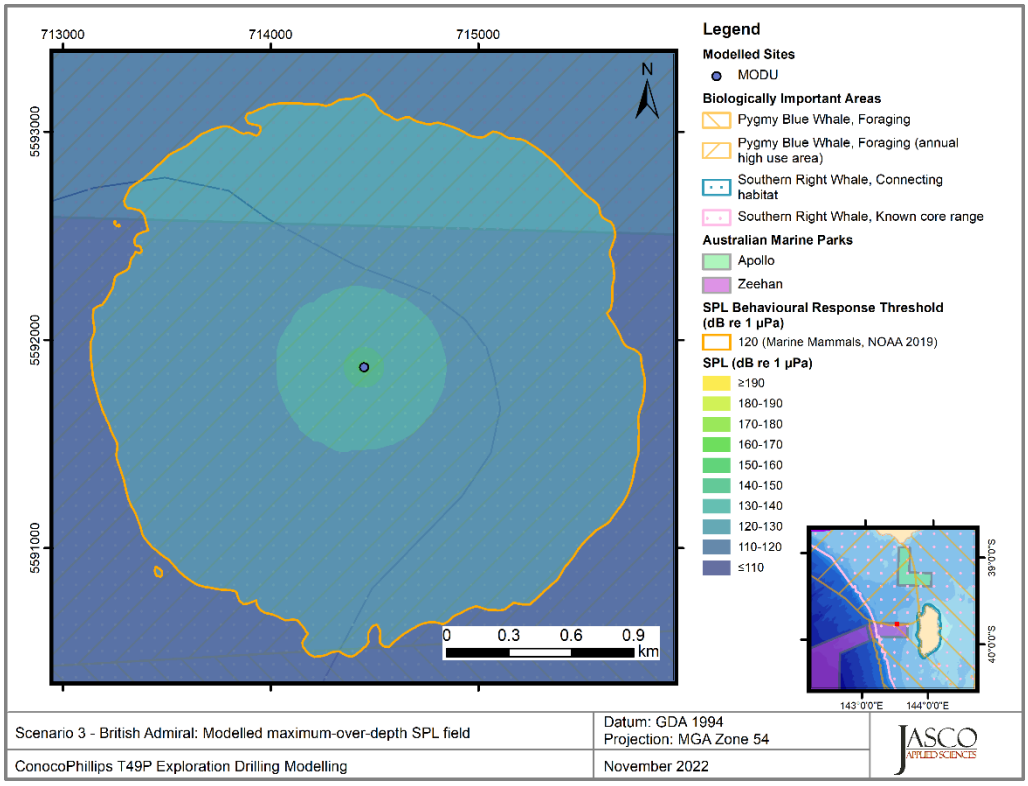


Figure 20. *Scenario 3*— T/49P *British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

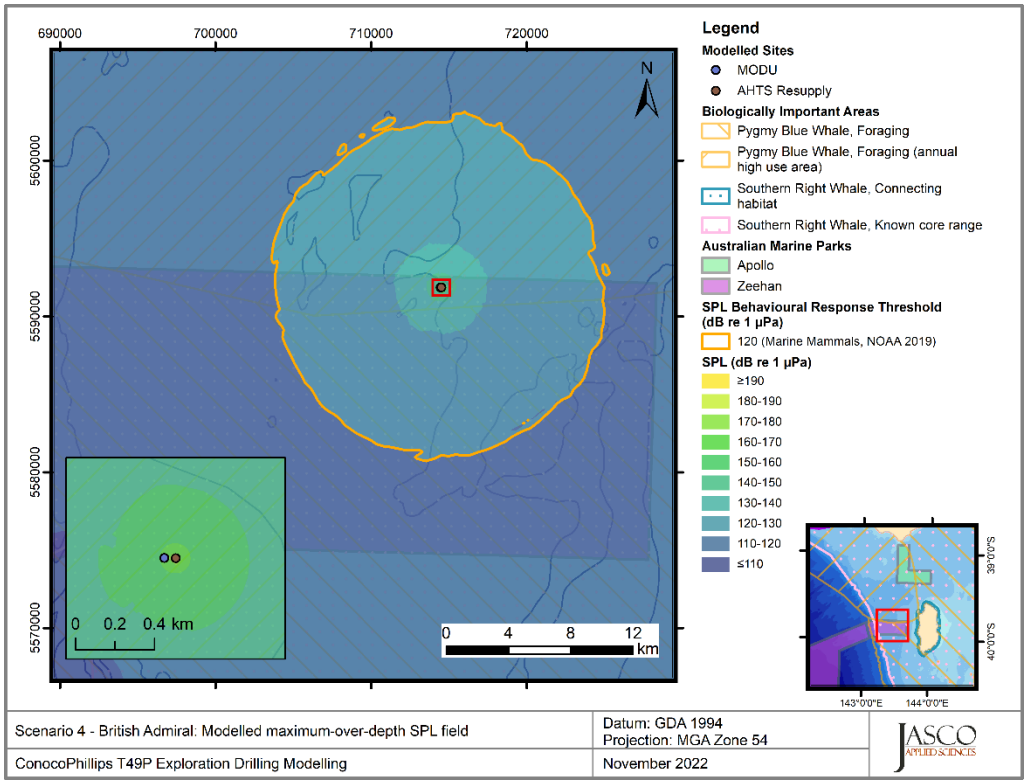


Figure 21. *Scenario 4*— T/49P *British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

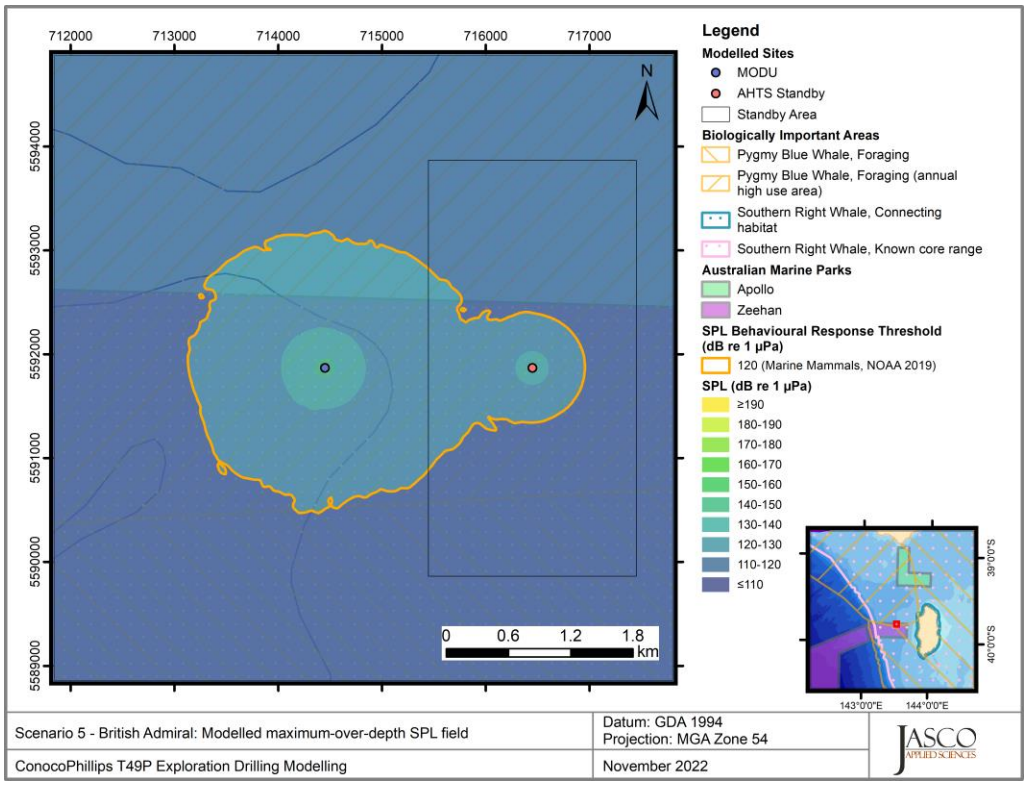


Figure 22. *Scenario 5*— T/49P *British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

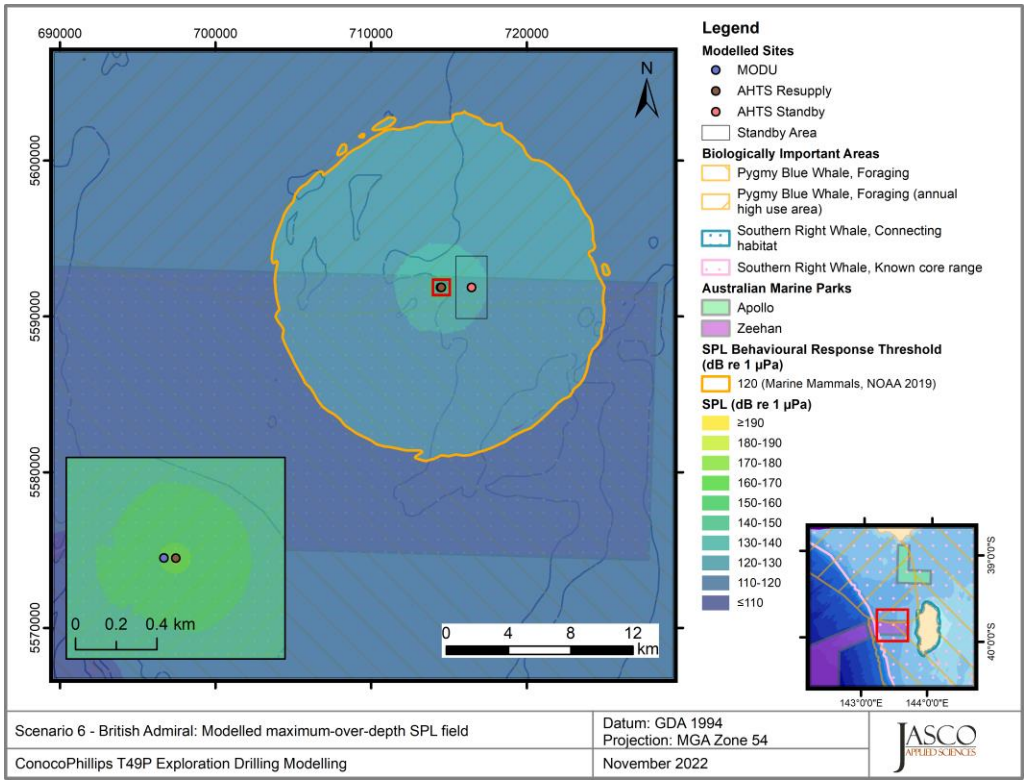


Figure 23. *Scenario 6*— T/49P *British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.2. *T/49P Flanagan*

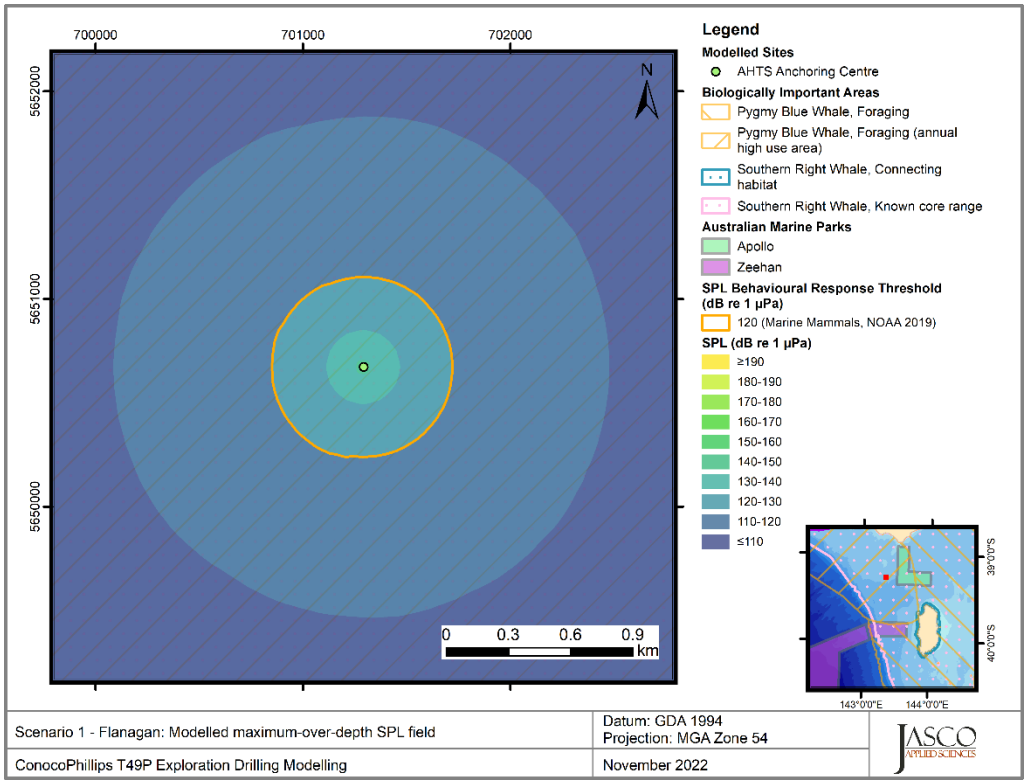


Figure 24. *Scenario 1*— T/49P *Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

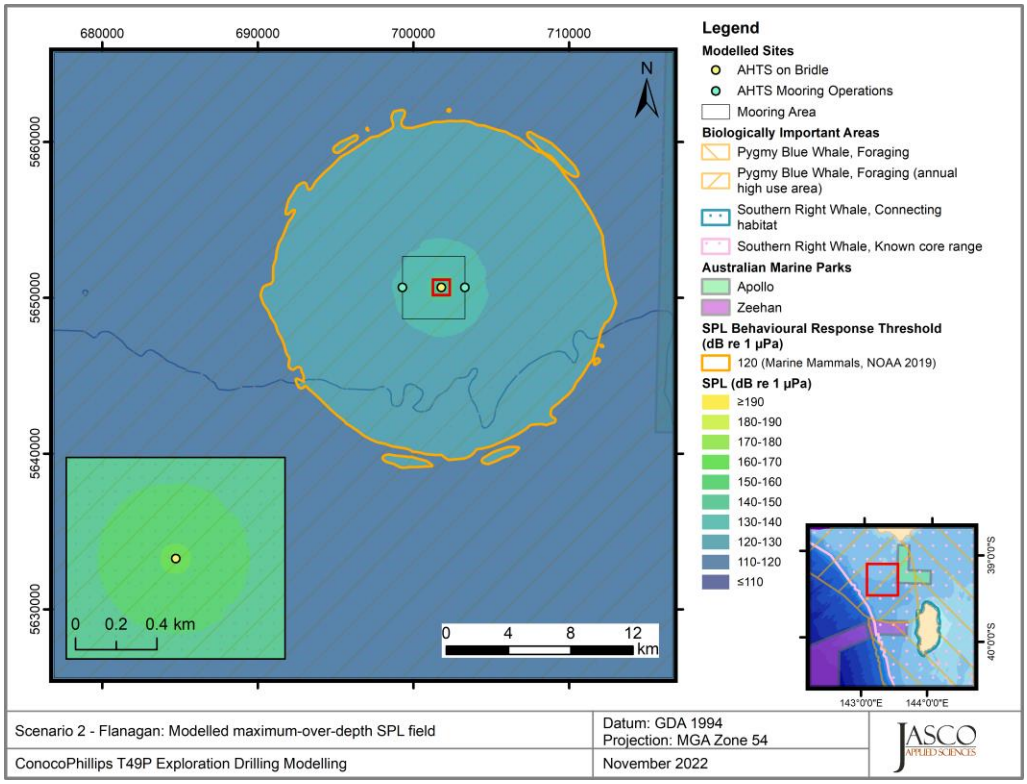


Figure 25. *Scenario 2*— T/49P *Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

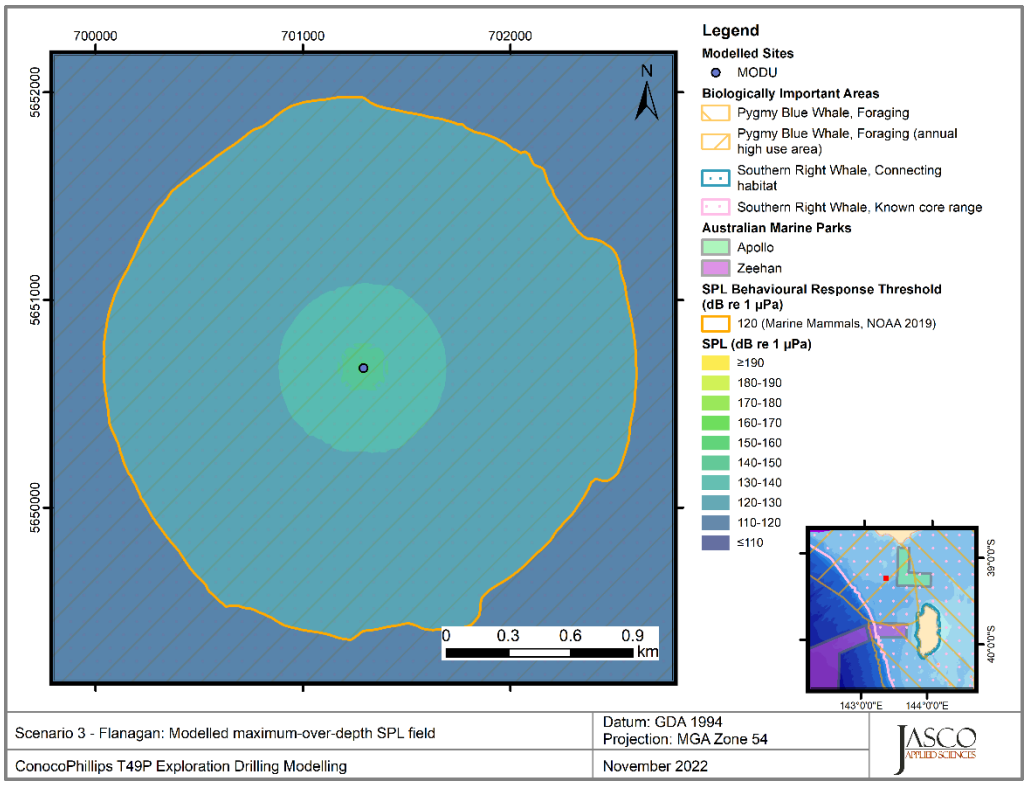


Figure 26. *Scenario 3*— T/49P *Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

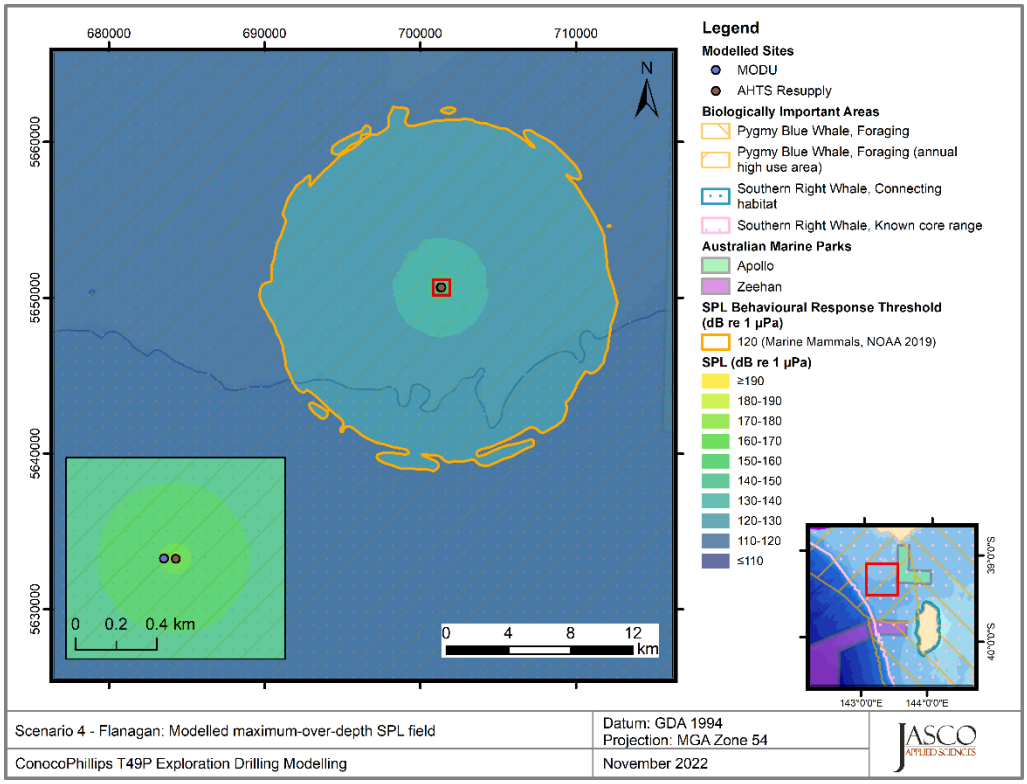


Figure 27. *Scenario 4*— T/49P *Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

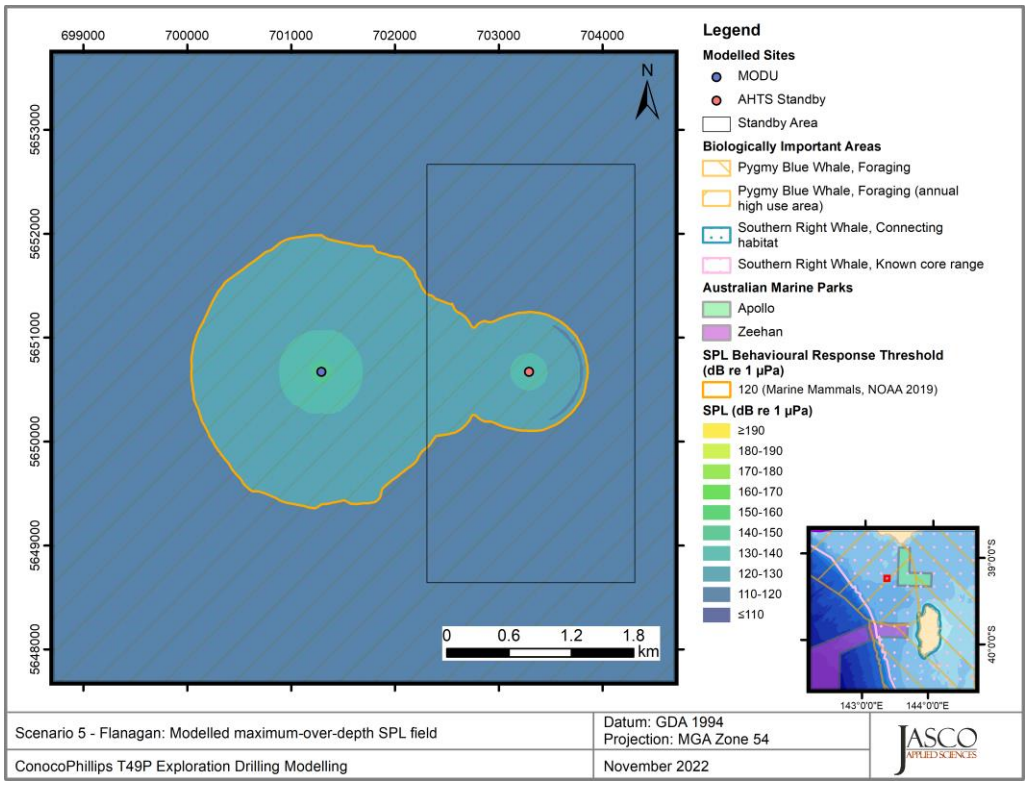


Figure 28. *Scenario 5*— T/49P *Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

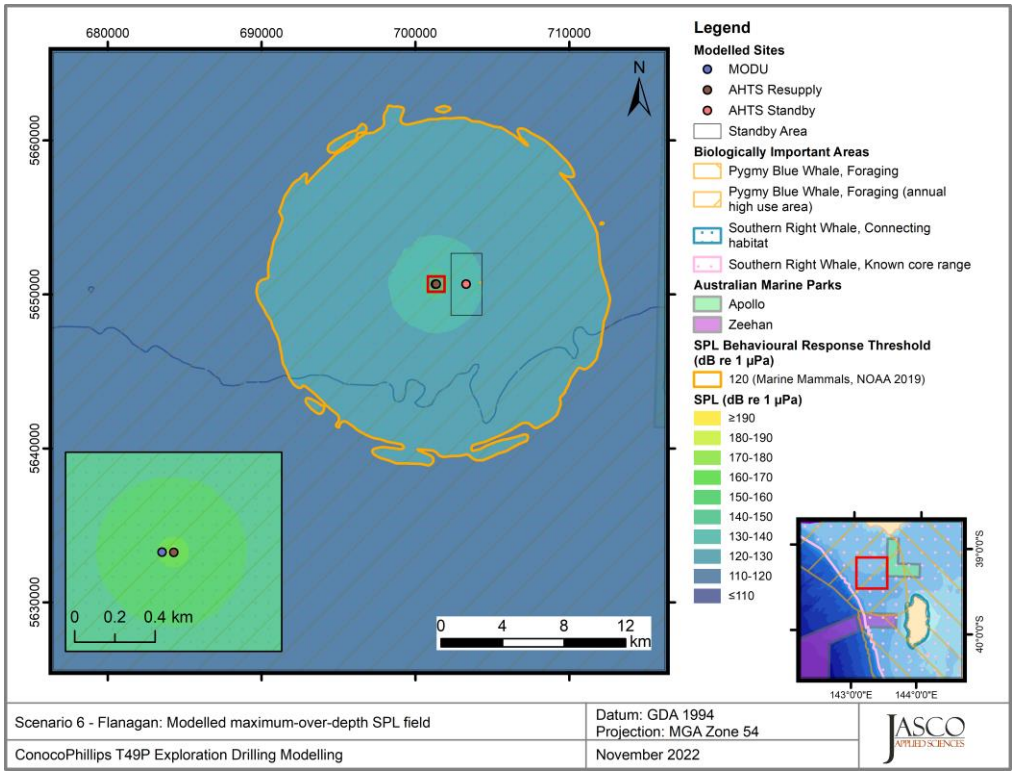


Figure 29. *Scenario 6*— T/49P *Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.3. *T/49P British Admiral West*

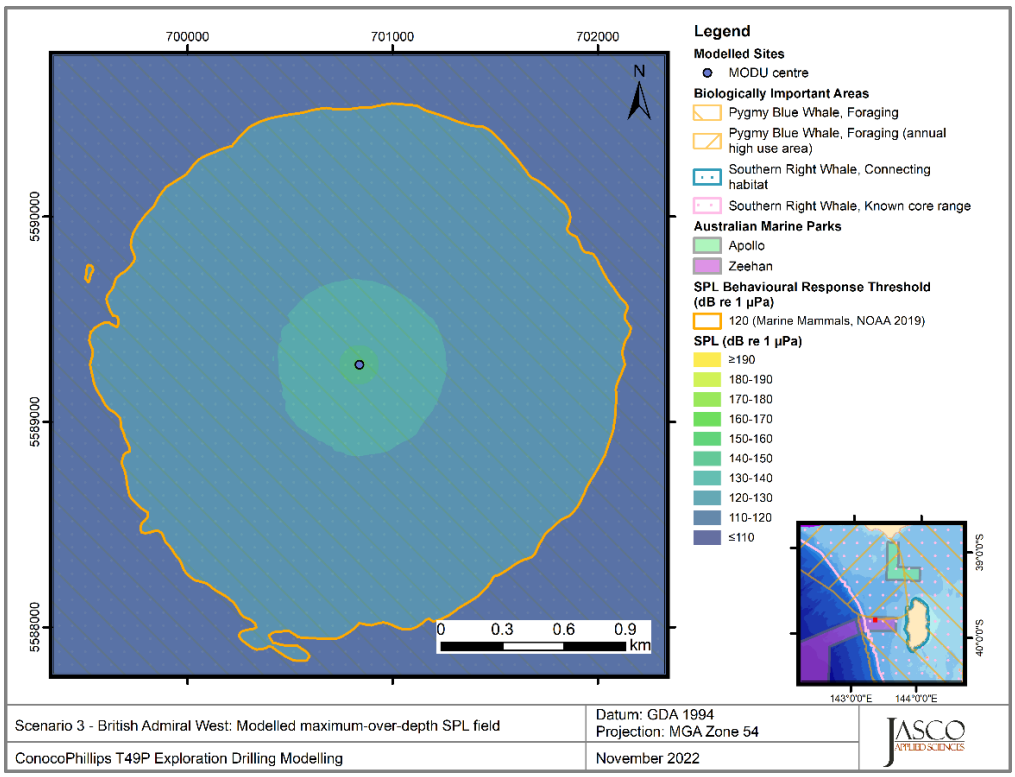


Figure 30. *Scenario 3*— T/49P *British Admiral West, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

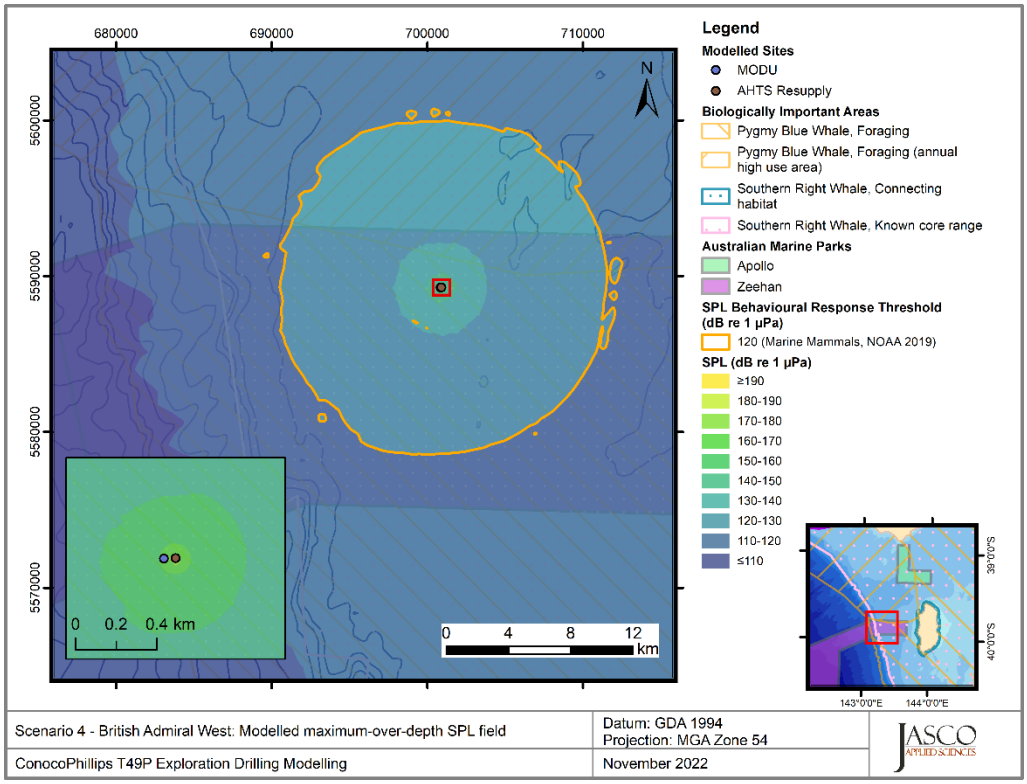


Figure 31. *Scenario 4*— T/49P *British Admiral West, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.4. VIC/P79 Merope

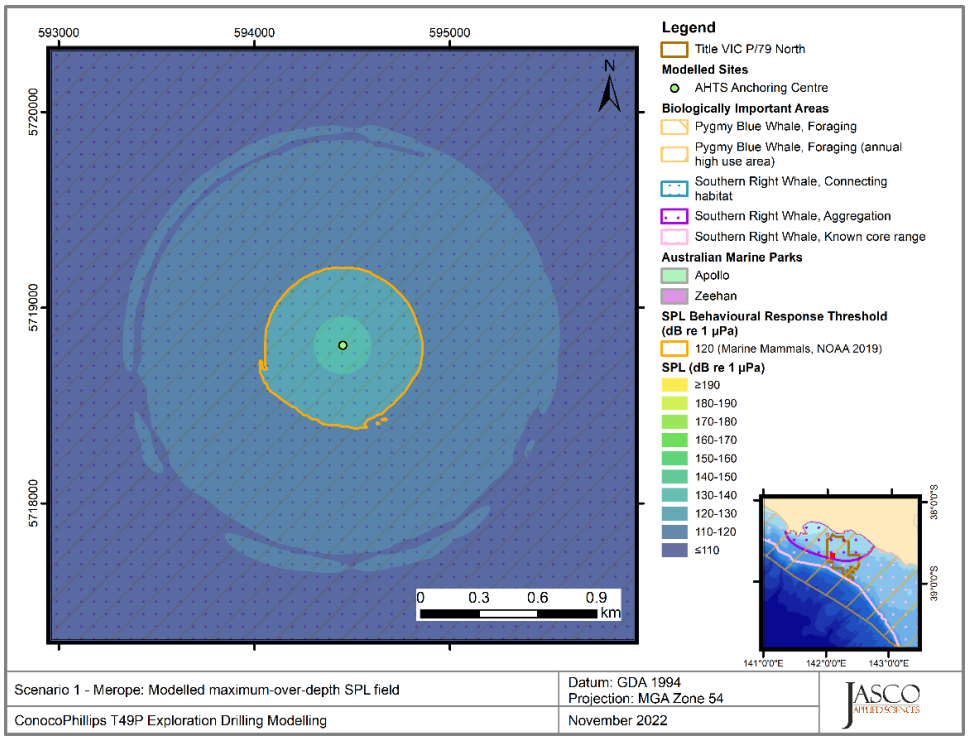


Figure 32. *Scenario 1, Prelay* — VIC/P79 *Merope, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

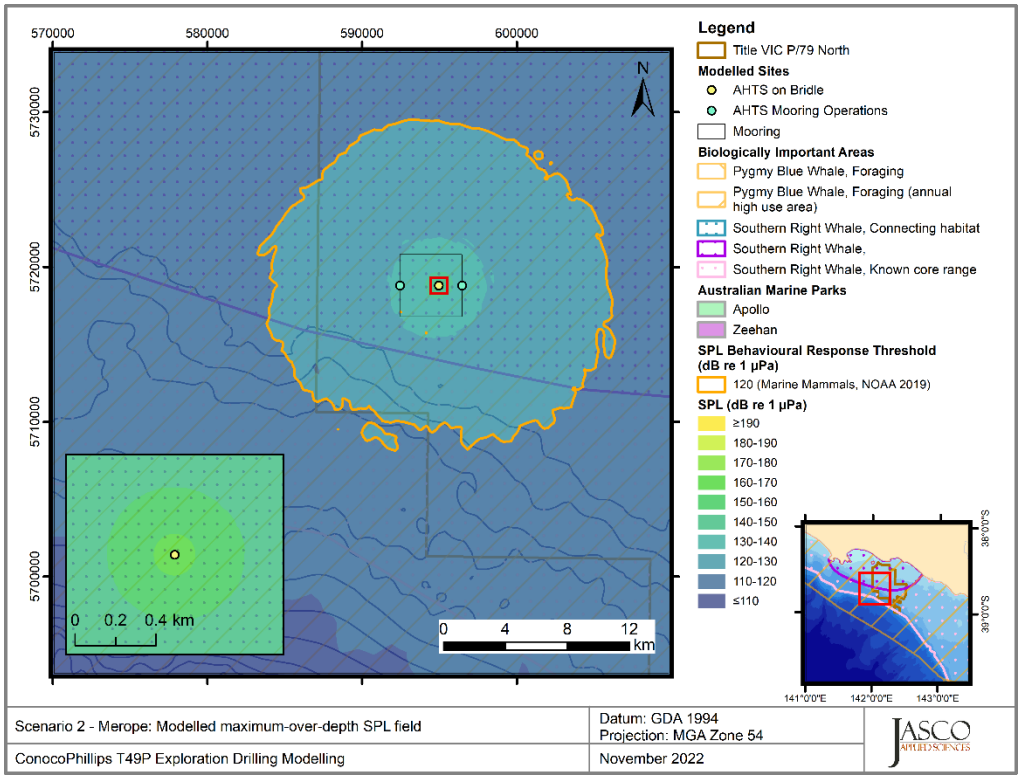


Figure 33. *Scenario 2, Mooring* — VIC/P79 *Merope, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

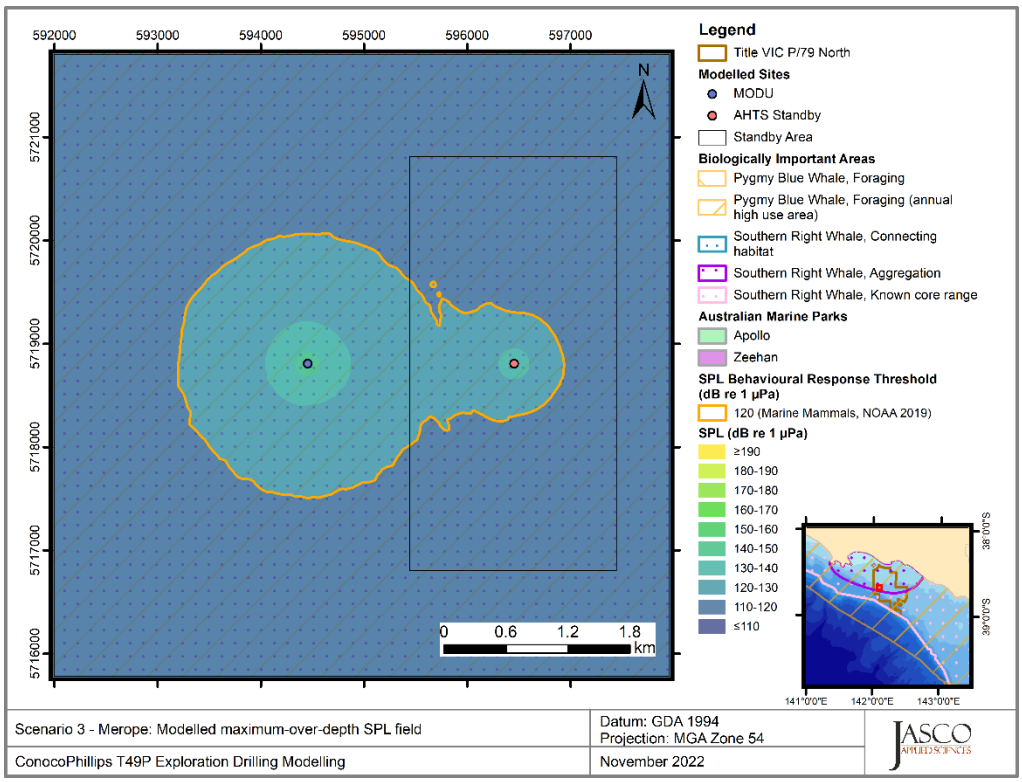


Figure 34. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Merope, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

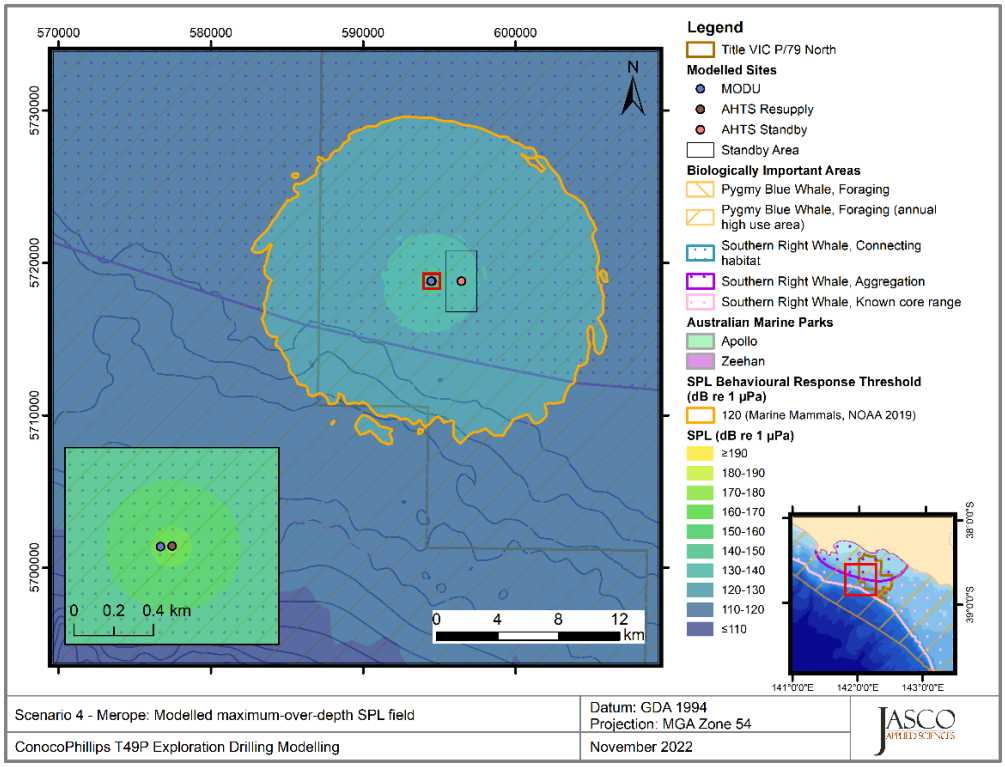


Figure 35. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Merope, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.5. VIC/P79 Julpha

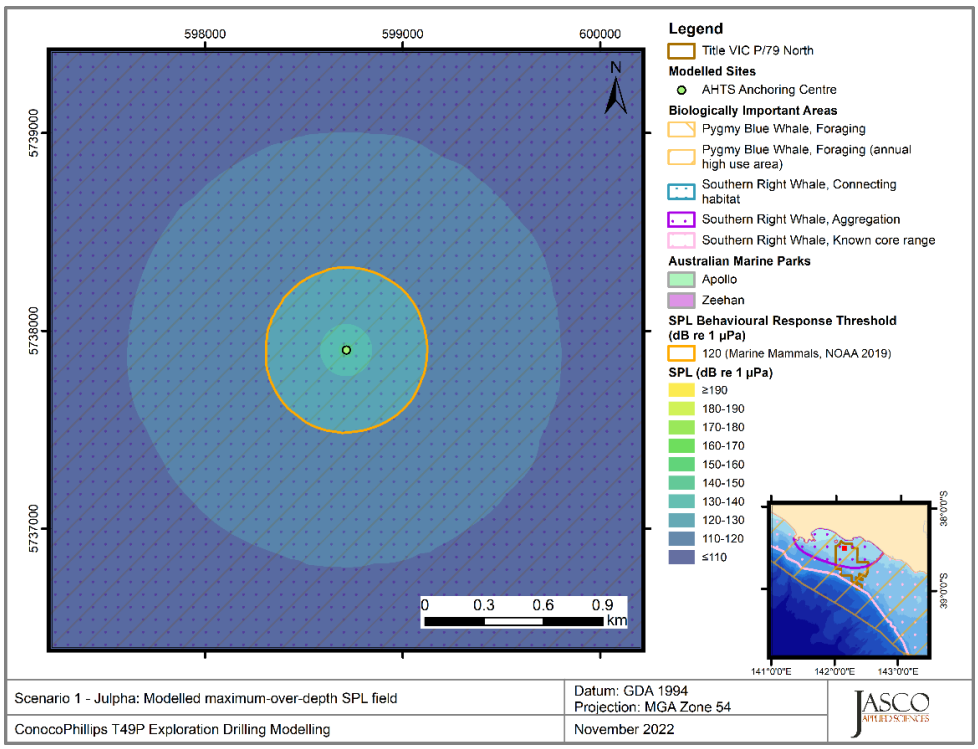


Figure 36. *Scenario 1, Prelay* — VIC/P79 *Julpha, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

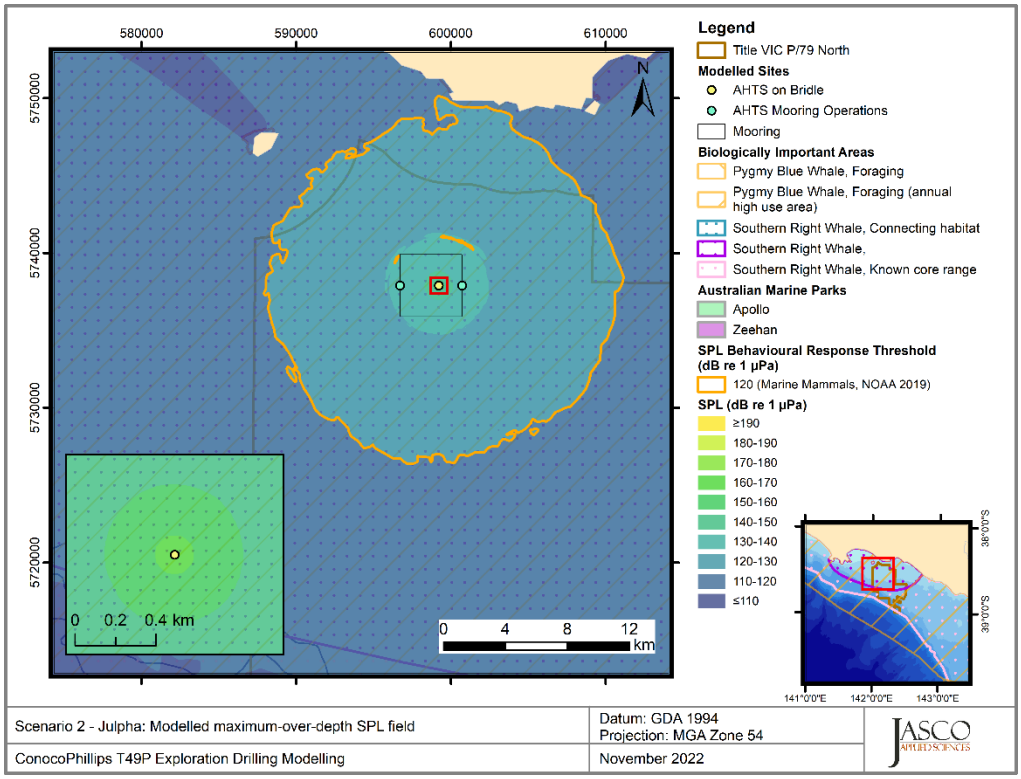


Figure 37. *Scenario 2, Mooring* — VIC/P79 *Julpha, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

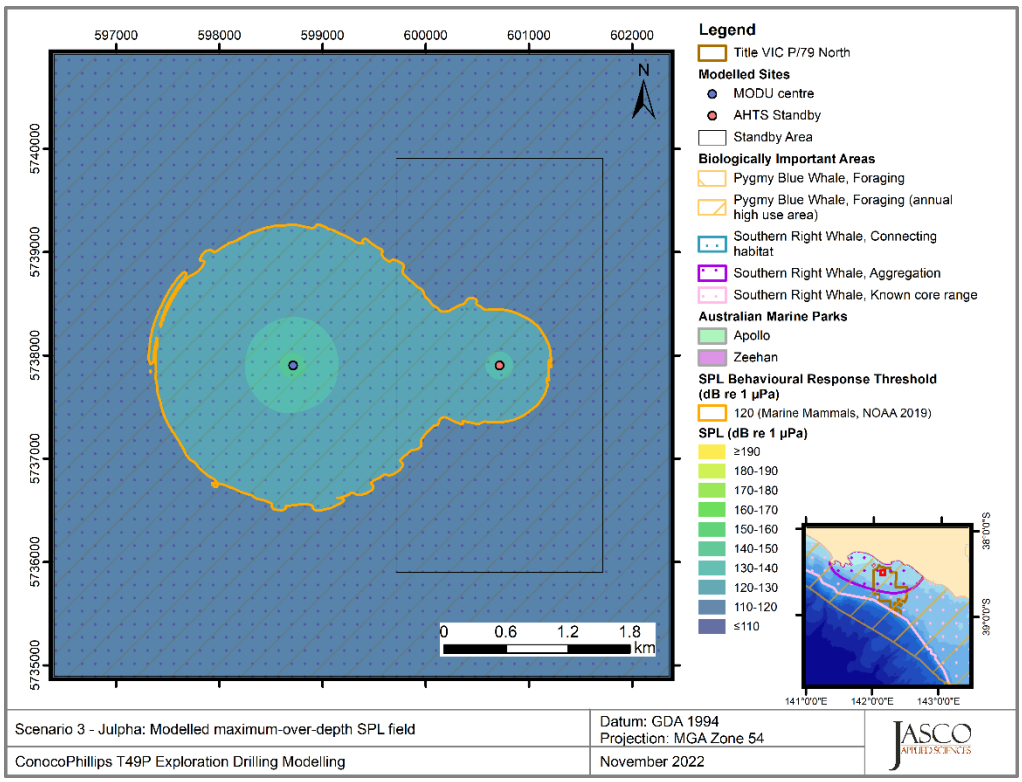


Figure 38. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Julpha, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

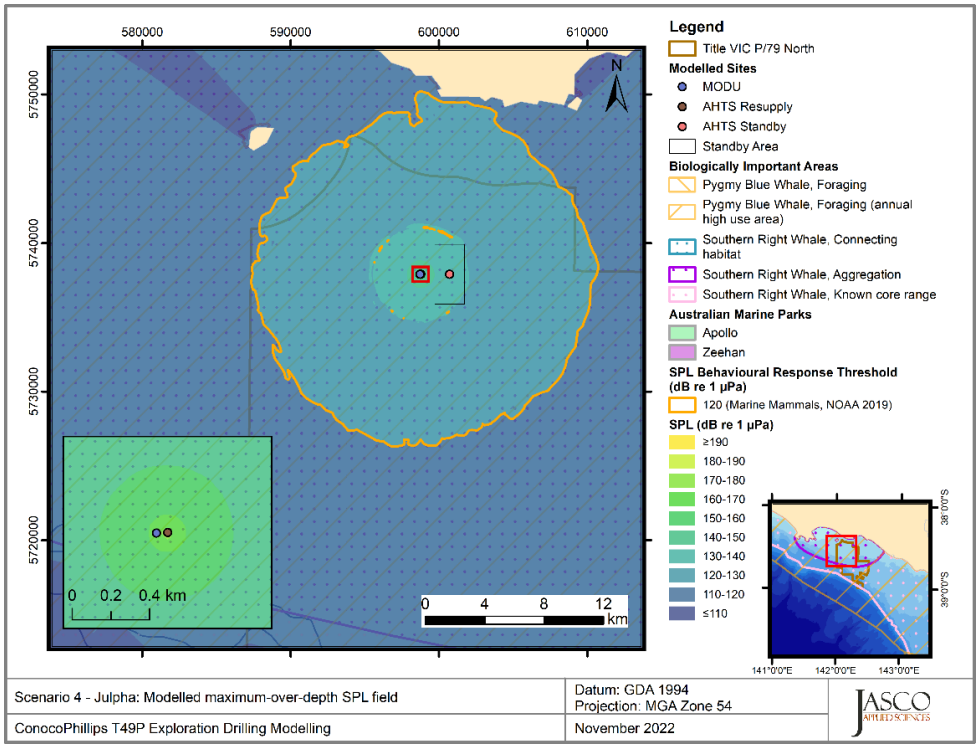


Figure 39. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Julpha, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.6. VIC/P79 Essington

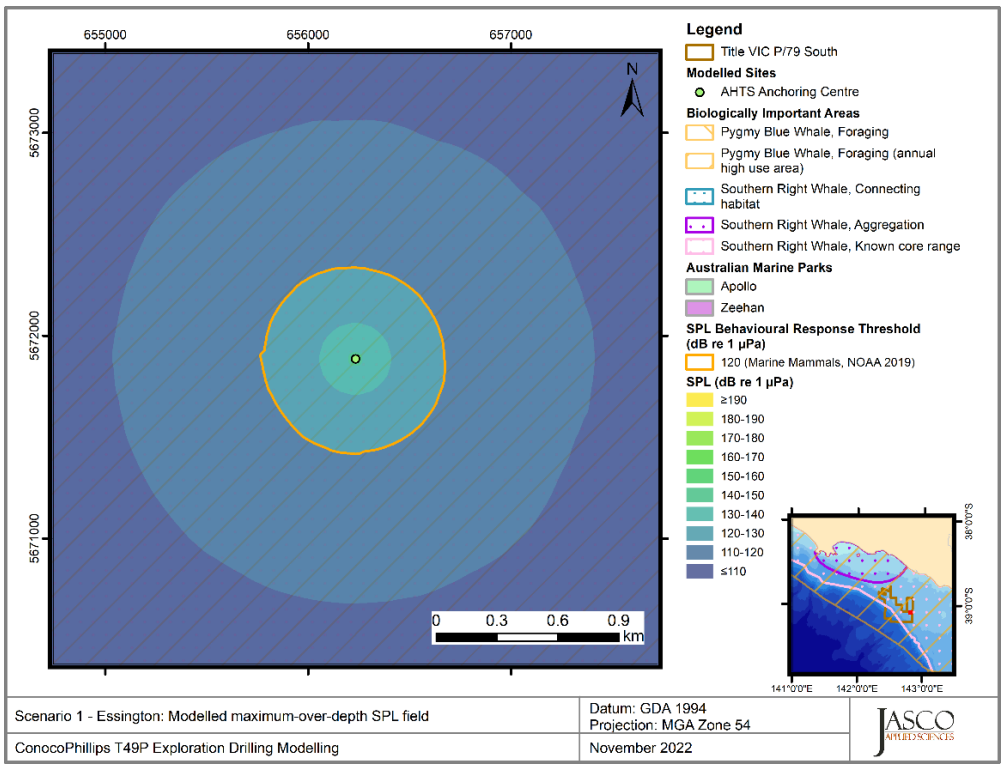


Figure 40. *Scenario 1, Prelay* — VIC/P79 *Essington, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

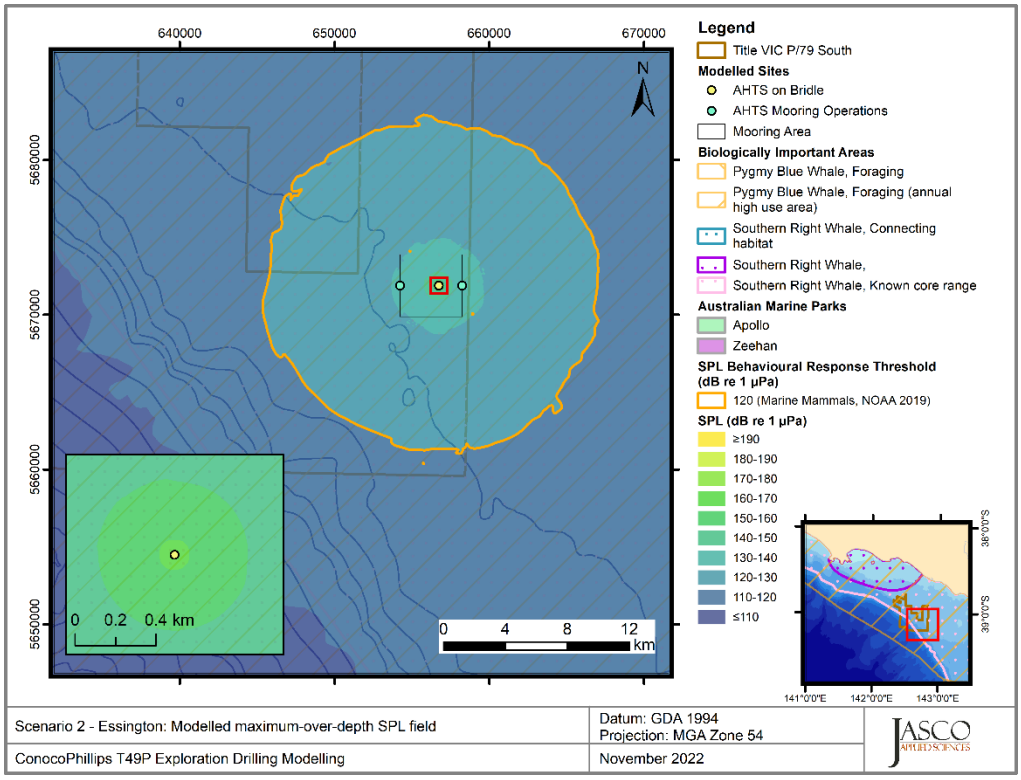


Figure 41. *Scenario 2, Mooring* — VIC/P79 *Essington, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

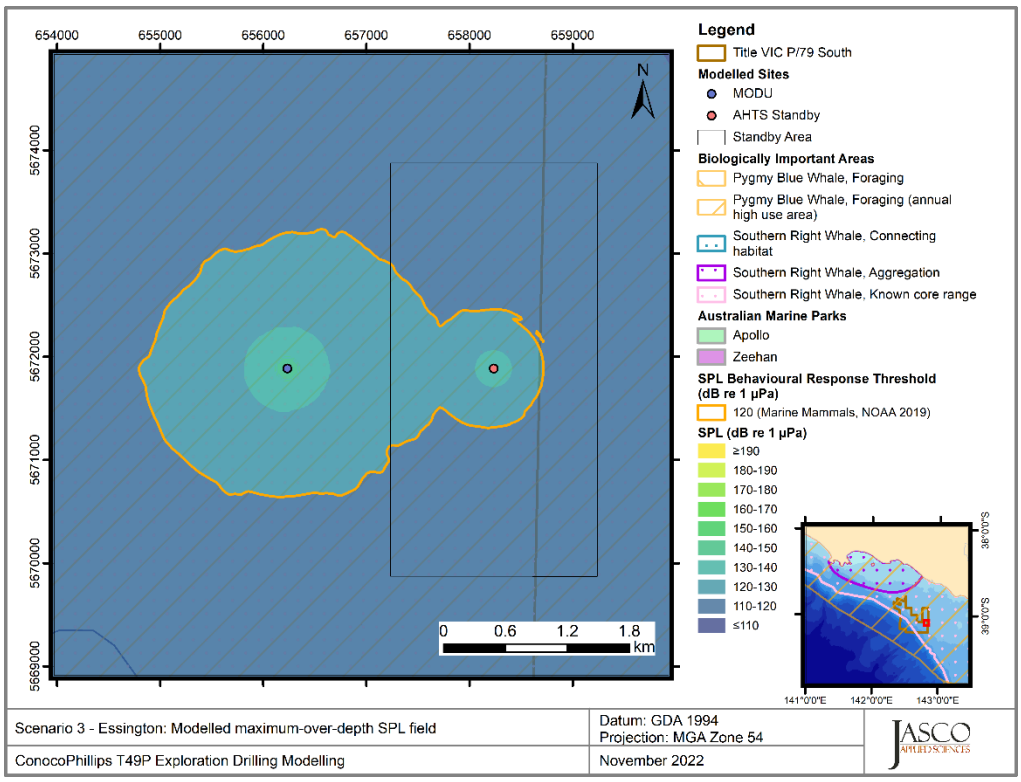


Figure 42. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Essington, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

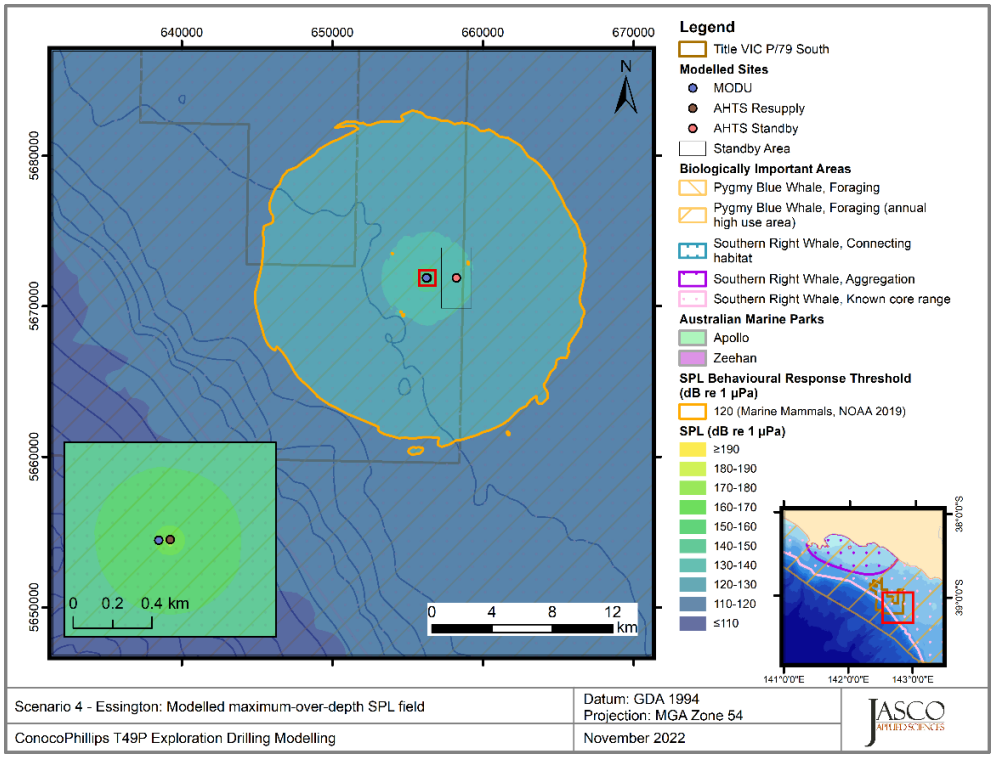


Figure 43. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Essington, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.7. VIC/P79 Garfield

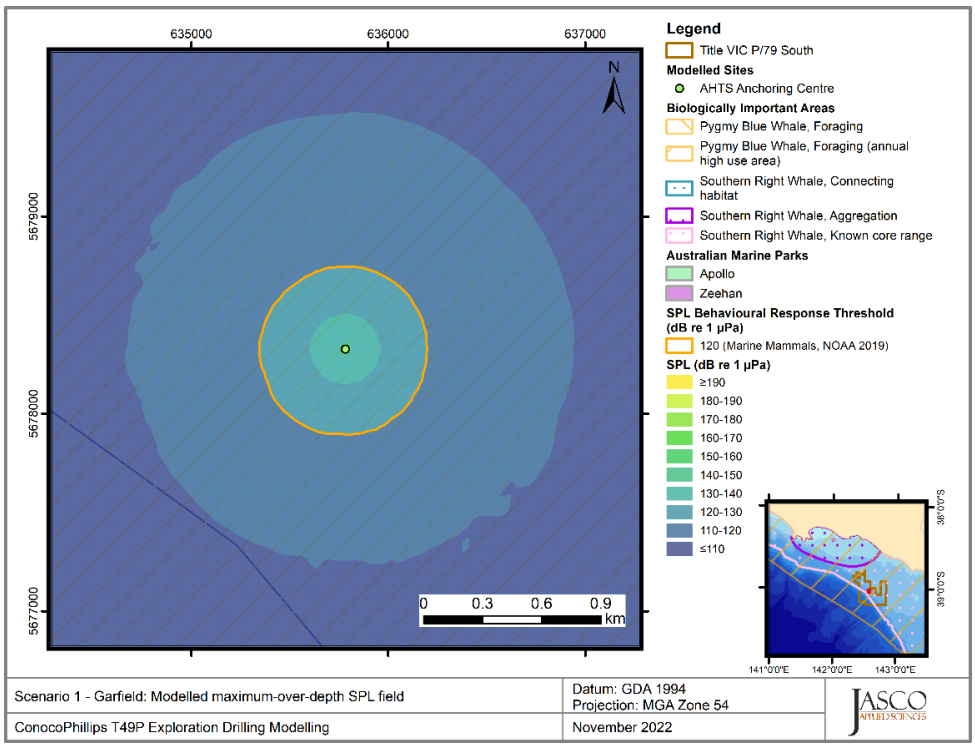


Figure 44. *Scenario 1, Prelay* — VIC/P79 *Garfield, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

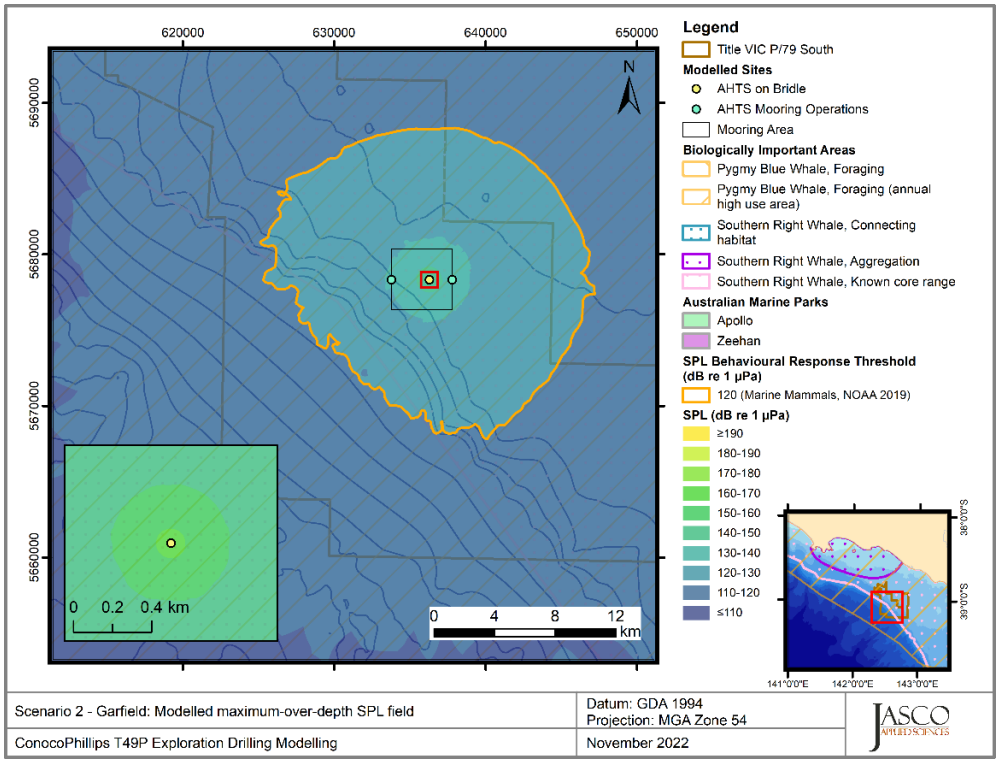


Figure 45. *Scenario 2, Mooring* — VIC/P79 *Garfield, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

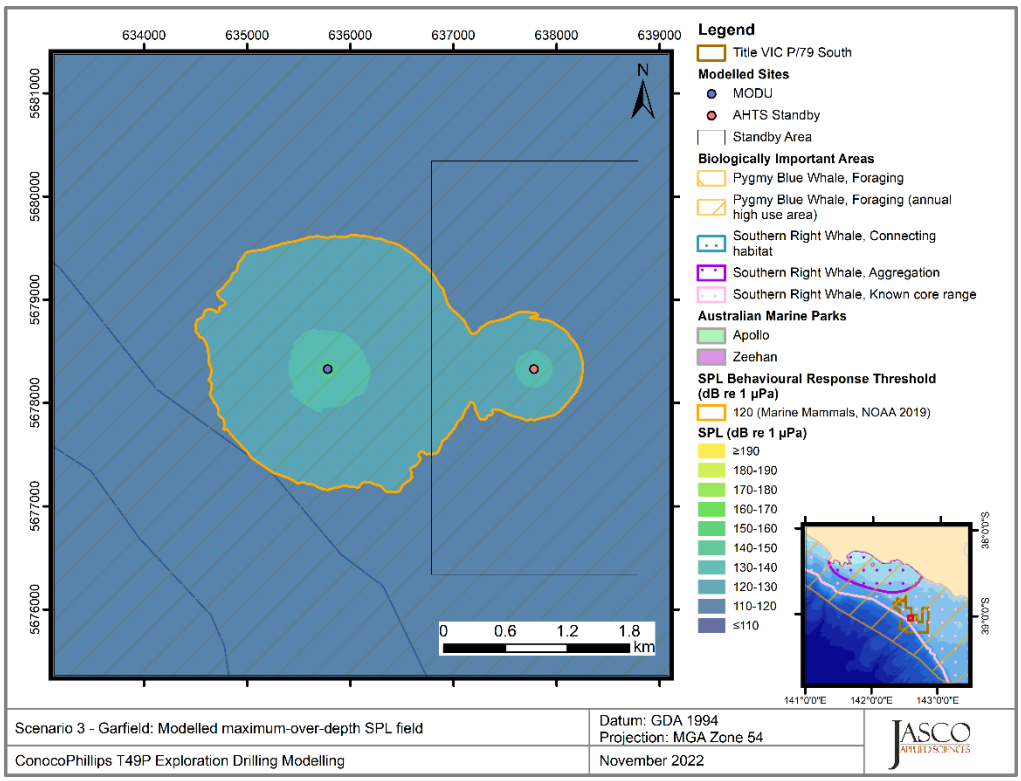


Figure 46. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Garfield, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

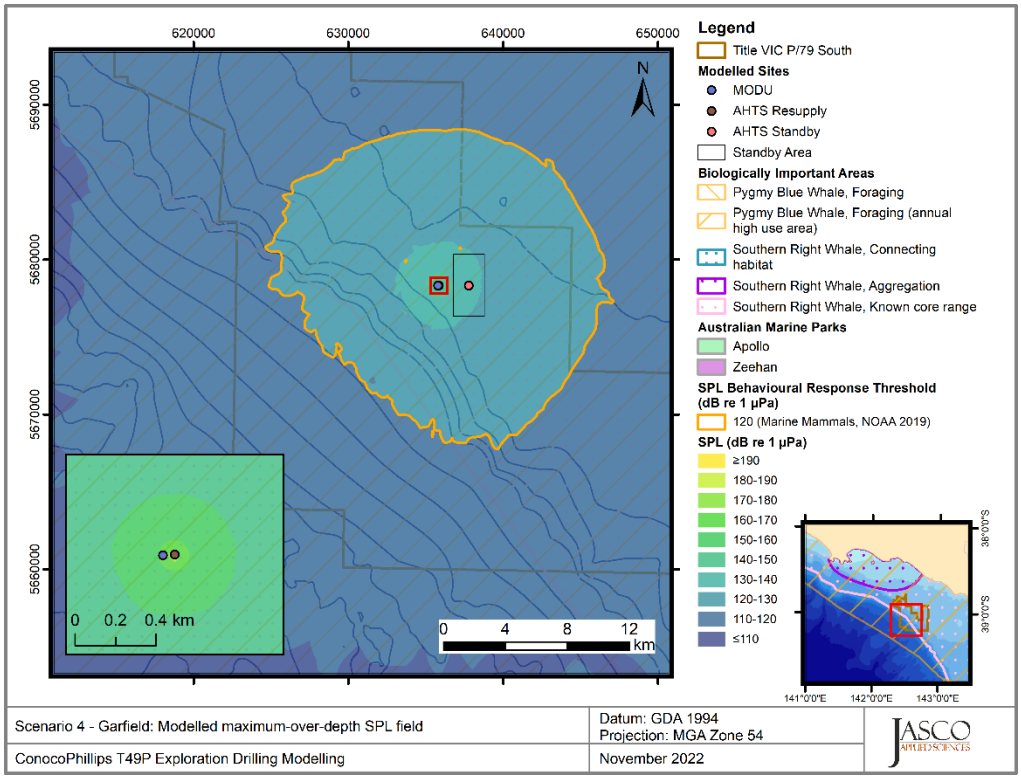


Figure 47. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Garfield, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.1.8. VIC/P79 Garfield West

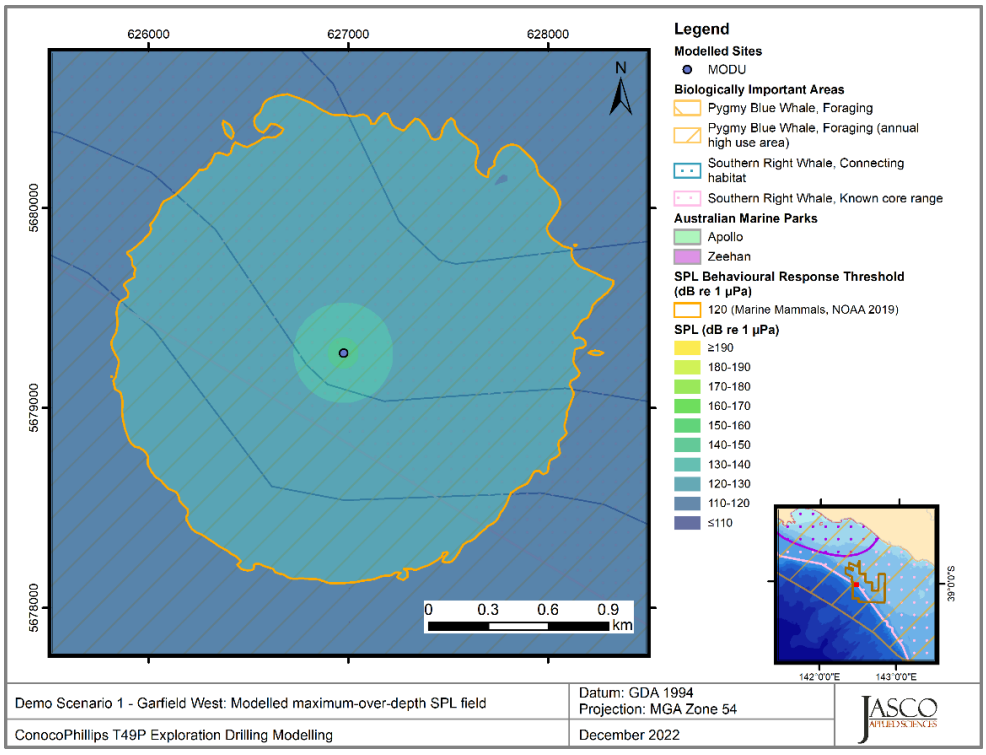


Figure 48. *Scenario 3, Drilling* — VIC/P79 *Garfield West, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

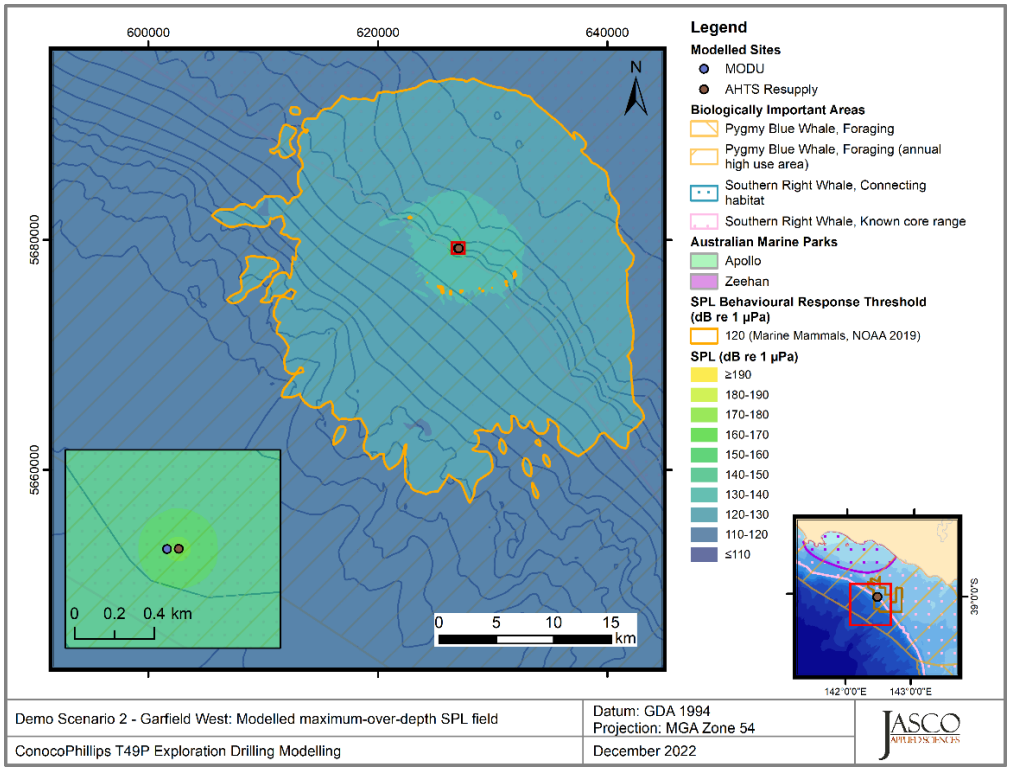


Figure 49. *Scenario 4, Drilling and resupply — Garfield West, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleths for behavioural response threshold for marine mammals.

4.1.2.2. Accumulated 24 h Sound Fields

The figures below present the 24 h accumulative Sound Exposure Level maps for the operation scenarios. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.1.1 for distances.

4.1.2.2.1. *T/49P British Admiral*

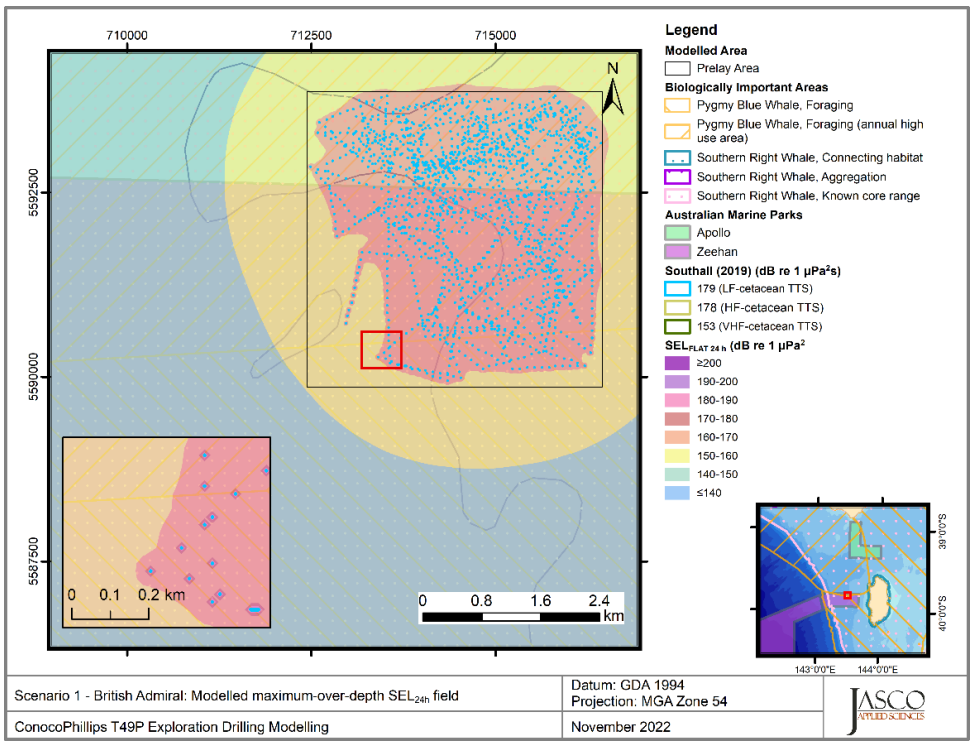


Figure 50. *Scenario 1— T/49P British Admiral, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

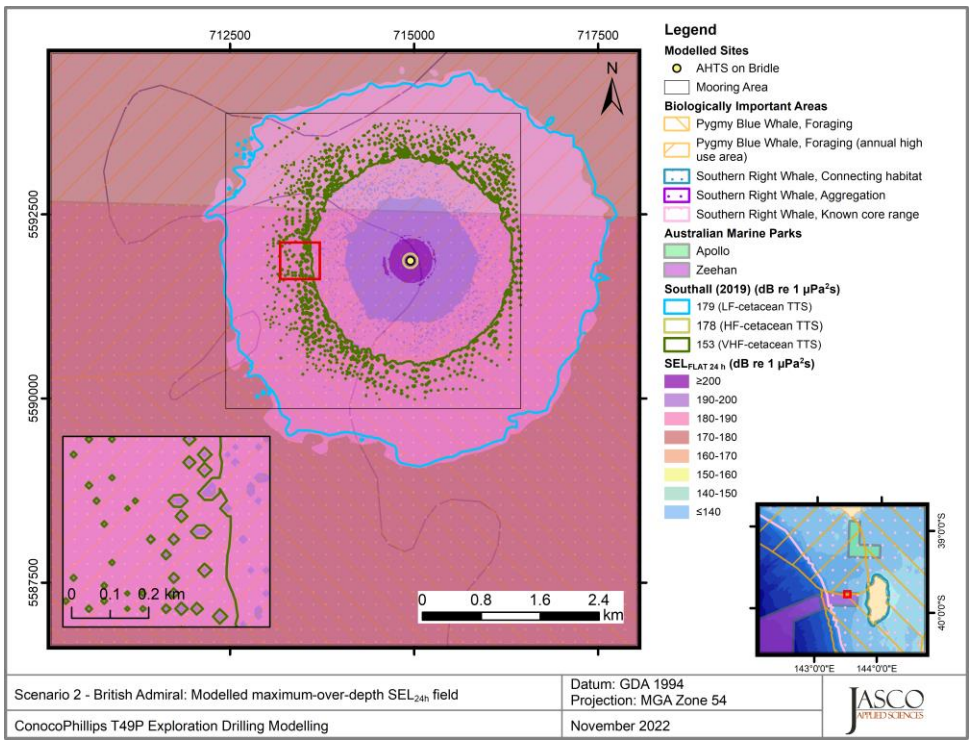


Figure 51. *Scenario 2— T/49P British Admiral, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

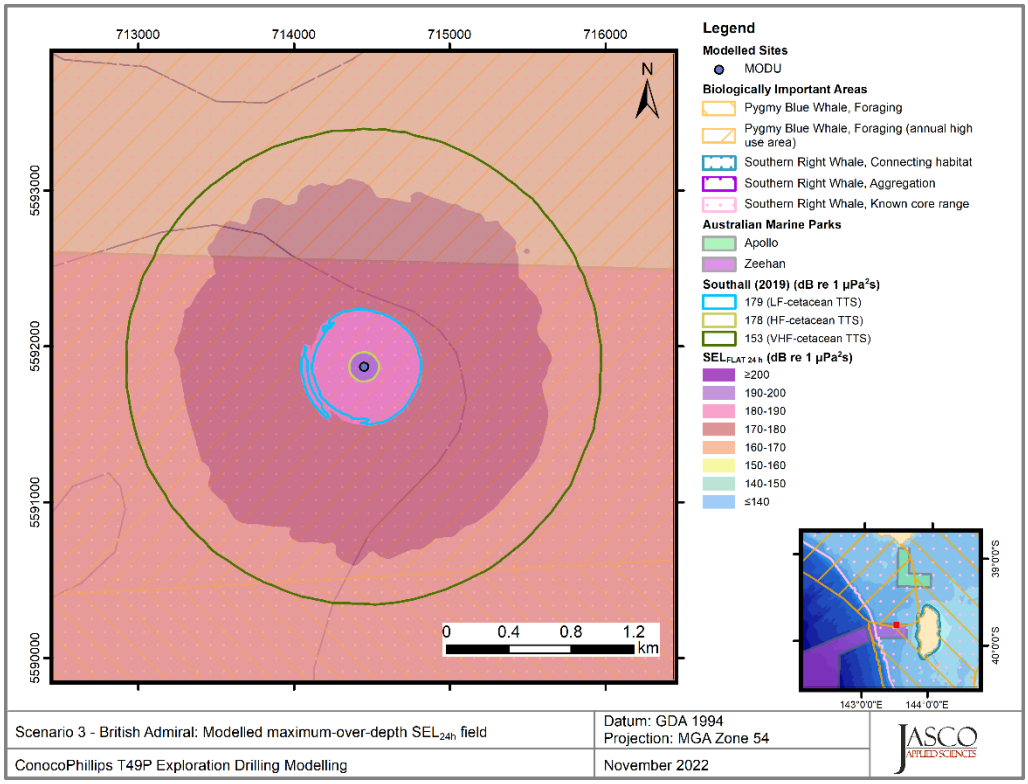


Figure 52. *Scenario 3— T/49P British Admiral, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

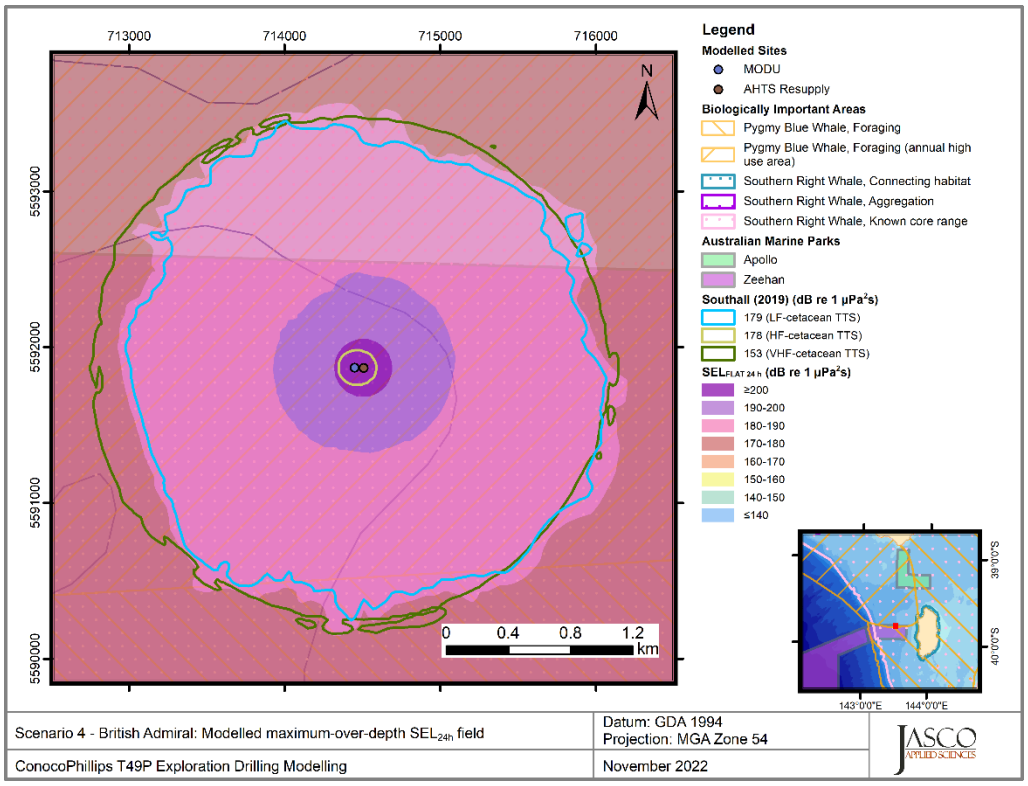


Figure 53. *Scenario 4— T/49P British Admiral, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

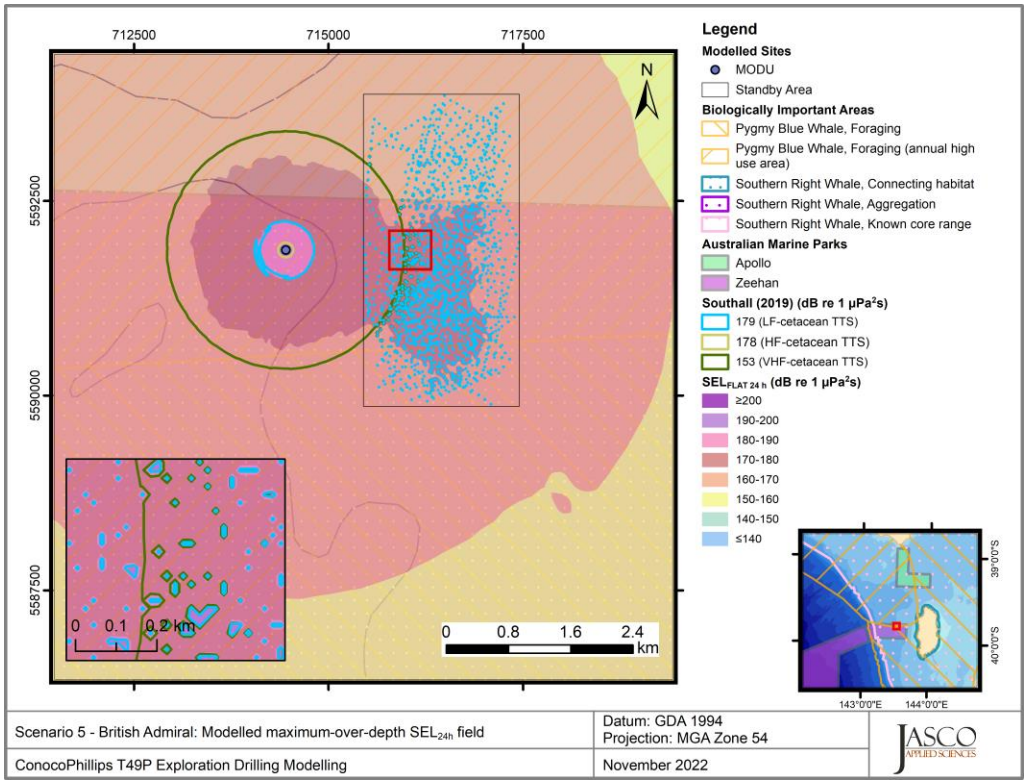


Figure 54. *Scenario 5— T/49P British Admiral, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

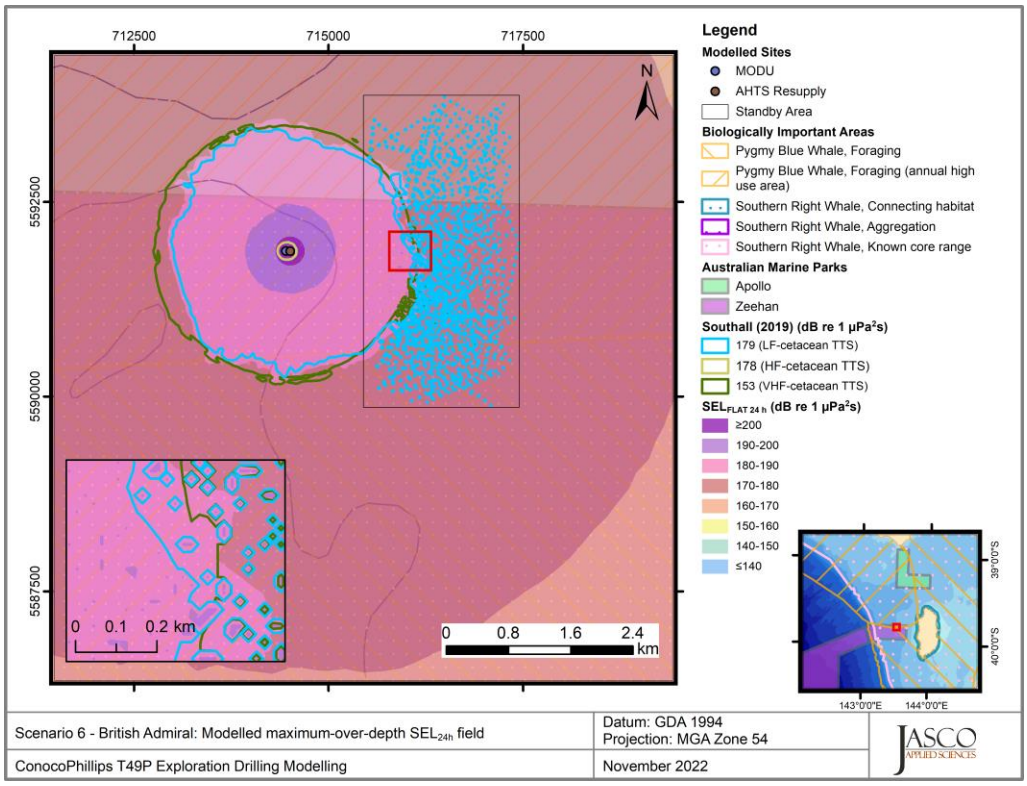


Figure 55. *Scenario 6— T/49P British Admiral, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

4.1.2.2.2. *T/49P Flanagan*

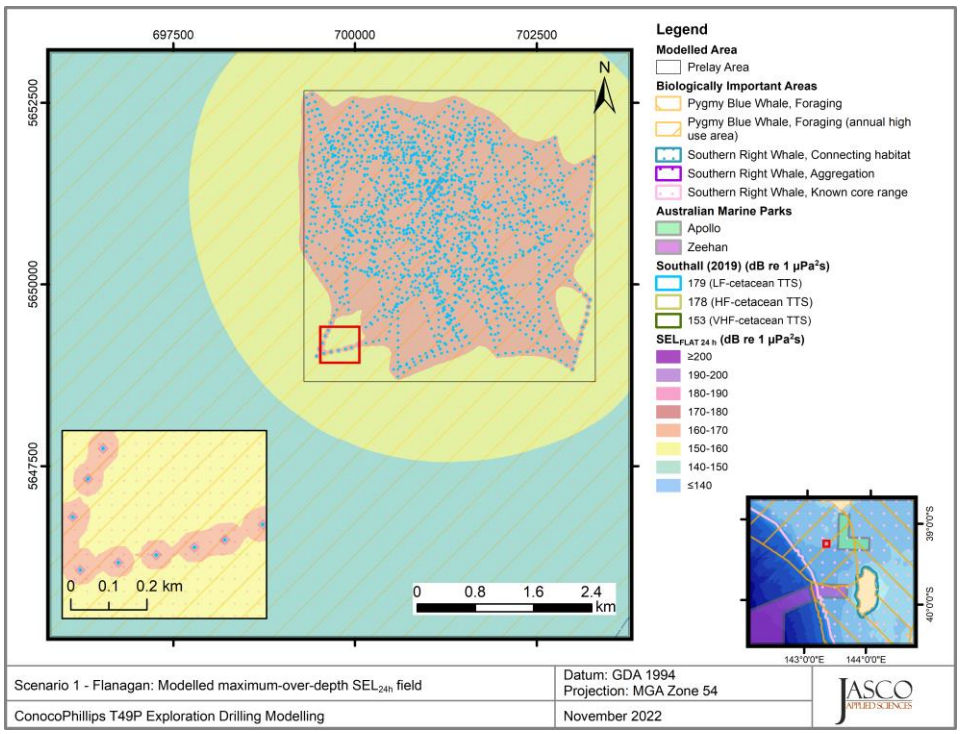


Figure 56. *Scenario 1— T/49P Flanagan, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

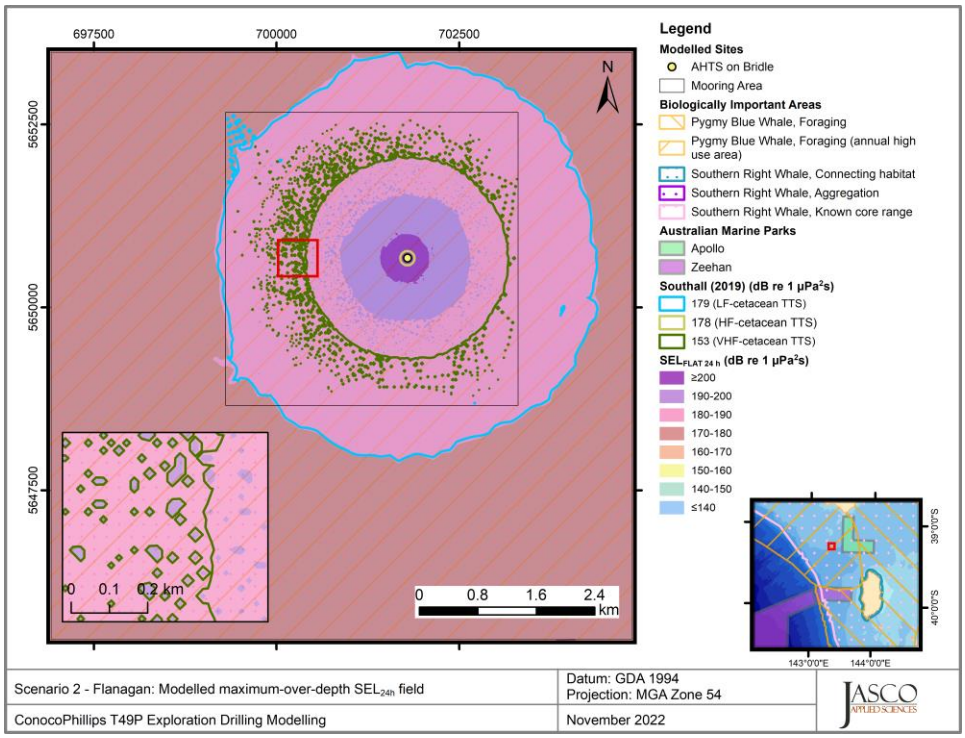


Figure 57. *Scenario 2— T/49P Flanagan, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

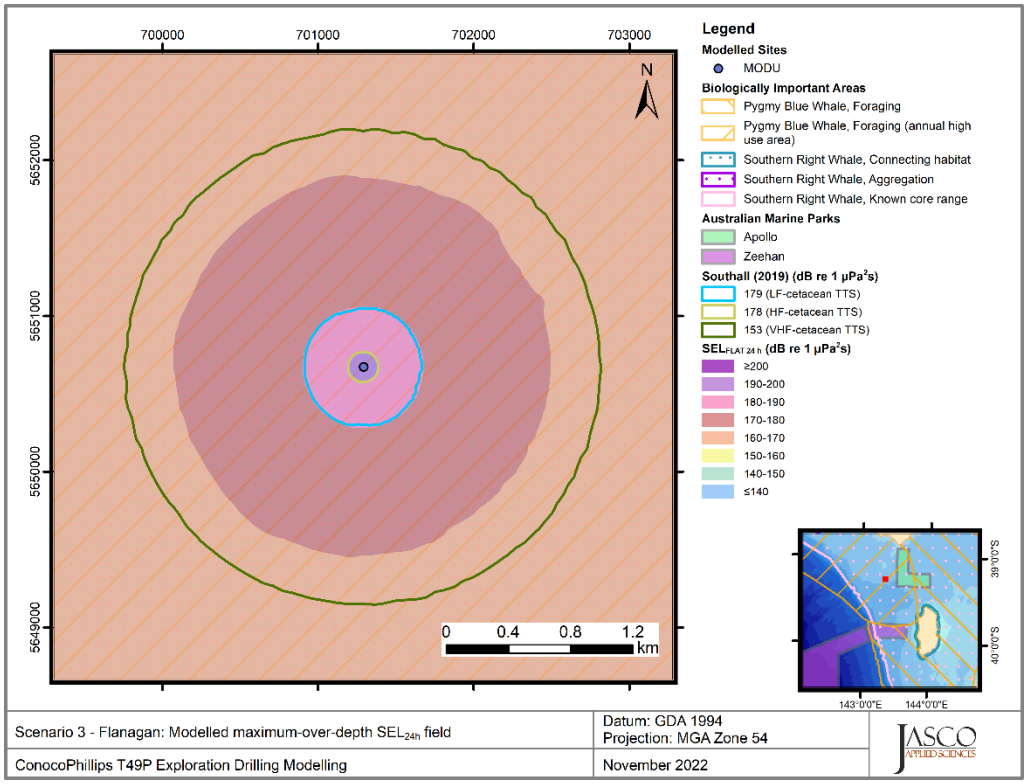


Figure 58. *Scenario 3— T/49P Flanagan, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

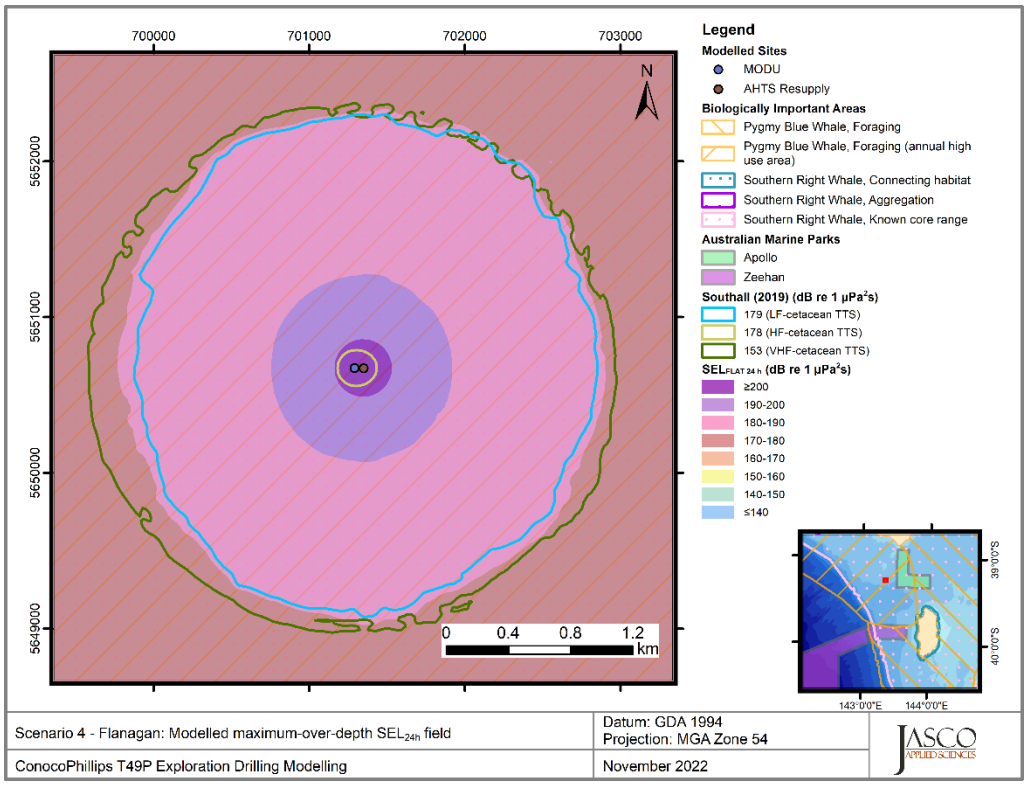


Figure 59. *Scenario 4— T/49P Flanagan, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

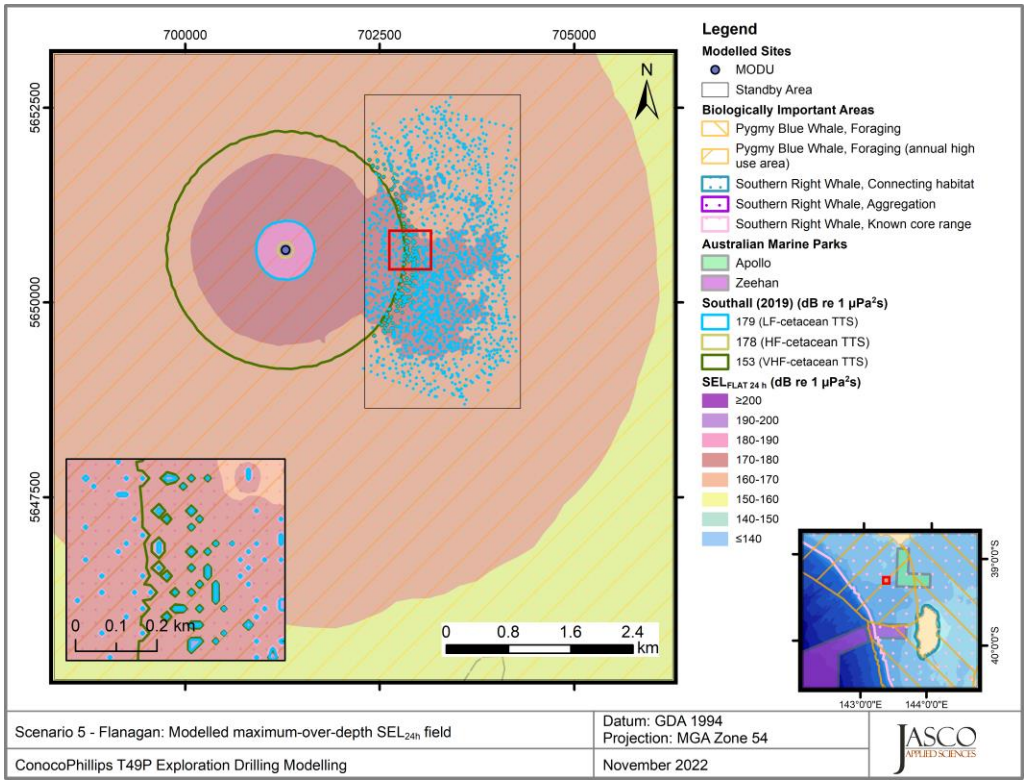


Figure 60. *Scenario 5— T/49P Flanagan, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

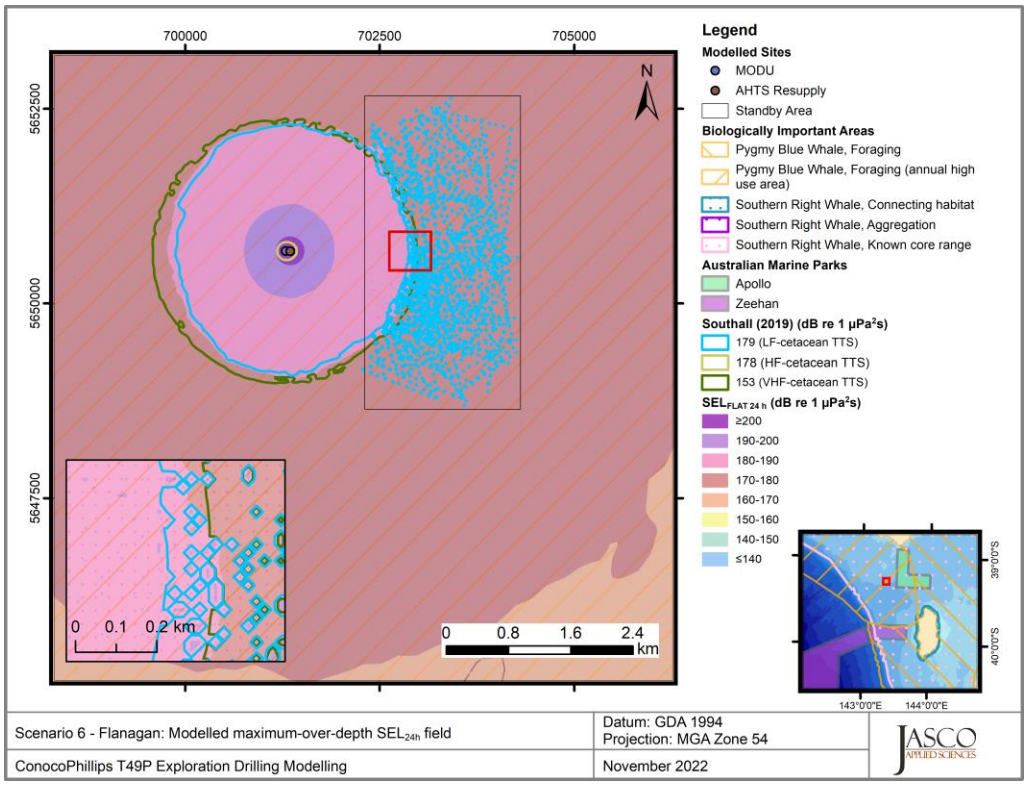


Figure 61. *Scenario 6— T/49P Flanagan, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

4.1.2.2.3. *T/49P British Admiral West*

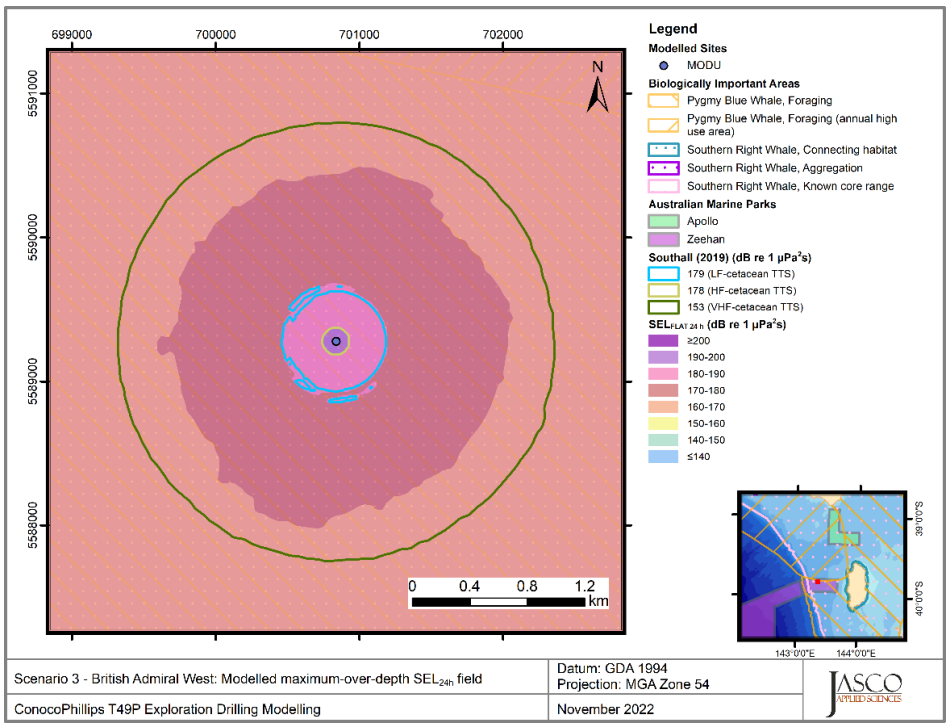


Figure 62. *Scenario 3— T/49P British Admiral West, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

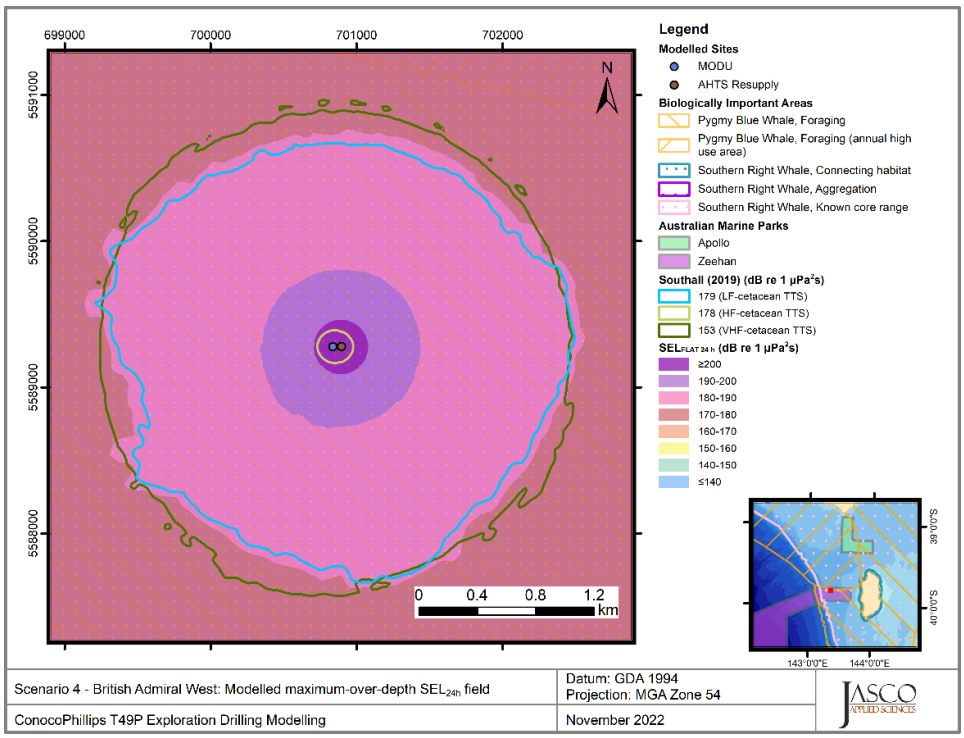


Figure 63. *Scenario 4— T/49P British Admiral West, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h field and isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some for TTS were either not reached or too short to be displayed on a map.

4.1.2.2.4. *VIC/P79 Merope*

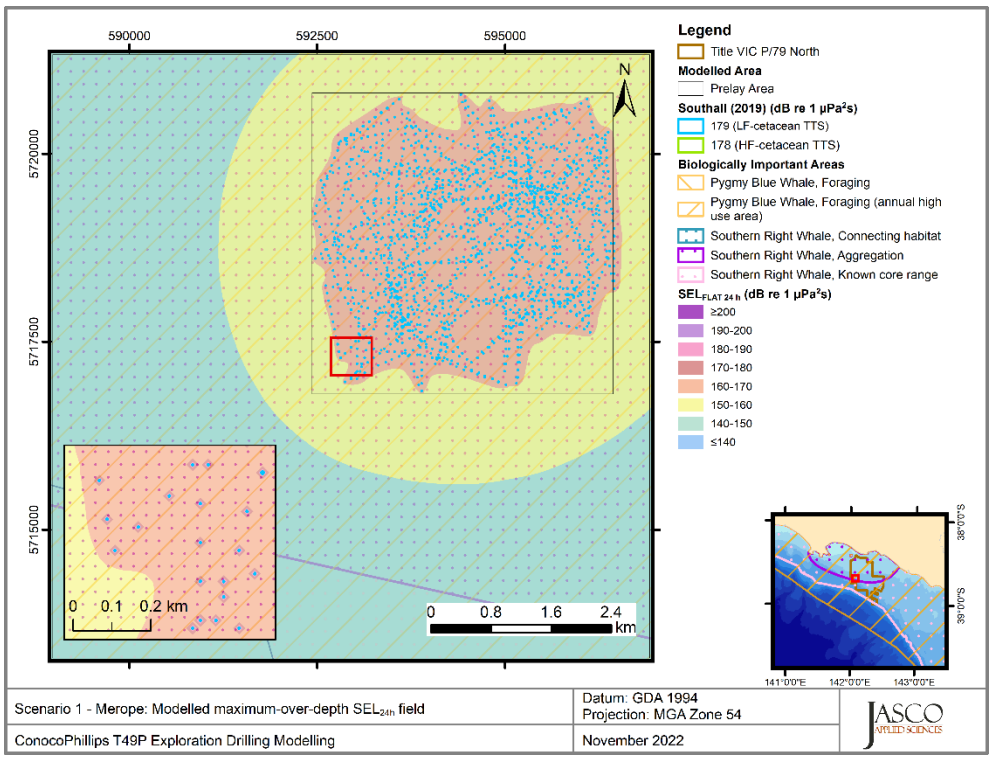


Figure 64. *Scenario 1, Prelay* — VIC/P79 *Merope, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds.

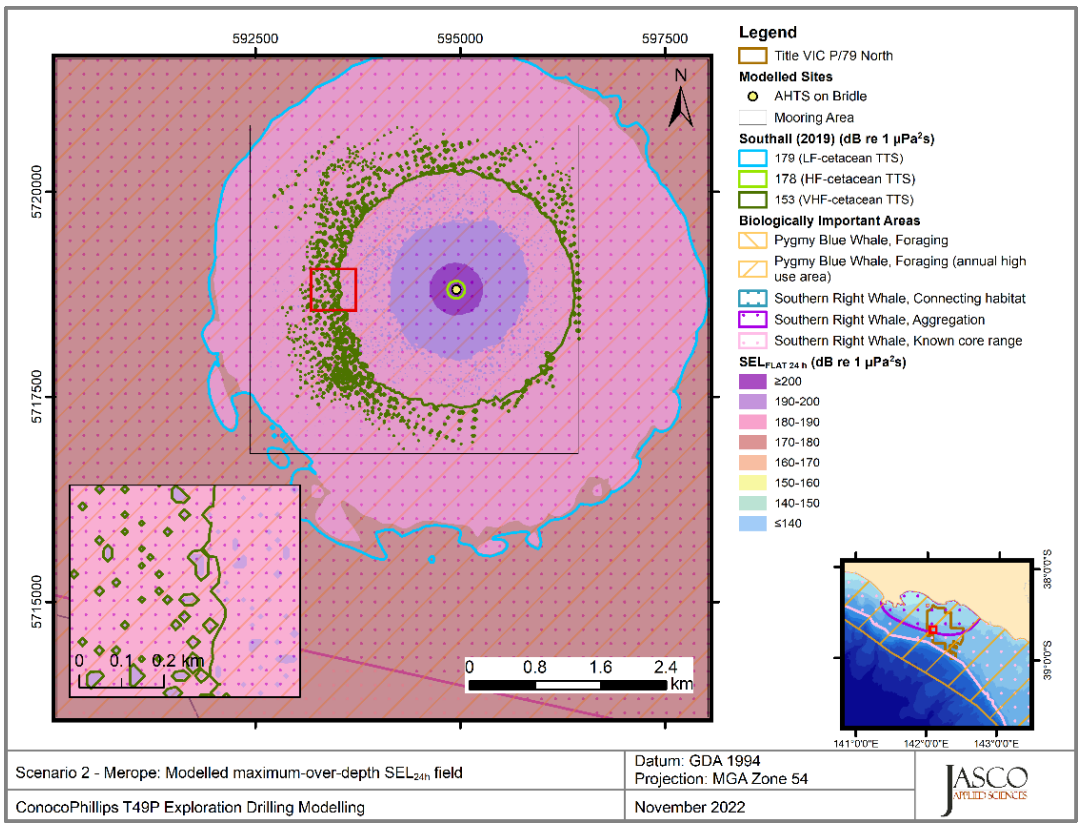


Figure 65. *Scenario 2, Mooring* — VIC/P79 *Merope*, SEL_{24h}: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

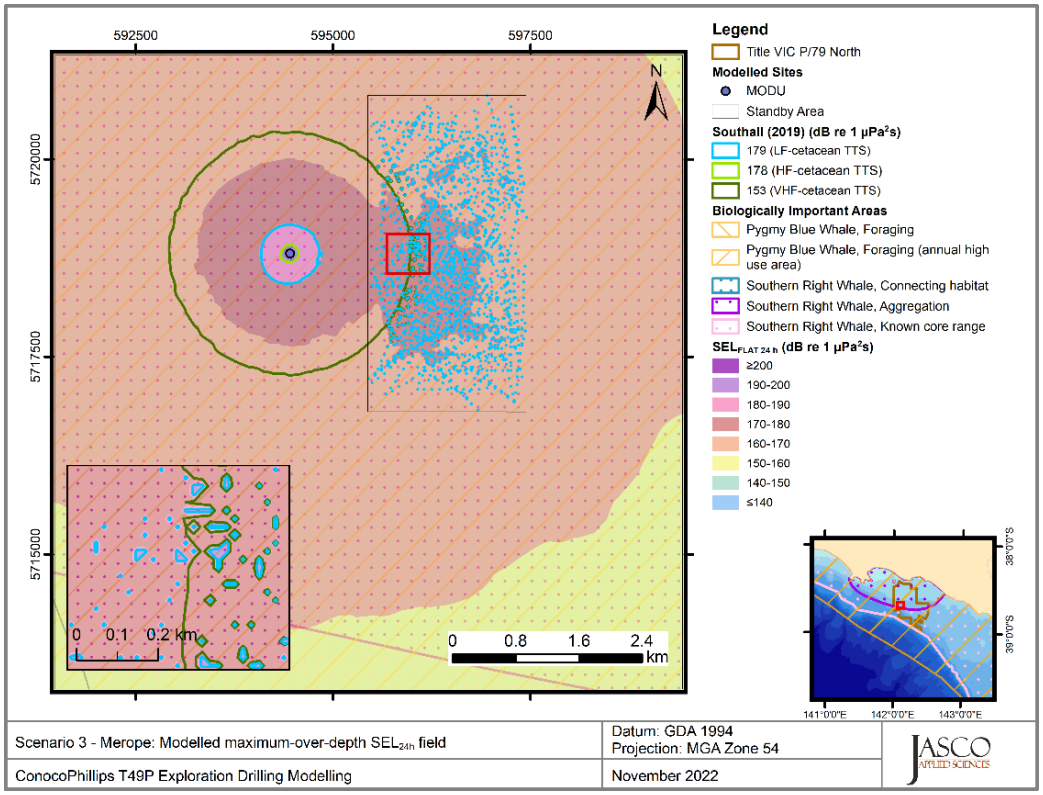


Figure 66. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Merope, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

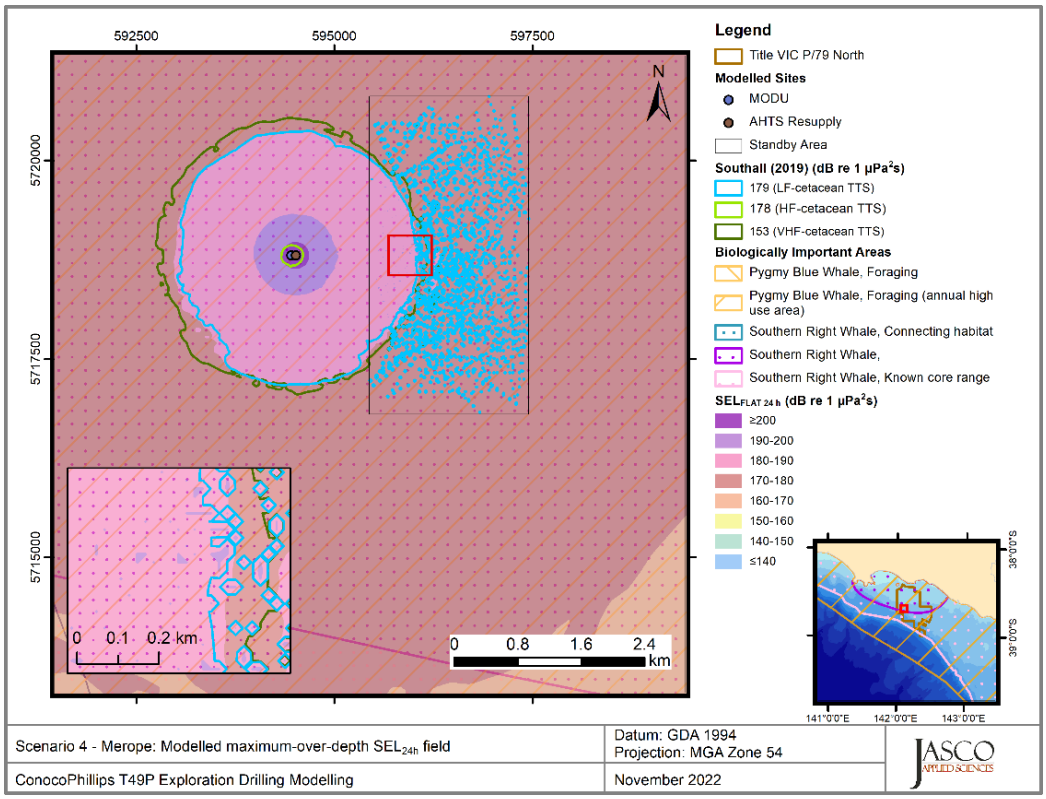


Figure 67. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Merope,* SEL24h: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

4.1.2.2.5. VIC/P79 Julpha

Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

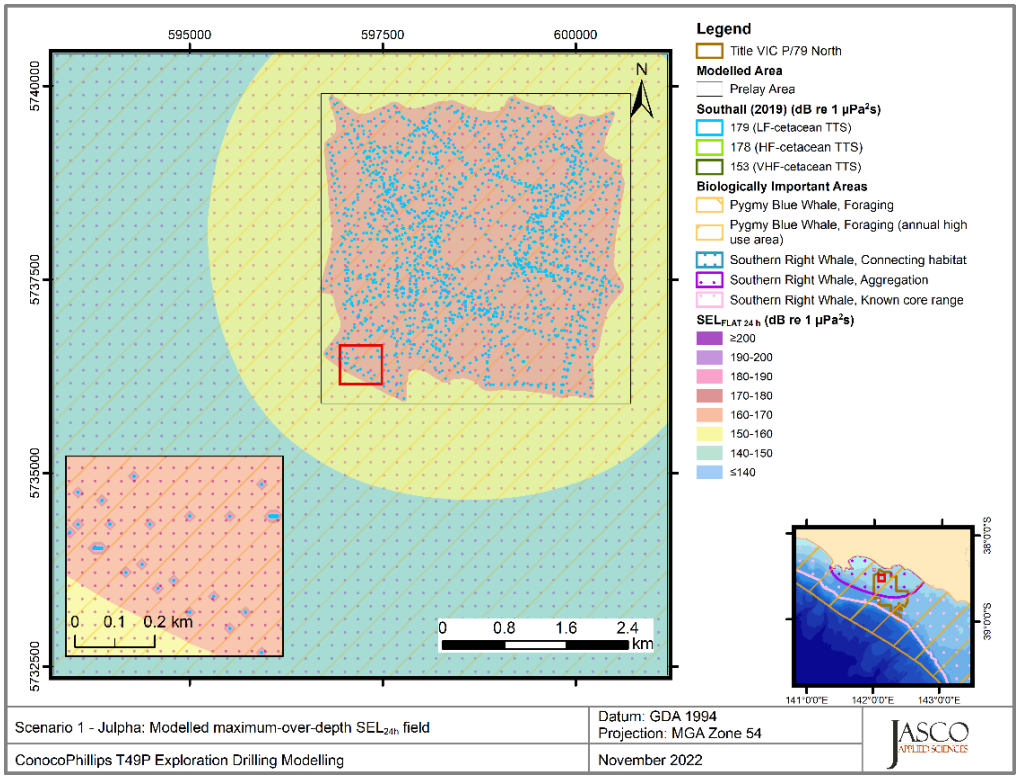


Figure 68. *Scenario 1, Prelay* — VIC/P79 *Julpha, SEL_{24h}*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

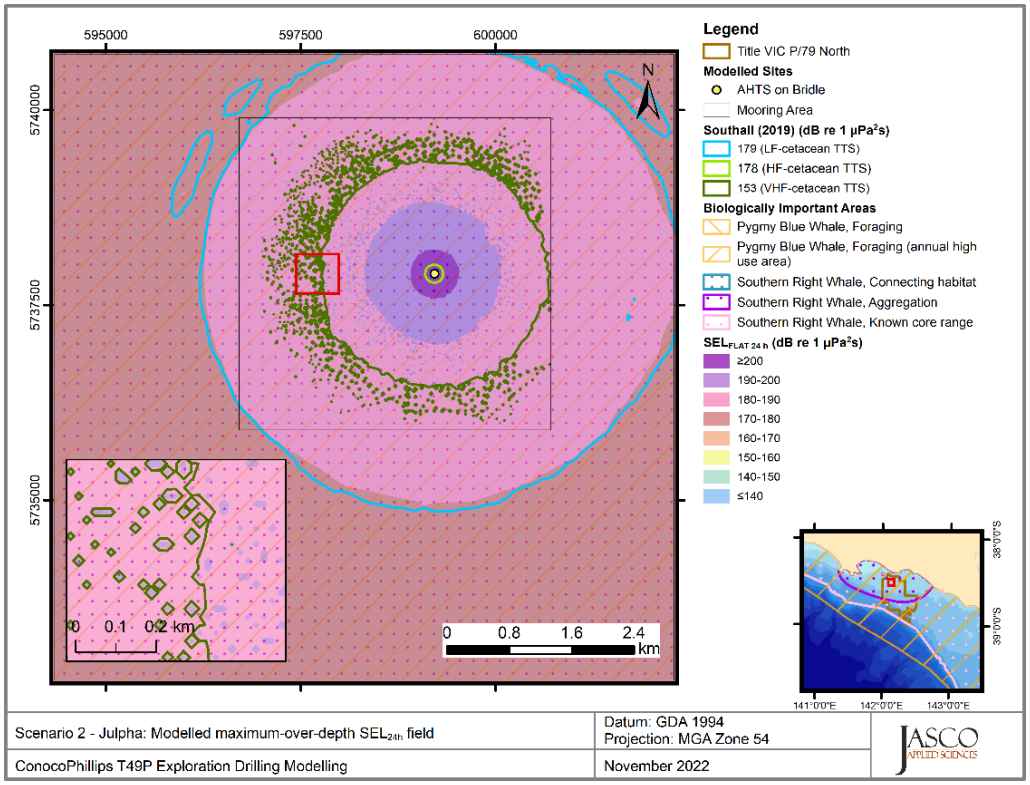


Figure 69. *Scenario 2, Mooring* — VIC/P79 *Julpha,* SEL_{24h}: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

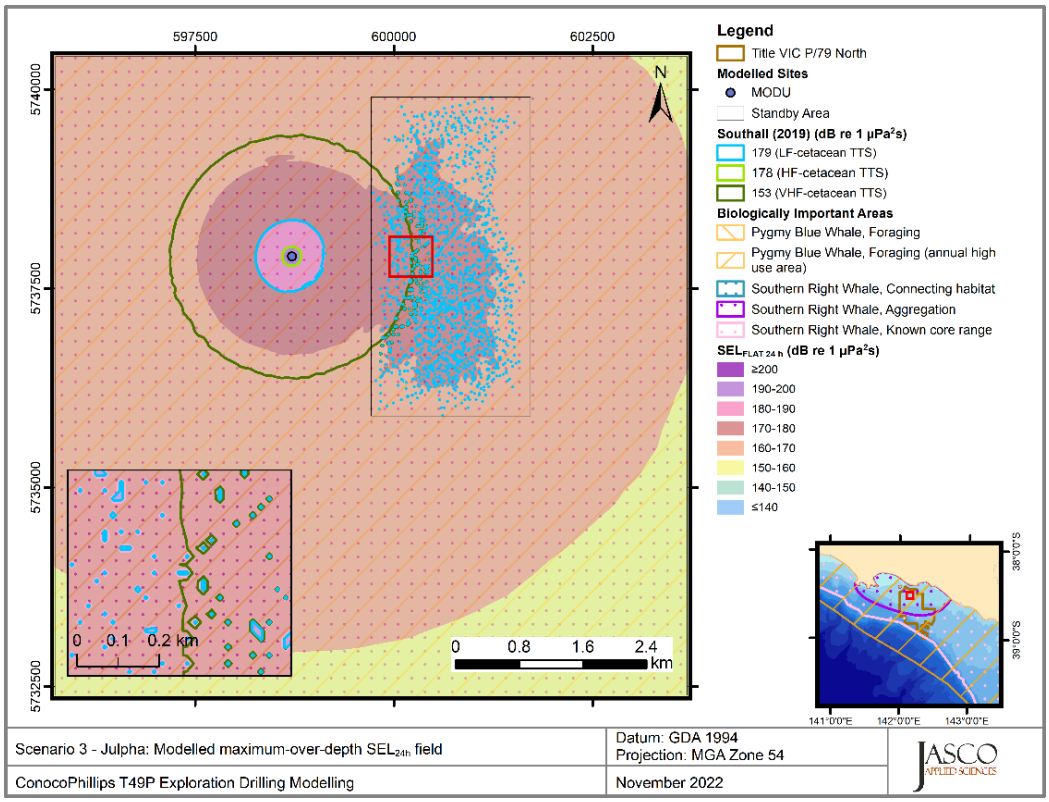


Figure 70. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Julpha, SEL_{24h}*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

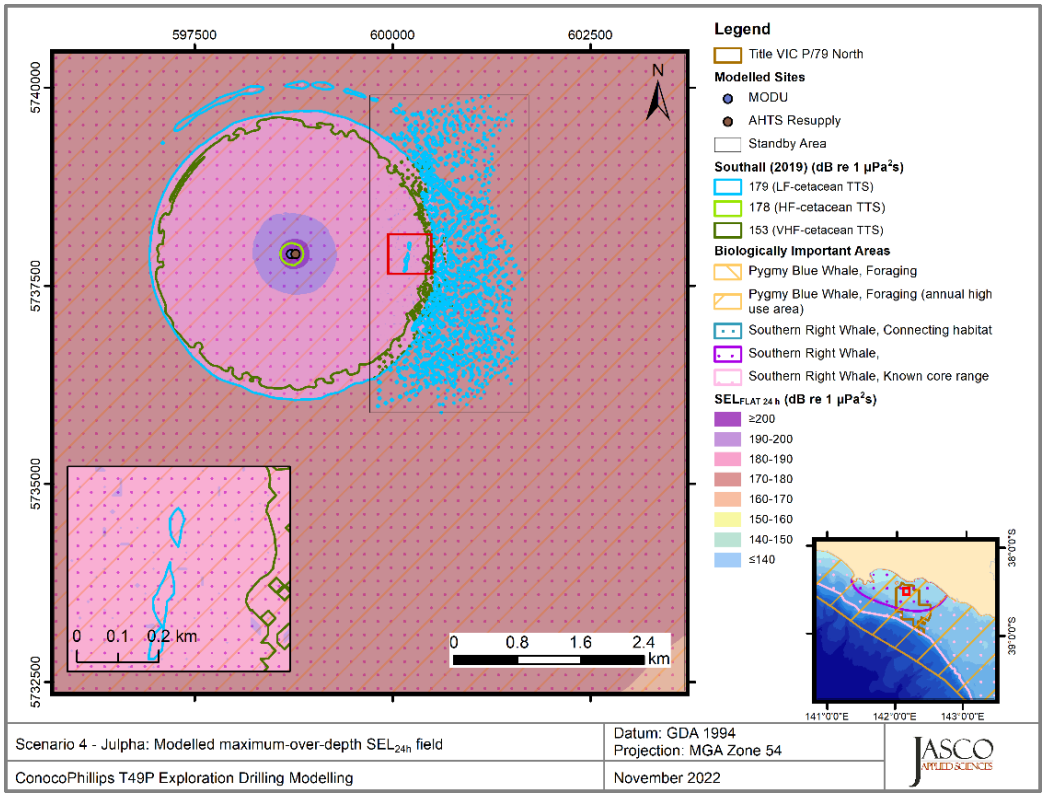


Figure 71. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Julpha*, SEL_{24h}: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

4.1.2.2.6. VIC/P79 Essington

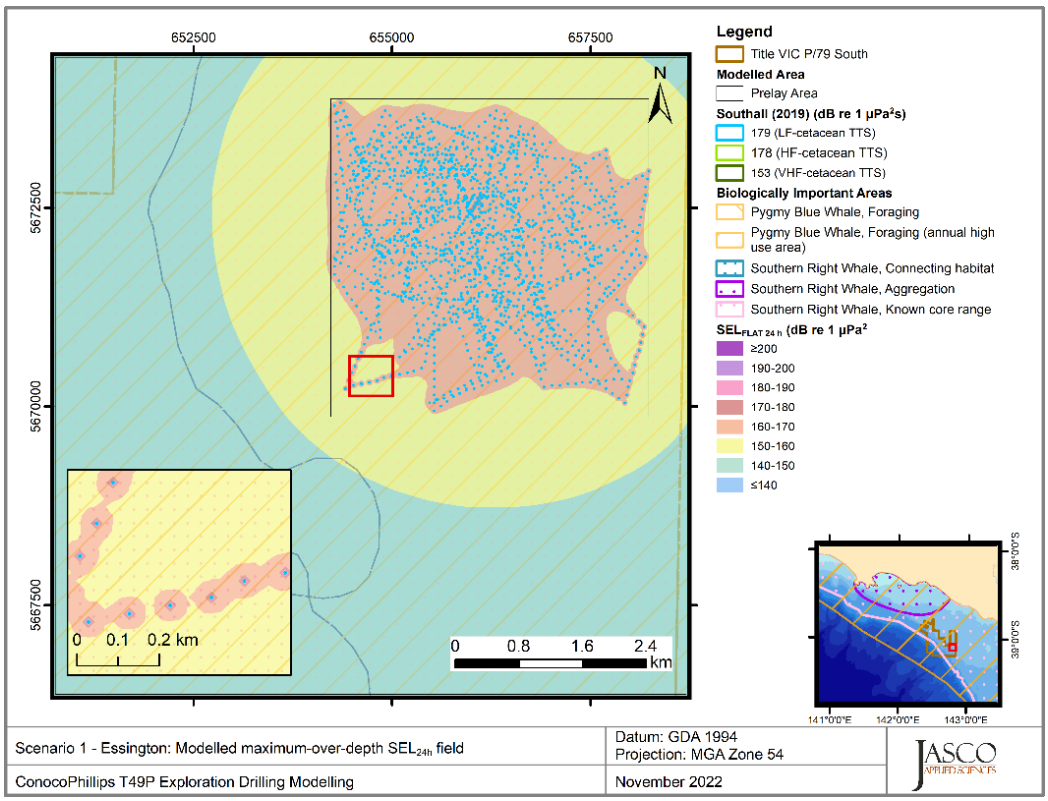


Figure 72. *Scenario 1, Prelay* — VIC/P79 *Essington, SEL$_{24h}$*: Sound level contour map showing unweighted maximum-over-depth SEL$_{24h}$ results, along with isopleths for temporary threshold shift (TTS) thresholds.

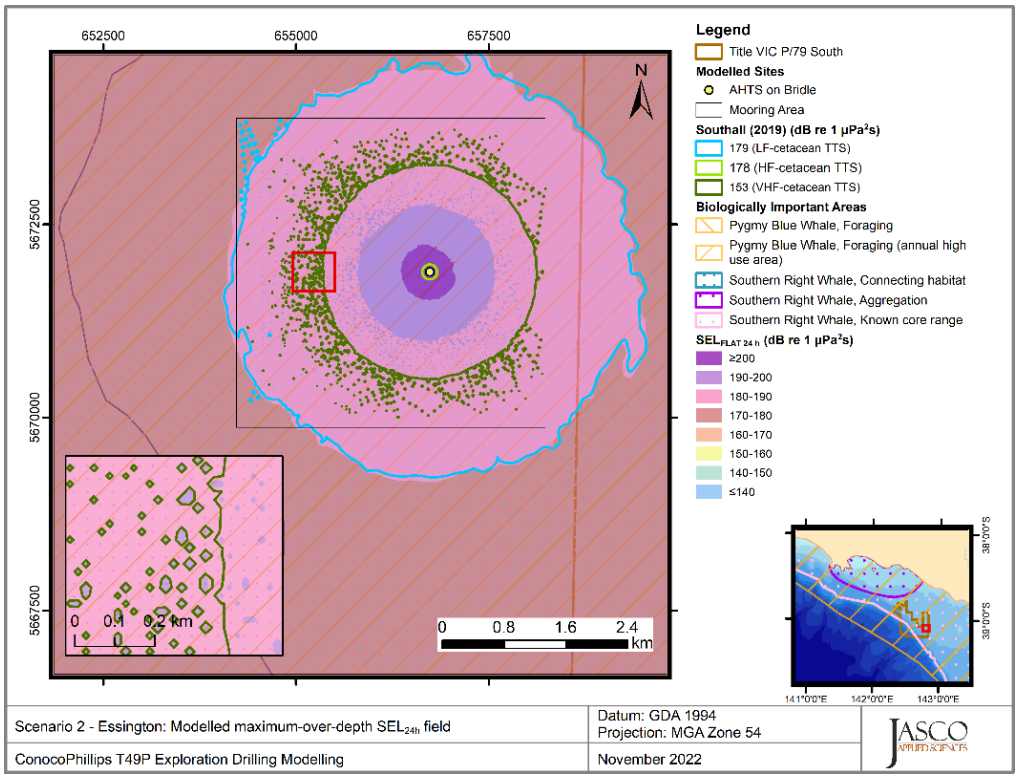


Figure 73 *Scenario 2, Mooring* — VIC/P79 *Essington*, SEL$_{24h}$: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

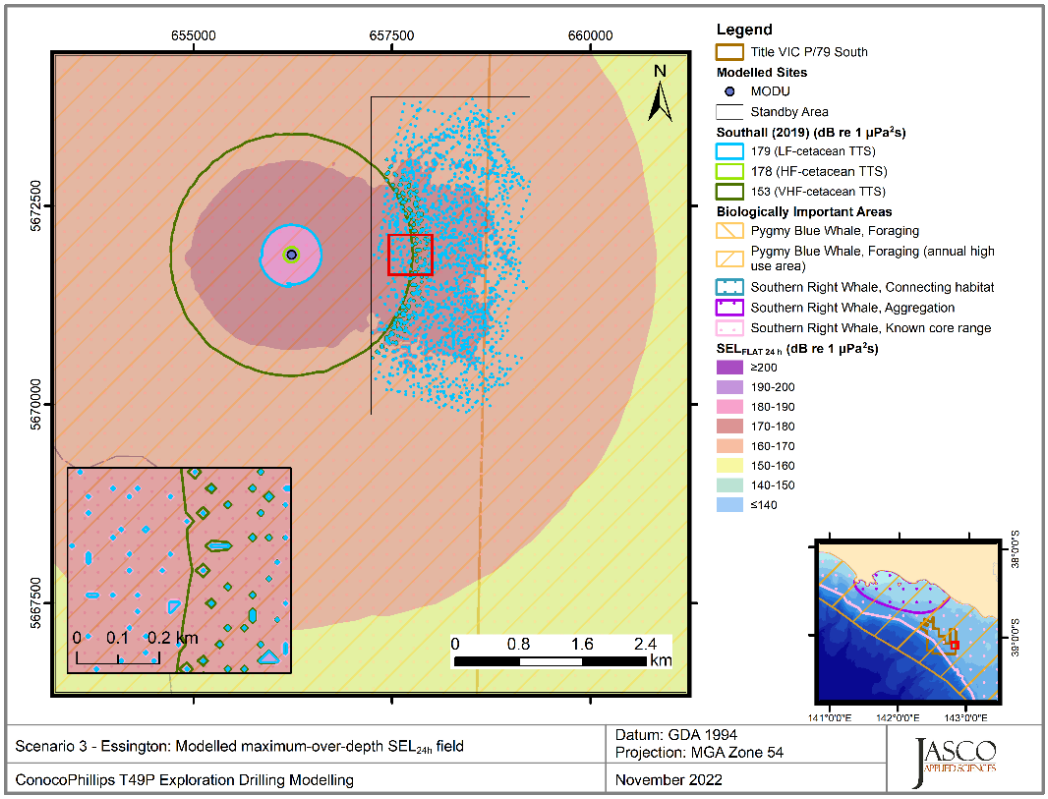


Figure 74. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Essington, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds.

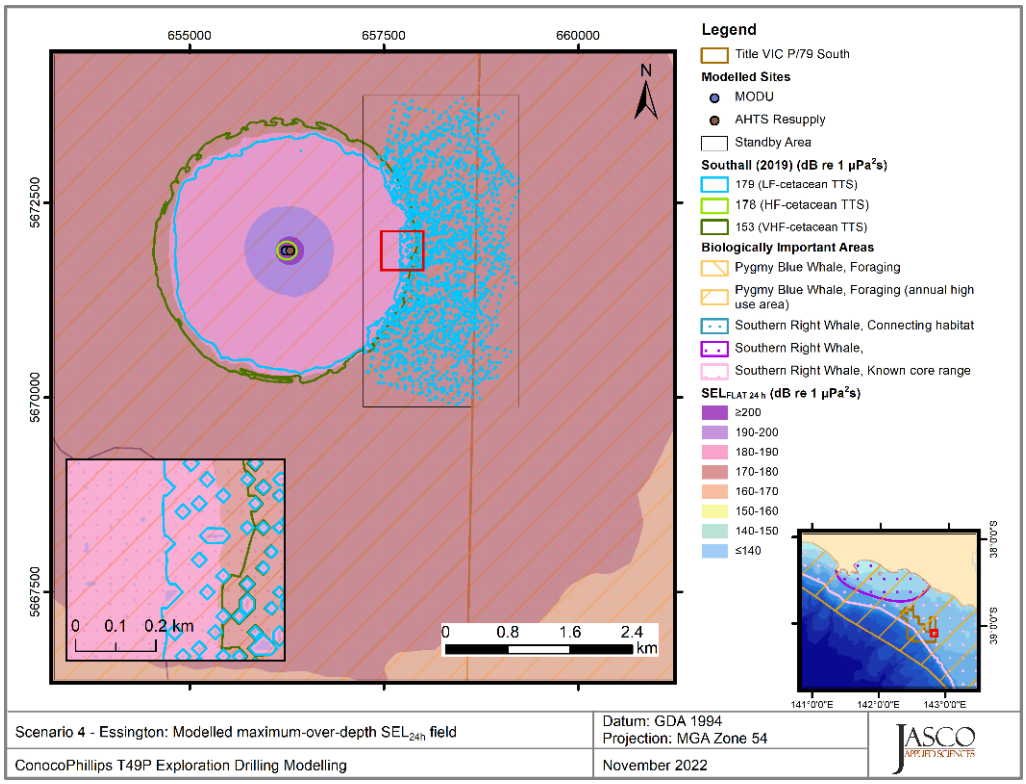


Figure 75. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Essington*, SEL_{24h}: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

4.1.2.2.7. VIC/P79 Garfield

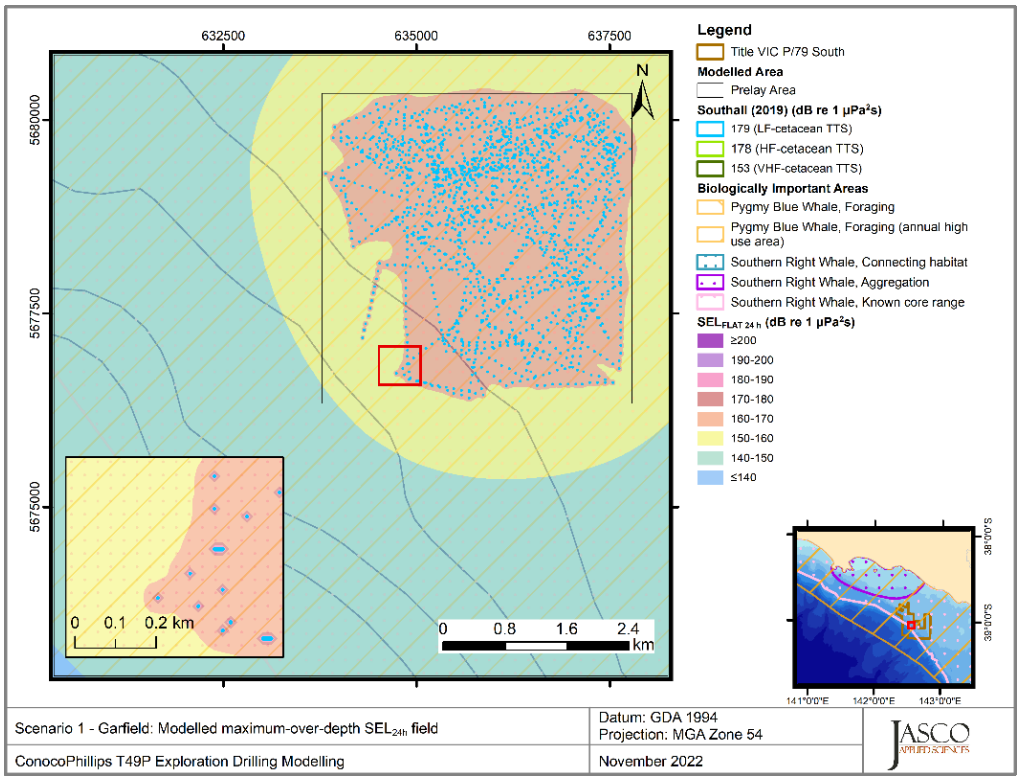


Figure 76. *Scenario 1, Prelay* — VIC/P79 *Garfield, SEL24h*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

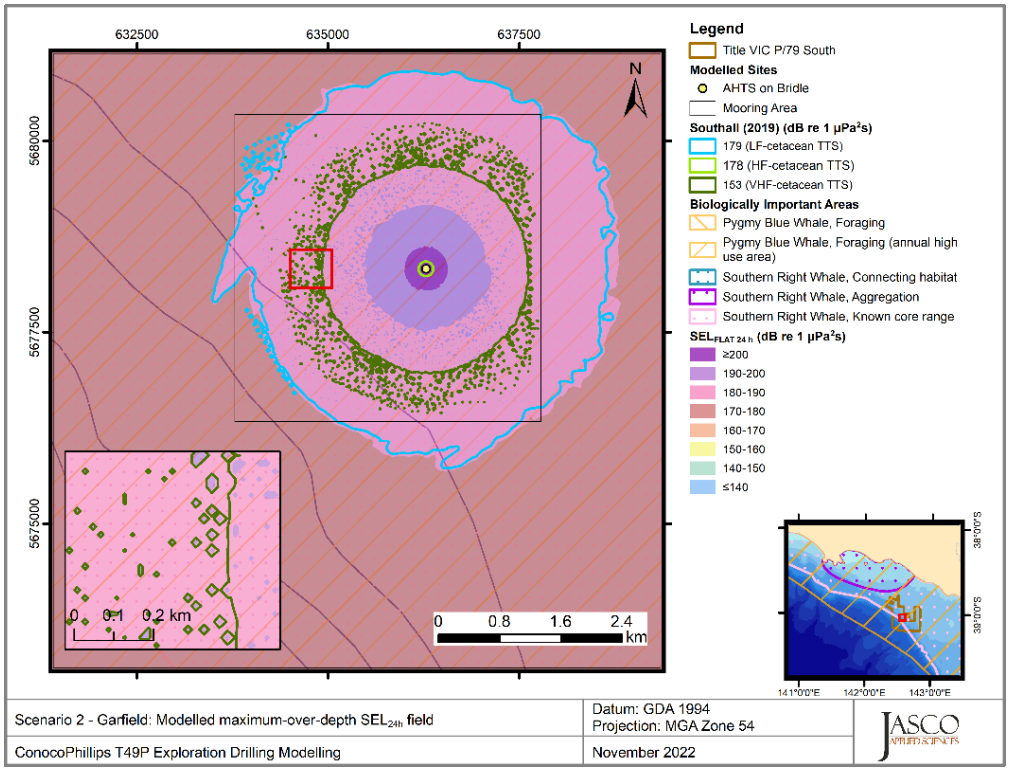


Figure 77. *Scenario 2, Mooring* — VIC/P79 *Garfield, SEL_{24h}*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

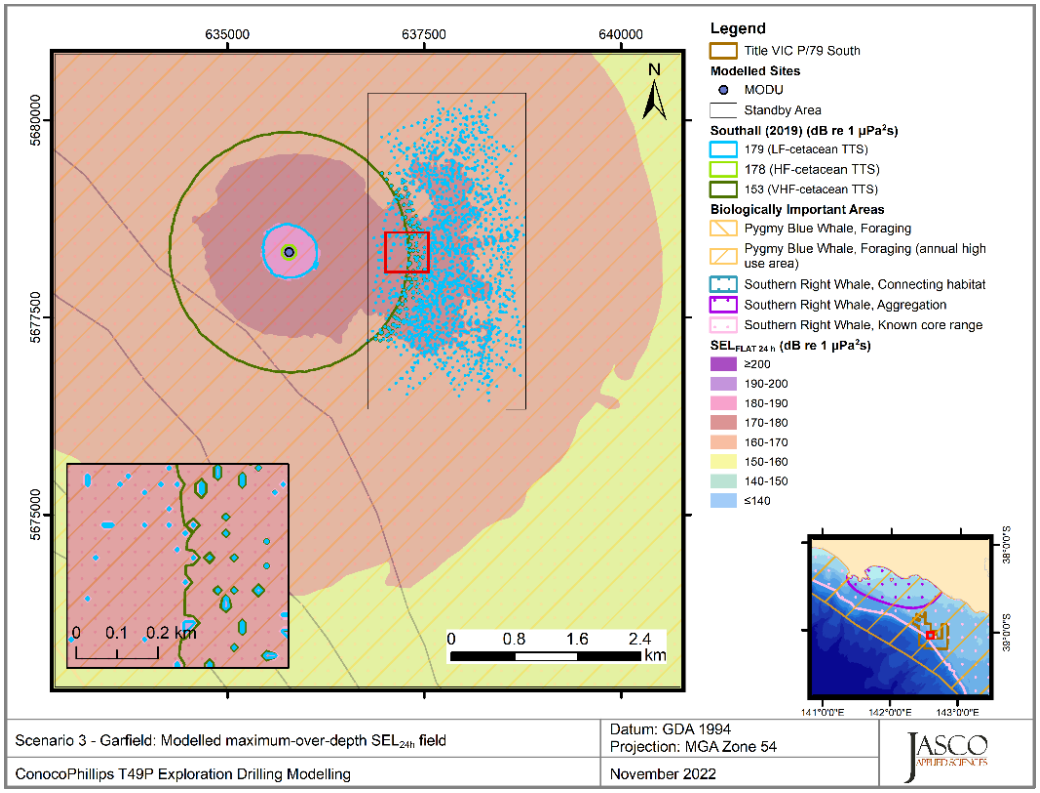


Figure 78. *Scenario 5, Drilling with standby vessel* — VIC/P79 *Garfield, SEL_{24h}*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

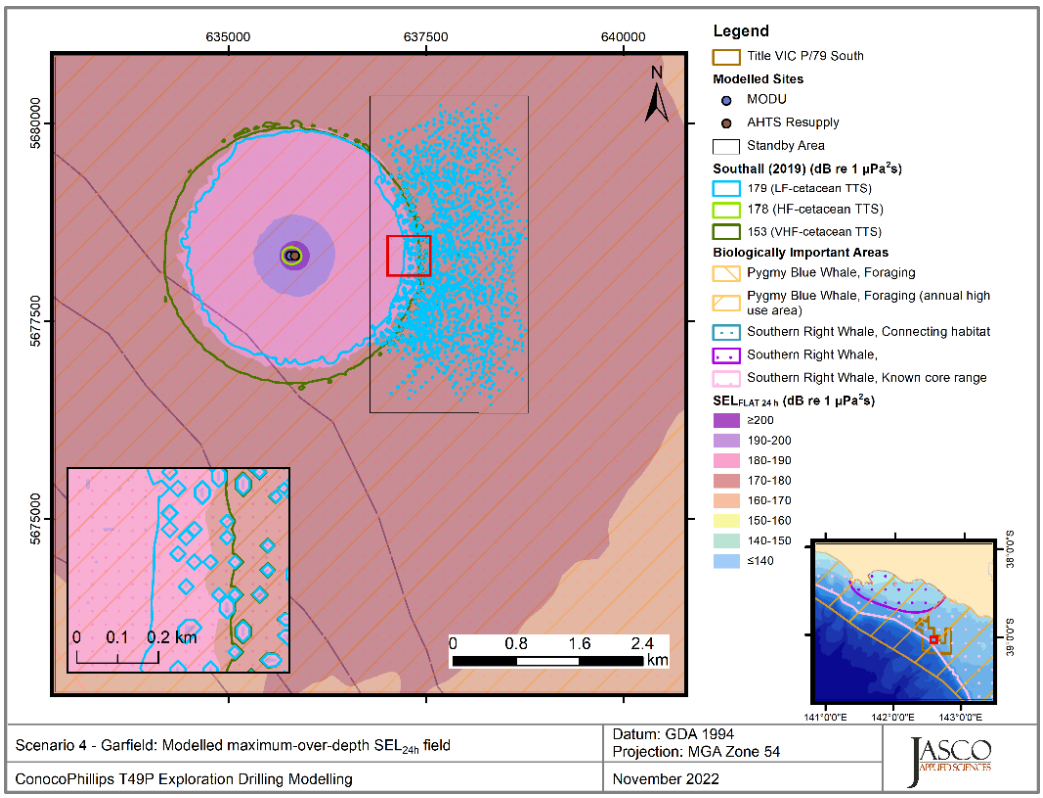


Figure 79. *Scenario 6, Drilling, resupply and standby vessel* — VIC/P79 *Garfield, SEL$_{24h}$*: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

4.1.2.2.8. *VIC/P79 Garfield West*

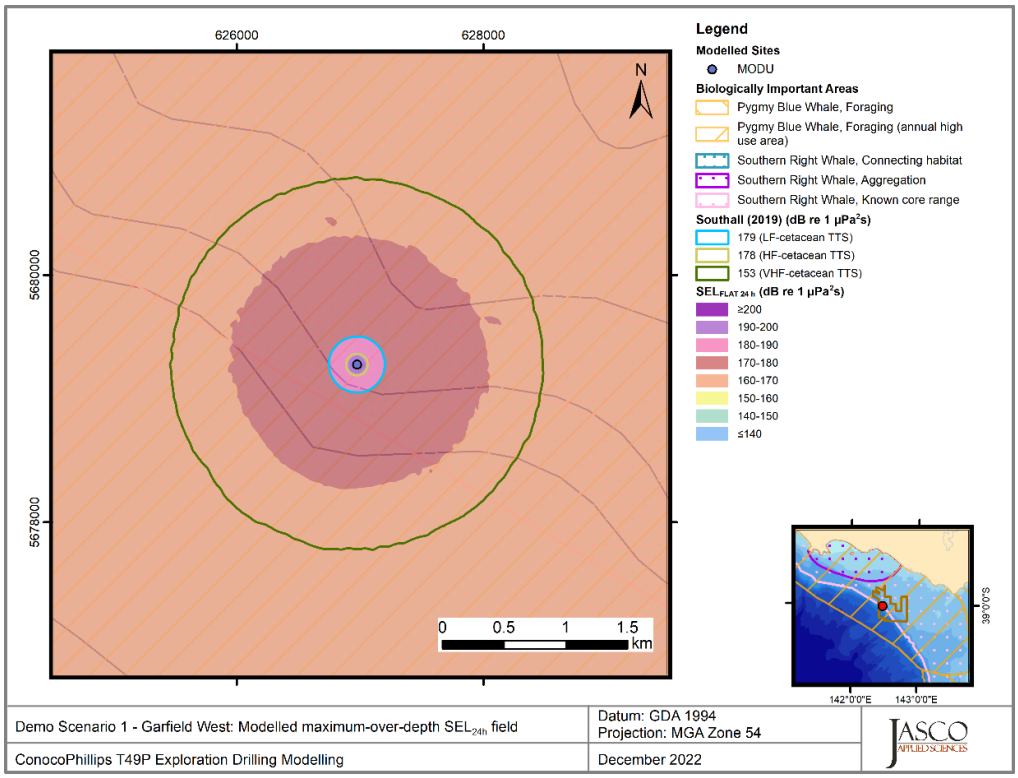


Figure 80. *Scenario 3, Drilling*— VIC/P79 *Garfield West, SEL$_{24h}$*: Sound level contour map showing unweighted maximum-over-depth SEL$_{24h}$ results, along with isopleths for temporary threshold shift (TTS) thresholds.

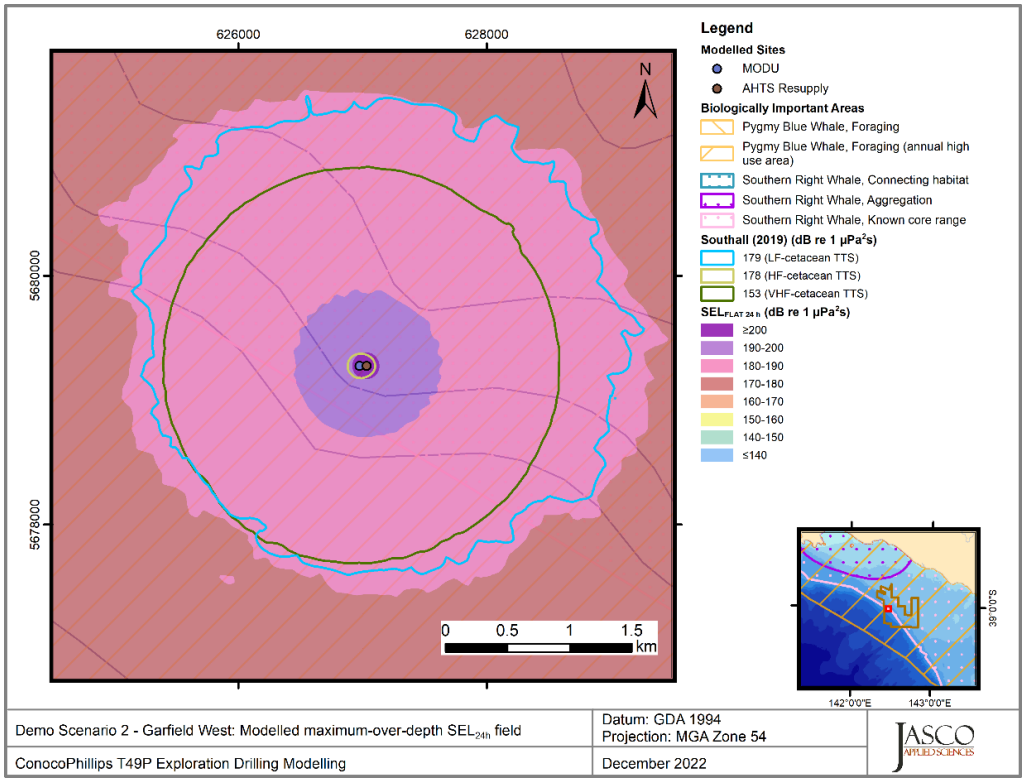


Figure 81. *Scenario 4, Drilling and resupply*— VIC/P79 *Garfield West*, SEL_{24h}: Sound level contour map showing unweighted maximum-over-depth SEL24h results, along with isopleths for temporary threshold shift (TTS) thresholds.

4.2. Vertical Seismic Profiling (VSP)

4.2.1. Acoustic Source Levels and Directivity

AASM (Section 3.2.1) was used to predict the horizontal and vertical overpressure signatures and corresponding power spectrum levels for the seismic source, with results provided in Appendix B along with the horizontal directivity plots.

Table 31 shows the PK and per-pulse SEL source levels in the horizontal-plane broadside (perpendicular to the sagittal plane of the array), endfire (parallel to the sagittal plane of the array), and vertical directions. The vertical source level that accounts for the 'surface ghost' (the out of phase reflected pulse from the water surface) is also presented to make it easier to compare the output of other seismic source models.

Appendix B.3 shows the broadside, endfire, and vertical overpressure signature and corresponding power spectrum levels for the source. The signature consists of a strong primary peak, related to the initial release of high-pressure air, followed by a series of pulses associated with bubble oscillations. Most energy was produced at frequencies below 300 Hz. Frequency-dependent peaks and nulls in the spectrum result from interference among airguns in the source and correspond with the volumes and relative locations of the airguns to each other.

Table 31. Far-field source level specifications for the 750 in^3 Vertical Seismic Profiling (VSP) array, for a 5 m source depth. Source levels are for a point-like acoustic source with equivalent far-field acoustic output in the specified direction. Sound level metrics are per-pulse and unweighted.

Direction	Peak source pressure level ($L_{S,pk}$; dB re 1 µPa m)	Per-pulse source SEL ($L_{S,E}$; dB 1 µPa^{2}m^{2}s)	
		10–2000 Hz	2000–25000 Hz
Broadside	239.3	214.5	168.8
Endfire	239.4	214.5	165.8
Vertical	239.2	214.5	173.6
Vertical (surface affected source level)	239.3	216.1	176.3

4.2.2. Per-Pulse Sound Fields

This section presents the per-pulse sound fields in terms of maximum-over-depth SPL, SEL, PK, and seafloor PK and PK-PK. The different metrics are presented for the following reasons:

- Per-pulse SEL sound fields (Table 32) are used as inputs into the 24 h SEL scenario and to provide context for the range to 160 dB re 1 µPa^2·s, relevant for the EPBC Act Policy Statement 2.1 (DEWHA 2008).
- SPL sound fields (Table 33) were used to determine the distances to marine mammal and turtle behavioural thresholds (see Sections 2.1 and 2.2). In addition, the maximum distance to the low-frequency weighted SPL 140 dB, and the SPL at the nominated receiver locations relevant to SRW are presented in Tables 34 and **Error! Reference source not found.**.
- PK metrics within the water column (Table 35) are relevant to thresholds and guidelines for marine mammals, sea turtles, fish, fish eggs and larvae (as well as plankton; see Sections 2.1 and 2.2).
- PK metrics at the seafloor (Table 36) are relevant to guidelines for fish, fish eggs and larvae (Section 3.4).
- PK-PK metrics at the seafloor (Table 37) are relevant to sound levels used in assessing effect on benthic invertebrates (see Section 2.3).

The SPL sound fields, and distances to relevant isopleths can be visualised on the contour maps presented in Section 4.2.4.1.

Table 32. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) from the 750 in^3 Vertical Seismic Profiling (VSP) array to modelled maximum-over-depth unweighted per-pulse sound exposure level (SEL) isopleths for nominal drilling locations.

Per-pulse SEL (L_E; dB re 1 µPa^2·s)	*T/49P British Admiral*		*T/49P Flanagan*		*VIC/P79 Julpha*		*VIC/P79 Garfield*	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
190	–	–	–	–	–	–	–	–
180	0.05	0.05	0.05	0.05	0.07	0.07	0.05	0.05
170	0.26	0.25	0.26	0.25	0.23	0.22	0.25	0.24
160[a]	0.72	0.69	0.71	0.69	0.61	0.59	0.94	0.89
150	1.91	1.79	1.94	1.87	1.48	1.43	3.02	2.75
140	4.51	4.14	4.28	4.00	3.76	3.52	8.83	7.45
130	8.44	7.68	8.11	7.74	13.6	12.0	29.8	24.2
120	16.9	16.1	17.4	16.3	32.1	27.4	>100	/
110	29.8	27.6	31.8	28.9	48.1	42.1		

[a] Low power zone assessment criteria DEWHA (2008).
A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).
A slash indicates that $R_{95\%}$ is not reported when the R_{max} was greater than the maximum modelling extent.

Table 33. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) from the 750 in^3 Vertical Seismic Profiling (VSP) array to modelled maximum-over-depth unweighted per-pulse sound pressure level (SPL) isopleths for nominal drilling locations.

SPL (L_p; dB re 1 µPa)	*T/49P British Admiral*		*T/49P Flanagan*		*VIC/P79 Julpha*		*VIC/P79 Garfield*	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
200	–	–	–	–	–	–	–	–
190	0.04	0.04	0.04	0.04	0.06	0.06	0.05	0.05
180	0.23	0.22	0.23	0.23	0.22	0.21	0.23	0.23
175[a]	0.36	0.34	0.37	0.36	0.37	0.36	0.35	0.34
170	0.63	0.61	0.65	0.63	0.59	0.57	0.61	0.58
166[b]	0.92	0.88	0.92	0.88	0.83	0.79	0.89	0.86
160[c]	1.49	1.41	1.50	1.46	1.40	1.33	1.48	1.37
150	3.37	3.13	3.26	3.14	3.32	3.07	3.86	3.22
140	7.47	7.10	7.62	7.28	8.99	8.36	9.99	8.34
130	14.6	13.3	16.2	14.8	23.1	21.1	21.4	17.3
120	27.4	25.9	29.1	27.0	38.5	35.5	>100	/

[a] Threshold for turtle behavioural disturbance from impulsive noise (McCauley et al. 2000a).
[b] Threshold for turtle behavioural response to impulsive noise (McCauley et al. 2000a).
[c] Marine mammal behavioural threshold for impulsive sound sources (NOAA 2019).
A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).
A slash indicates that $R_{95\%}$ is not reported when the R_{max} was greater than the maximum modelling extent.

Table 34. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) from the 750 in^3 Vertical Seismic Profiling (VSP) array to modelled maximum-over-depth low-frequency cetacean weighted per-pulse sound pressure level (SPL) 140 dB isopleth for both drilling locations.

LF cetacean weighted SPL ($L_{p,LF}$; dB re 1 µPa)	*T/49P British Admiral*		*T/49P Flanagan*		*VIC/P79 Julpha*		*VIC/P79 Garfield*	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
140[a]	5.35	5.03	5.35	5.03	6.39	6.02	6.48	5.37

[a] Marine mammal behavioural response threshold for a 50% probability of response for impulsive sound sources (adapted from Wood et al. (2012)).

Table 35. *VSP, PTS, and TTS PK thresholds*: Maximum (R_{max}) horizontal distances (m) from the 750 in^3 Vertical Seismic Profiling (VSP) array to modelled maximum-over-depth peak pressure level (PK) PTS and TTS thresholds for marine mammals (Southall et al. 2019), fish (Popper et al. 2014), and sea turtles (Finneran et al. 2017) for nominal drilling locations.

Hearing group		PK threshold (L_{pk}; dB re 1 µPa)	*British Admiral*	*Flanagan*	*Julpha*	*Garfield*
			Distance R_{max} (km)	Distance R_{max} (km)	Distance R_{max} (km)	Distance R_{max} (km)
LF cetaceans	PTS	219	–	–	–	–
	TTS	213	–	–	–	–
HF cetaceans	PTS	230	–	–	–	–
	TTS	224	–	–	–	–
VHF cetaceans	PTS	202	0.06	0.06	0.11	0.06
	TTS	196	0.25	0.24	0.21	0.14
Otariid pinnipeds in water	PTS	232	–	–	–	–
	TTS	226	–	–	–	–
Sea turtles	PTS	232	–	–	–	–
	TTS	226	–	–	–	–
Fish: No swim bladder (also applied to sharks)		213	–	–	–	–
Fish: Swim bladder not involved in hearing, Swim bladder involved in hearing, Fish eggs, and larvae		207	0.04	0.04	0.05	–

A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

Table 36. *VSP, seafloor PK*: Maximum (R_{max}) horizontal distances (in m) from the 750 in^3 Vertical Seismic Profiling (VSP) array to modelled seafloor peak pressure level thresholds (Popper et al. 2014) (PK) for nominal drilling locations.

Hearing group/animal type	PK threshold (L_{pk}; dB re 1 µPa)	*British Admiral*	*Flanagan*	*Julpha*	*Garfield*
		Distance R_{max} (m)	Distance R_{max} (m)	Distance R_{max} (m)	Distance R_{max} (m)
Fish: No swim bladder (also applied to sharks)	213	*	*	*	*
Fish: Swim bladder not involved in hearing; Swim bladder involved in hearing Sea turtles, fish eggs, and larvae	207			45.5	

An asterisk indicates that the sound level was not reached.

Table 37. Maximum (R_{max}) horizontal distances (in m) from the 750 in^3 Vertical Seismic Profiling (VSP) array to modelled seafloor peak-peak pressure levels (PK-PK) for nominal drilling locations.

PK-PK (L_{pk-pk}; dB re 1 µPa)	*British Admiral*	*Flanagan*	*Julpha*	*Garfield*
	Distance R_{max} (m)	Distance R_{max} (m)	Distance R_{max} (m)	Distance R_{max} (m)
213[a,b,c]	*	*	27.5	*
212[b,c]	*	*	39.0	*
210[a,b]	*	*	61.8	*
209[a,b]	*	*	74.2	*
202[d]	169	164	137.3	169.6

[a] Day et al. (2019), lobster
[b] Day et al. (2016a), lobster and scallops
[c] Day et al. (2017), scallops.
[d] Payne et al. (2008), lobster
An asterisk indicates that the sound level was not reached.

4.2.3. Multiple Pulse Sound Fields

This section presents the sound fields in terms of SEL accumulated over 24 h of activity, for the modelled scenarios (Table 11). Frequency-weighted SEL_{24h} sound fields were used to estimate the maximum and 95% distances (R_{max} and $R_{95\%}$; calculated as detailed in Appendix D.3) to marine mammals and turtle PTS and TTS thresholds (listed in Table 38), and to estimate maximum distance and the area to injury and TTS guidelines for fish (Table 39).

Table 38. *VSP, multiple-pulse SEL*: Maximum-over-depth distances (in km) to frequency-weighted SEL_{24h} based PTS and TTS thresholds for marine mammals Southall et al. (2019) and sea turtles (Finneran et al. 2017) from Vertical Seismic Profiling (VSP) operations for nominal drilling locations, assuming different numbers of impulses during a 24 h period.

Hearing group	Threshold for SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	Distance R_{max} (km)															
		British Admiral				*Flanagan*				*Julpha*				*Garfield*			
		Number of impulses				Number of impulses				Number of impulses				Number of impulses			
		10	50	100	130	10	50	100	130	10	50	100	130	10	50	100	130
PTS																	
LF cetaceans	183	0.05	0.20	0.28	0.32	0.05	0.20	0.29	0.33	0.07	0.16	0.22	0.25	0.05	0.18	0.27	0.30
HF cetaceans	185	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VHF cetaceans	155	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Otariid seals	203	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sea turtles	204	–	–	0.03	0.03	–	–	0.03	0.03	–	–	0.02	0.03	–	–	0.02	0.03
TTS																	
LF cetaceans	168	0.47	0.99	1.35	1.47	0.48	0.97	1.31	1.50	0.37	0.70	0.92	1.00	0.50	1.50	2.07	2.39
HF cetaceans	170	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VHF cetaceans	140	0.02	0.05	0.07	0.08	0.02	0.05	0.07	0.08	–	0.05	0.07	0.09	0.02	0.05	0.06	0.07
Otariid seals	188	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sea turtles	189	0.05	0.17	0.24	0.27	0.05	0.18	0.25	0.27	0.06	0.13	0.20	0.23	0.03	0.15	0.23	0.26

A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

Table 39. *VSP, multiple-pulse SEL:* Maximum ranges to SEL_{24h} based fish criteria (Popper et al. 2014) from VSP operations, assuming different numbers of impulses during a 24 h period.

Marine fauna group	Threshold for SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	Distance R_{max} (km)															
		T/49P British Admiral				*T/49P Flanagan*				*VIC/P79 Julpha*				*VIC/P79 Garfield*			
		Number of impulses				Number of impulses				Number of impulses				Number of impulses			
		10	50	100	130	10	50	100	130	10	50	100	130	10	50	100	130
Mortality and potential mortal injury																	
I	219	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
II, fish eggs and fish larvae	210	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
III	207	–	–	0.02	0.03	–	–	0.02	0.03	–	–	0.02	0.03	–	–	–	0.02
Fish recoverable injury																	
I	216	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
II, III	203	–	0.02	0.03	0.03	–	0.03	0.03	0.04	–	0.02	0.03	0.05	–	0.02	0.03	0.03
Fish TTS																	
I, II, III	186	0.11	0.28	0.36	0.42	0.12	0.28	0.38	0.43	0.11	0.26	0.35	0.39	0.06	0.27	0.37	0.45

Fish I–No swim bladder; Fish II–Swim bladder not involved with hearing; Fish III–Swim bladder involved with hearing.
A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

4.2.4. Sound Field Maps

Maps of the estimated sound fields, threshold contours, and isopleths of interest for the VSP operations are presented for all modelled nominal sites. The per-pulse SPL sound fields are presented as contour maps in Figures 82 to 85. The SEL_{24h} sound fields are presented as contour maps in Figures 86 to 89 for 130 impulses per day. These figures present the unweighted SEL_{24h} in 10 dB steps, as well as the isopleths corresponding to thresholds or guidelines for which R_{max} is greater than 20 m, the modelling resolution.

4.2.4.1. Maximum-over-depth Per-Pulse Sound Fields

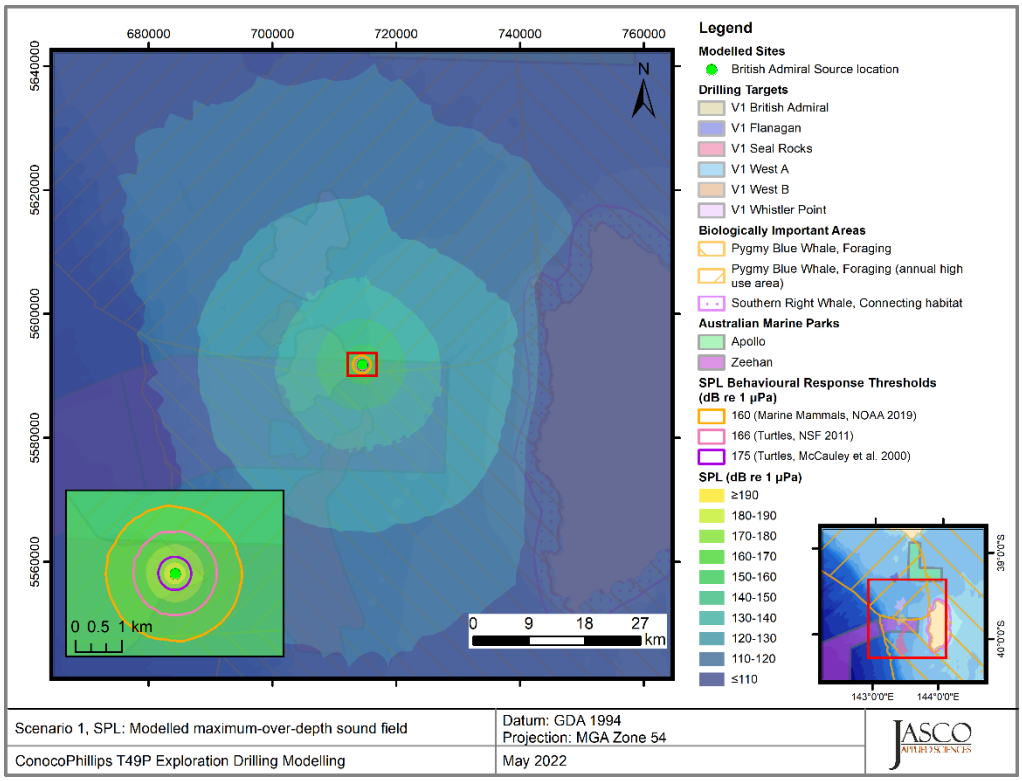


Figure 82. *VSP, T/49P British Admiral, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleth of behavioural response thresholds for marine mammals and turtles.

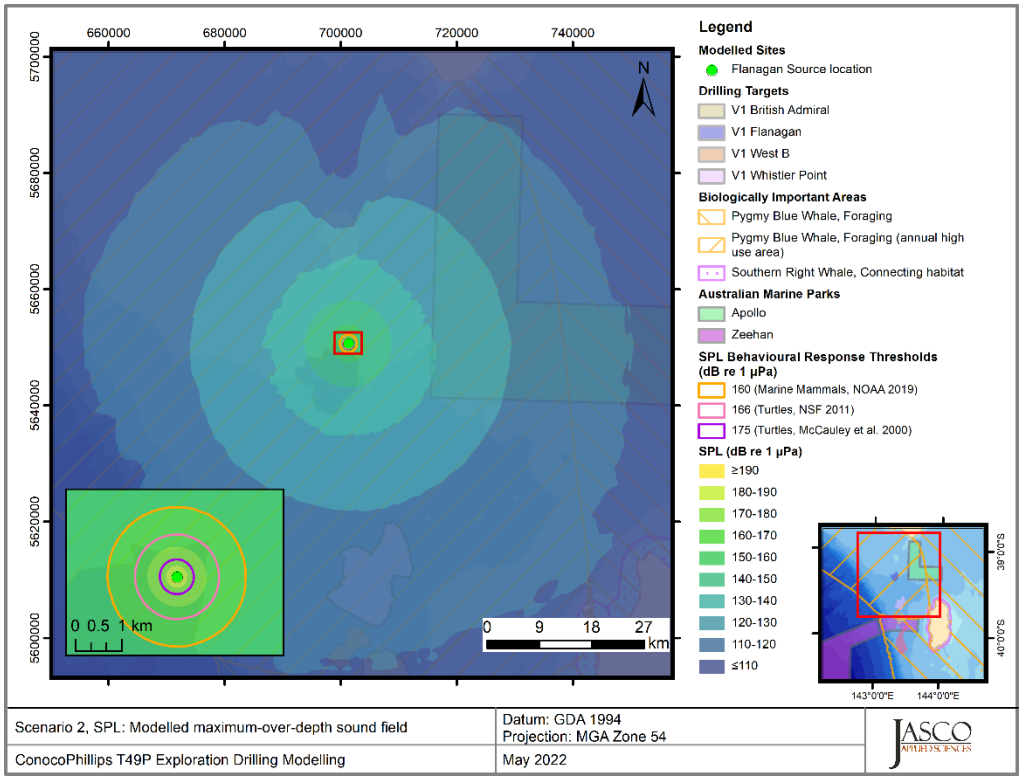


Figure 83. *VSP, T/49P Flanagan, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleth of behavioural response thresholds for marine mammals and turtles.

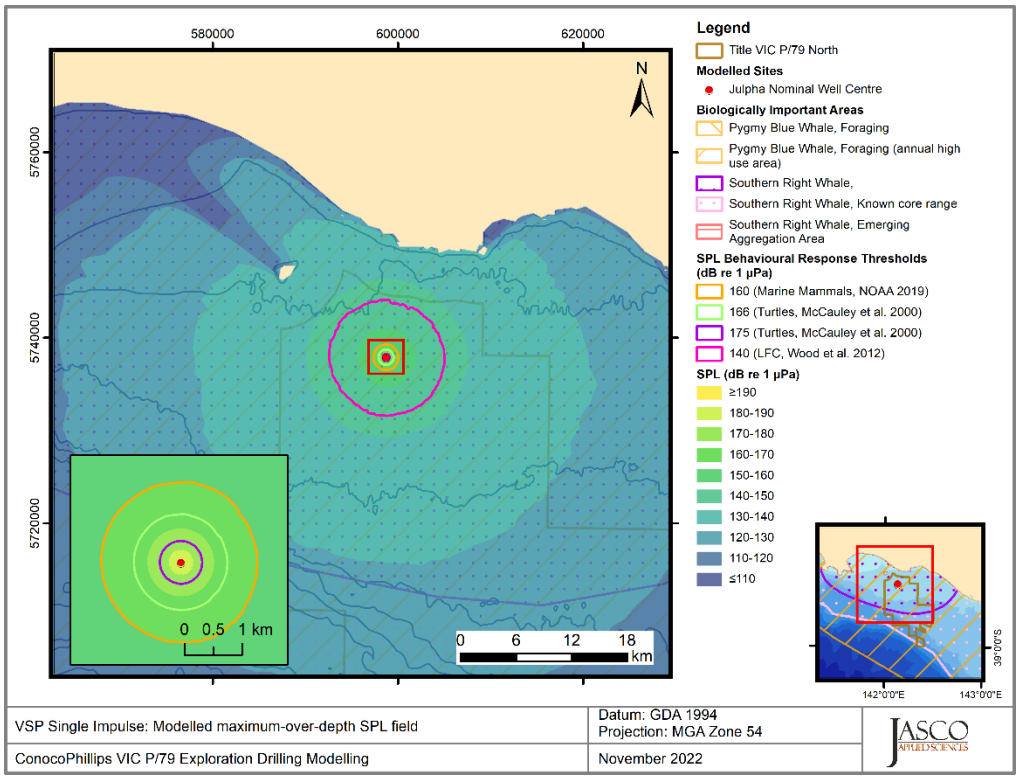


Figure 84. *VSP, VIC/P79 Julpha, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleth of behavioural response thresholds for marine mammals and turtles.

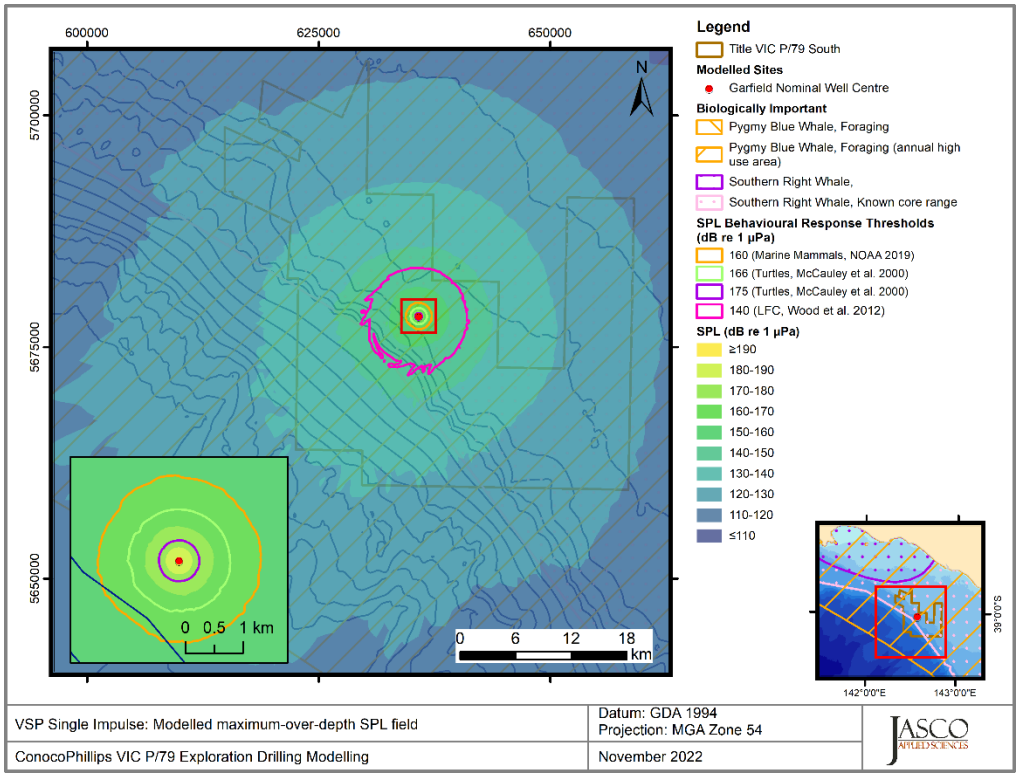


Figure 85. *VSP, VIC/P79 Garfield, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleth of behavioural response thresholds for marine mammals and turtles.

4.2.4.2. Accumulated Multi-Pulse Sound Fields

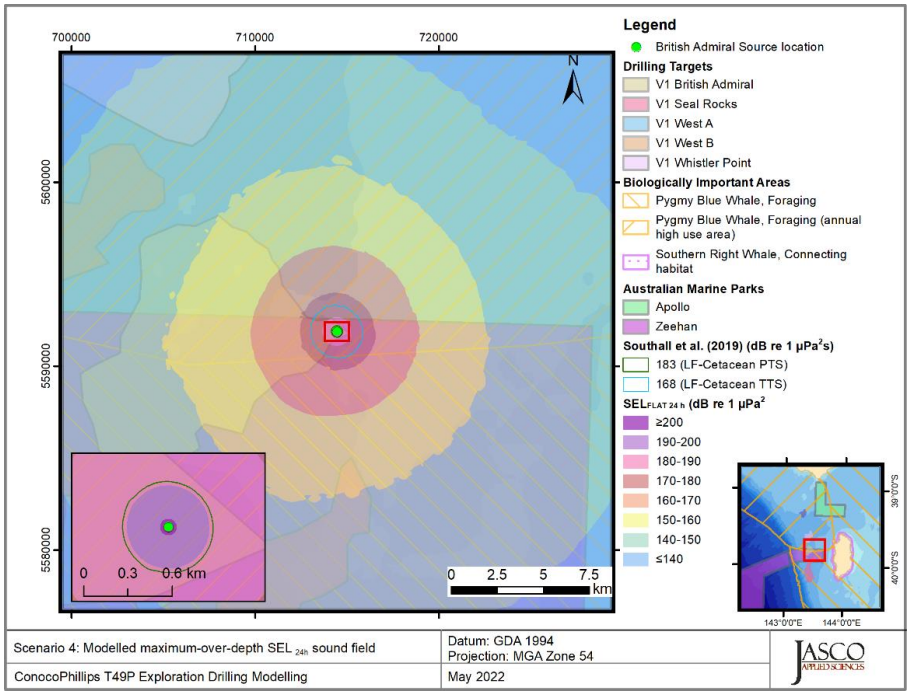


Figure 86. *VSP, T/49P British Admiral, multiple-pulse SEL, 130 impulses*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.2.3 for distances.

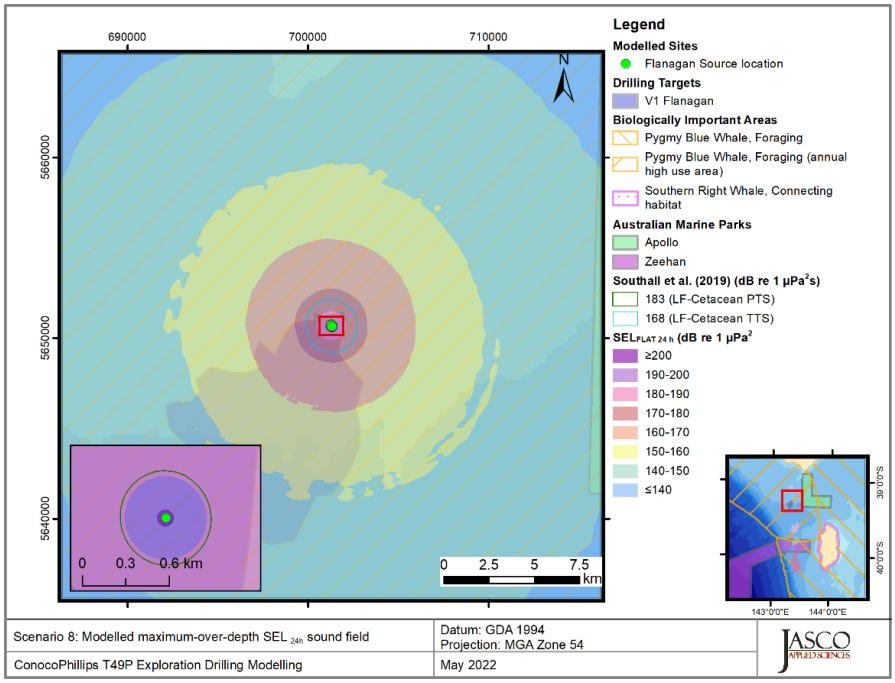


Figure 87. *VSP, Flanagan, multiple-pulse SEL, 130 impulses*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.2.3 for distances.

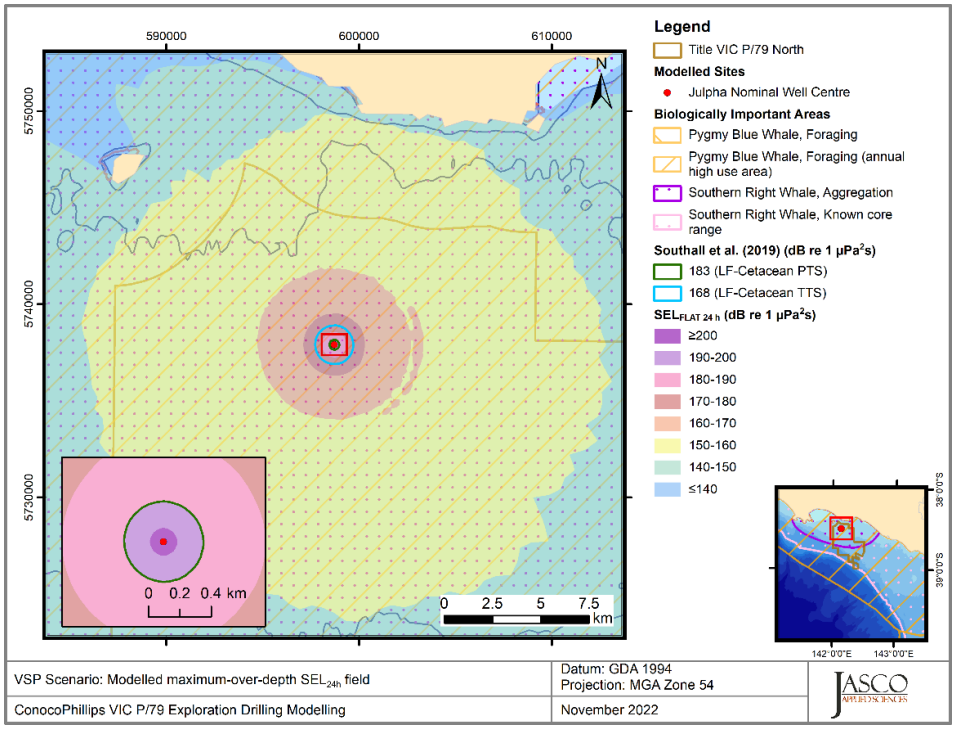


Figure 88. *VSP, VIC/P79 Julpha, multiple-pulse SEL, 130 impulses*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.2.3 for distances.

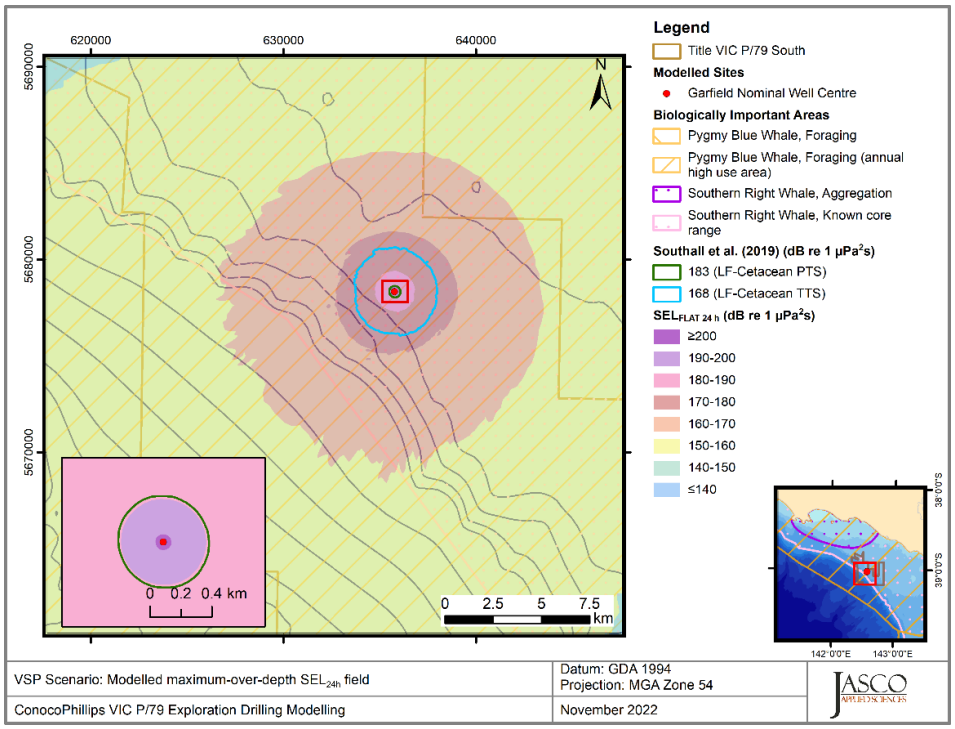


Figure 89. *VSP, VIC/P79 Garfield, multiple-pulse SEL, 130 impulses*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.2.3 for distances.

4.3. Boomer Sub-bottom Profiling

4.3.1. Per-Pulse Sound Fields

This section presents the per-pulse sound fields in terms of maximum-over-depth SPL, SEL, PK, and seafloor PK and PK-PK. The different metrics are presented for the following reasons:

Per-pulse SEL sound fields (

- Table 40) are used as inputs into the 24 h SEL scenario and to provide context for the range to 160 dB re 1 µPa^2·s, relevant for the EPBC Act Policy Statement 2.1 (DEWHA 2008). The 160 dB re 1 µPa^2·s level for impulsive sources from EPBC Act Policy Statement 2.1 (DEWHA 2008) is not reached.
- SPL sound fields (Table 41) were used to determine the distances to marine mammal and turtle behavioural thresholds (see Sections 2.1 and 2.2). They were also used to determine the maximum distance to the low-frequency weighted SPL 140 dB.
- PK metrics within the water column are relevant to thresholds and guidelines for marine mammals, sea turtles, fish, fish eggs and larvae (as well as plankton; see Sections 2.1 and 2.2). However, no thresholds were exceeded within the modelling resolution of 20 m.
- PK metrics at the seafloor are relevant to guidelines for fish, fish eggs and larvae (Section 3.4). However, no thresholds were exceeded and thus no tabulated results are included.
- PK-PK metrics at the seafloor are relevant to sound levels used in assessing effect on benthic invertebrates (see Section 2.3). However, no thresholds were exceeded and thus no tabulated results are included.

The SPL sound fields, and distances to relevant isopleths can be visualised on the contour maps presented in Section 4.2.4.1.

Table 40. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) from the Sub-bottom Profiling (SBP) boomer to modelled maximum-over-depth unweighted per-pulse sound exposure level (SEL) isopleths for the nominal locations.

Per-pulse SEL (L_E; dB re 1 µPa²·s)	Julpha		*Garfield*	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
140	0.03	0.03	0.03	0.03
130	0.15	0.15	0.19	0.18
120	0.48	0.46	0.50	0.48
110	1.32	1.25	1.42	1.35
100	3.21	3.00	4.57	3.92

Table 41. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) from the Sub-bottom Profiling (SBP) boomer to modelled maximum-over-depth unweighted per-pulse sound pressure level (SPL) isopleths for the nominal locations.

SPL (L_p; dB re 1 µPa)	Julpha		*Merope*	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
150	0.03	0.03	0.03	0.03
140	0.14	0.13	0.17	0.16
130	0.43	0.42	0.46	0.44
120	1.12	1.08	1.18	1.13
110	2.92	2.74	3.37	2.86

Table 42. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) from the Sub-bottom Profiling (SBP) boomer to modelled maximum-over-depth low-frequency cetacean weighted per-pulse sound pressure level (SPL) 140 dB isopleth for the nominal locations.

LF cetacean weighted SPL ($L_{p,LF}$; dB re 1 µPa)	Julpha		*Merope*	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
140[a]	0.12	0.12	0.13	0.13

[a] Marine mammal behavioural response threshold for a 50% probability of response for impulsive sound sources (adapted from Wood et al. (2012)).

4.3.2. Multiple Pulse Sound Fields

This section presents the sound fields in terms of SEL accumulated over 24 h of activity, for the modelled scenario (Table 11). Frequency-weighted SEL_{24h} sound fields were used to estimate the maximum and 95% distances (R_{max} and $R_{95\%}$; calculated as detailed in Appendix D.3) to marine mammal and marine turtle PTS and TTS thresholds (Table 43), and to estimate maximum distance and the area to injury and TTS guidelines for fish (Table 44).

Table 43. *SBP, multiple-pulse SEL*: Maximum-over-depth distances (in km) to frequency-weighted SEL_{24h} based PTS and TTS thresholds for marine mammals Southall et al. (2019) and sea turtles (Finneran et al. 2017) from Sub-bottom Profiling SBP) operations for nominal drilling locations, assuming different numbers of impulses during a 24 h period.

Hearing group	Threshold for SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	Julpha		Garfield	
		Distance R_{max} (km)	Ensonified Area (km²)	Distance R_{max} (km)	Ensonified Area (km²)
PTS					
LF cetaceans	183	–	–	–	–
HF cetaceans	185	–	–	–	–
VHF cetaceans	155	–	–	–	–
Otariid pinnipeds in water	203	–	–	–	–
Sea turtles	204	–	–	–	–
TTS					
LF cetaceans	168	–	1.01	–	1.01
HF cetaceans	170	–	–	–	–
VHF cetaceans	140	0.02	1.29	0.02	2.02
Otariid pinnipeds in water	188	–	–	–	–
Sea turtles	189	–	–	–	–

A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

Table 44. *SBP, multiple-pulse SEL:* Maximum ranges to SEL_{24h} based fish criteria (Popper et al. 2014) for the SBP 24h scenario.

Marine fauna group	Threshold for SEL_{24h} ($L_{E,24h}$; dB re 1 µPa²·s)	Julpha	Garfield
		Distance R_{max} (km)	Distance R_{max} (km)
Mortality and potential mortal injury			
I	219	–	–
II, fish eggs and fish larvae	210	–	–
III	207	–	–
Fish recoverable injury			
I	216	–	–
II, III	203	–	–
Fish TTS			
I, II, III	186	–	–

Fish I–No swim bladder; Fish II–Swim bladder not involved with hearing; Fish III–Swim bladder involved with hearing.
A dash indicates the threshold was not reached within the limits of the modelling resolution (20 m).

4.3.3. Sound Field Maps

Maps of the estimated sound fields, threshold contours, and isopleths of interest for the SBP operations are presented for the Julpha site. The per-pulse SPL sound fields for the nominal drill locations are presented as contour maps in Figure 90 and Figure 91. The SEL_{24h} sound fields are presented as contour maps in Figure 92 and Figure 93. These figures presents the unweighted SEL_{24h} in 10 dB steps, as well as the isopleths corresponding to thresholds or guidelines for which R_{max} is greater than 20 m, the modelling resolution.

4.3.3.1. Maximum-over-depth Per-Pulse Sound Fields

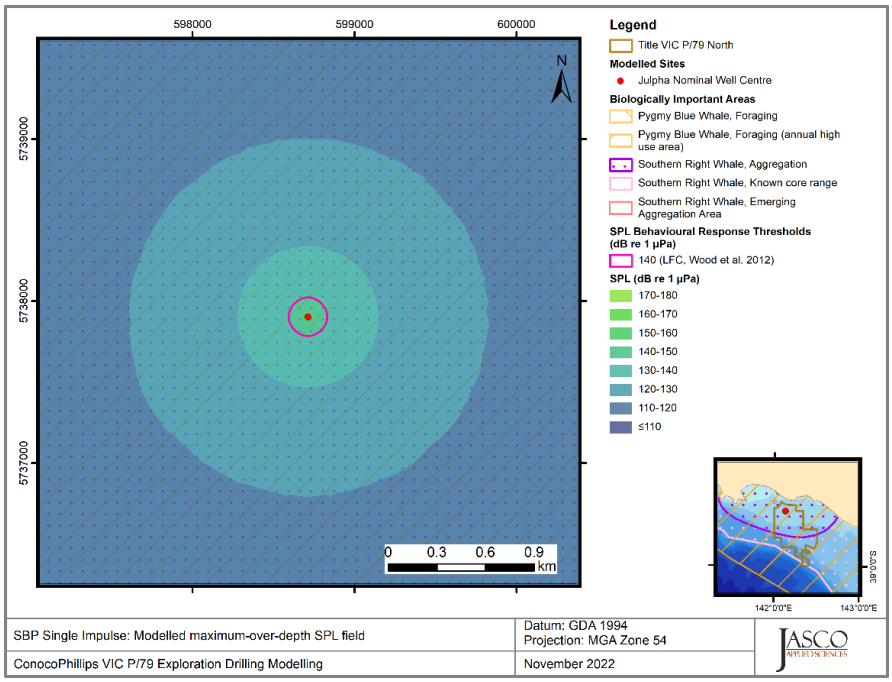


Figure 90. *SBP, VIC/P79 Julpha, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleth of behavioural response thresholds for marine mammals and turtles.

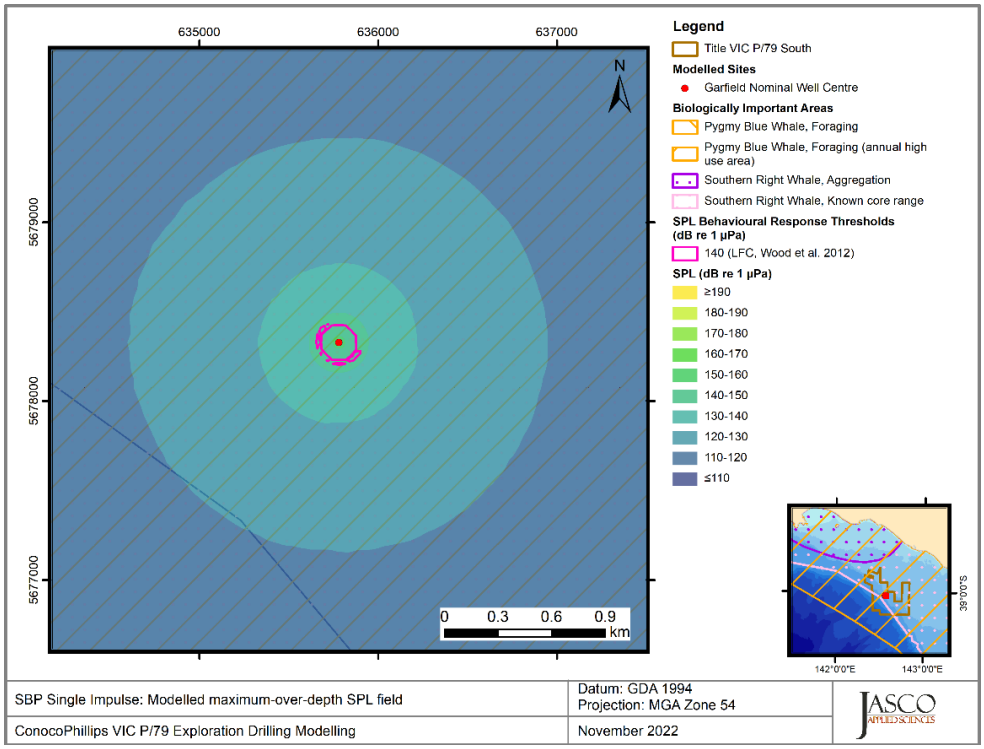


Figure 91. *SBP, VIC/P79 Garfield, SPL*: Sound level contour map showing the unweighted maximum-over-depth sound field in 10 dB steps, and the isopleth of behavioural response thresholds for marine mammals and turtles.

4.3.3.2. Accumulated Multi-Pulse Sound Fields

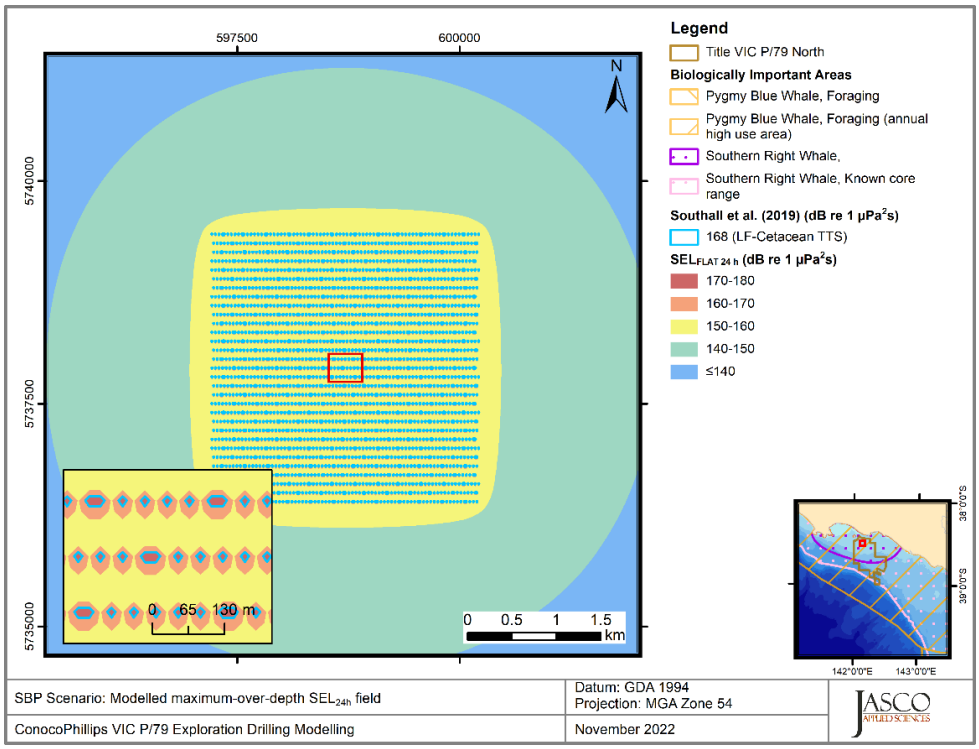


Figure 92. *SBP, VIC/P79 Julpha, multiple-pulse SEL_{24h}*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.2.3 for distances.

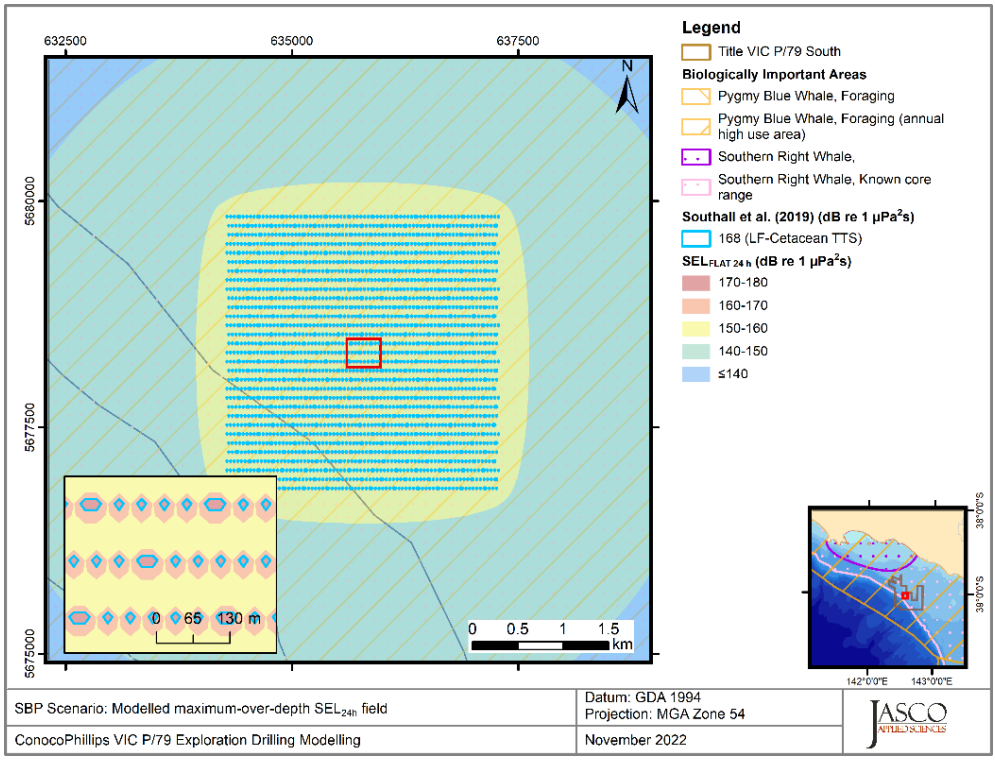


Figure 93. *SBP, VIC/P79 Garfield, multiple-pulse SEL_{24h}*: Sound level contour map showing unweighted maximum-over-depth SEL_{24h} results, along with isopleths for temporary threshold shift (TTS) thresholds. Thresholds for permanent threshold shift (PTS) and some thresholds for TTS were either not reached or were small enough such that they could not be displayed on a map. Refer to the radii tables in Section 4.2.3 for distances.

5. Discussion and Conclusion

This modelling study presented underwater sound levels associated with the Otway Exploration Drilling Program. Sound fields were modelled for non-impulsive vessel and drilling noise sources, as well as an impulsive source (VSP and SBP). The model accounted for characteristics of each source (see Sections 3.1 and 3.2), as well as localised bathymetric variation, geoacoustic parameters, and sound speed variation throughout the water column (see Appendix D.2).

Both the MODU and AHTS were modelled as omnidirectional sources, and the VSP source showed little variation in directionality (see Appendix B.3), hence the shapes of the noise footprints for each modelled scenario are nearly entirely down to environmental features.

The studied modelling locations, with the exception of Garfield West, are on the continental shelf, and variations in bathymetry close to the source are gradual, resulting in broadly symmetric sound fields. The proximity of Garfield West to the continental slope, combined with its more reflective seabed resulted in increased ranges to SPL thresholds compared to similar scenarios modelled at sites further inshore.

The sound speed profile (see Appendix D.2.2) was derived from data from the US Naval Oceanographic Office's Generalized Digital Environmental Model V 3.0 (GDEM; Teague et al. 1990, Carnes 2009). The month of July was chosen based on an analysis of the temperature, salinity and sound speed profiles extracted from this database. The final sound speed profile consisted of a composite profile representative of the environmental conditions likely to occur within the modelled area to capture propagation effects associated with shallow and deep-water regimes.

In T/49P, the sound speed profile was primarily downwards refracting, down to 1000 m depth, apart from a moderate surface duct. This surface duct traps high-frequency energy near the sea surface that would otherwise dissipate more rapidly in range due to seabed losses. However, at only approximately 40 m deep, this duct is not deep enough to trap energy below approximately 550 Hz. For all the modelled sources, most sound energy propagates at frequencies lower than this. However, there is enough sound energy at high frequency that, when trapped, can propagate with little loss and can produce higher levels near the sea-surface than scenarios where no surface duct is present.

In the northern extent of VIC/P79, the sound speed profile was primarily downwards refracting down to 1000 m depth, however this only influences the sound fields at ranges well beyond those associated with the effect thresholds being considered. The sound fields closer to the sources, and thus in depths less than 200 m, experience a generally linear sound speed profile.

In the southern extent of VIC/P79, the sound speed profile was primarily downwards refracting down to 1200 m depth, where it becomes upwards refracting. This downward refraction reduces propagation for any region with a depth less than 1200 m through sea-bed absorption, reducing distances to thresholds for the Essington and Garfield Sites. However, the sound emitted from the Garfield West Site in the offshore direction reaches this upward refracting layer, and experiences increased propagation as seen in the maps.

For the results tables presented in Section 4, where a dash is used in place of a horizontal distance, these thresholds may or may not be reached. Due to the discretely sampled 20 m calculation grids of the modelled sound fields, distances to these levels could not be estimated for practicable computational purposes. It is likely that SPL isopleths could be reached at distances between the source and the modelled horizontal resolution (20 m); however, distances to injurious accumulated SEL thresholds may not be reached at any range greater than the source due the species-specific frequency weighing functions. Additionally, if close-to-source radii are comparable to the dimensions of the modelled vessel (MODU or AHTS) then they may only be reached within close proximity to a vessel, if at all.

Additionally, SEL_{24h} is a cumulative metric that reflects the dosimetric impact of noise levels within 24 h based on the assumption that an animal is consistently exposed to such noise levels at a fixed position. The corresponding SEL_{24h} radii therefore represent a worst-case scenario. More realistically, marine mammals (as well as fish and turtles) would not stay in the same location for 24 h. Therefore, a reported radius for SEL_{24h} criteria does not mean that marine fauna travelling within this radius of the source will be injured, but rather that an animal could be exposed to the sound level associated with impairment if it remained in that location for 24 h.

Key findings from the study include:

- In T/49P: In general, the results are similar at all modelled locations, for the vessels and for the VSP operations. The differences between British Admiral and British Admiral West are relatively minor and considered for only two scenarios to provide a comparison point. The differences are shown in Table 45, and demonstrate the influence of the proximity of the shelf edge to British Admiral West. Additional analysis of the modelling work presented in this report for T/49P has been conducted (Appendix F) that indicates that it would be reasonable to represent the potential ranges to effect for drilling and associated operations within approximately the 110–125 m contour through using the presented results. Therefore, all potential drilling locations in T/49P within the operational area except for the very offshore boundary of Seal Rocks in two locations (near the canyon heads), can be represented through the presented results.
- In the northern extent of VIC/P79: Despite the 20 m depth difference, or approximately a 30% difference in these shallow water depths, and similar geology between sites, there is only minor variations in the ranges to thresholds for the vessel related activities at sites.
- In the southern extent of VIC/P79: Despite the 17 m (18%) depth difference between Essington and Garfield, and Garfield's placement approximately 10 km closer to the shelf edge and similar geology between the two sites, the variations observed in the ranges to thresholds for the vessel related activities at both sites are minimal. While the proximity to the shelf edge does not greatly affect the results of these inshore sites, Garfield West, located effectively on the shelf edge, clearly demonstrates the extended ranges to threshold expected in the offshore direction. Additionally, Garfield West has a highly reflective seabed geology, contributing to its favourable propagation conditions. The reason this extended propagation is not observed in the near shelf sites is due to the combination of sources and the source depths used in the modelling, the almost linear sound speed profile in the top 200 m and the attenuating influence of the calcarenite seafloor.

Table 45. Comparison I between the results in Table 20 for British Admiral compared to British Admiral West (positive values indicate the range is further at British Admiral, negative the range is further at British Admiral West).

British Admiral compared to British Admiral West				
SPL (L_p; dB re 1 µPa)	Scenario 3: MODU		Scenario 4: MODU+Supply vessel	
	ΔR_{max} (km)	$\Delta R_{95\%}$ (km)	ΔR_{max} (km)	$\Delta R_{95\%}$ (km)
170[a]	-	-	0	0
160	0.02	0.02	0	0
158[b]	0.02	0.02	0.03	0.02
150	0	0	0.02	0.02
140	0	0	0	-0.01
130	-0.01	-0.01	-0.04	-0.05
120[c]	-0.07	0.05	-0.4	-0.1
110	0.21	0.11	-2	-2.5

Glossary

Unless otherwise stated in an entry, these definitions are consistent with ISO 80000-3 (2017).

1/3-octave

One third of an octave. *Note*: A one-third octave is approximately equal to one decidecade (1/3 oct ≈ 1.003 ddec).

1/3-octave-band

Frequency band whose bandwidth is one one-third octave. *Note*: The bandwidth of a one-third octave-band increases with increasing centre frequency.

90%-energy time window

The time interval over which the cumulative energy rises from 5 to 95% of the total pulse energy. This interval contains 90% of the total pulse energy. Symbol: T_{90}.

90% sound pressure level (90% SPL)

The sound pressure level calculated over the 90%-energy time window of a pulse.

acoustic impedance

The ratio of the sound pressure in a medium to the volume flow rate of the medium through a specified surface due to the sound wave.

acoustic noise

Sound that interferes with an acoustic process.

ambient sound

Sound that would be present in the absence of a specified activity, usually a composite of sound from many sources near and far, e.g., shipping vessels, seismic activity, precipitation, sea ice movement, wave action, and biological activity.

attenuation

The gradual loss of acoustic energy from absorption and scattering as sound propagates through a medium.

audiogram

A graph or table of hearing threshold as a function of frequency that describes the hearing sensitivity of an animal over its hearing range.

auditory frequency weighting

The process of applying an auditory frequency weighting function. In human audiometry, C-weighting is the most commonly used function, an example for marine mammals are the auditory frequency weighting functions published by Southall et al. (2007).

auditory frequency weighting function

Frequency weighting function describing a compensatory approach accounting for a species' (or functional hearing group's) frequency-specific hearing sensitivity. Example hearing groups are low-, mid-, and high-frequency cetaceans, phocid and otariid pinnipeds.

azimuth

A horizontal angle relative to a reference direction, which is often magnetic north or the direction of travel. In navigation it is also called bearing.

background noise

Combination of ambient sound, acoustic self-noise, and sonar reverberation. Ambient sound detected, measured, or recorded with a signal is part of the background noise.

bandwidth

The range of frequencies over which a sound occurs. Broadband refers to a source that produces sound over a broad range of frequencies (e.g., seismic airguns, vessels) whereas narrowband sources produce sounds over a narrow frequency range (e.g., sonar) (ANSI S1.13-2005 (R2010)).

bar

Unit of pressure equal to 100 kPa, which is approximately equal to the atmospheric pressure on Earth at sea level. 1 bar is equal to 10^5 Pa or 10^{11} µPa.

boxcar averaging

A signal smoothing technique that returns the averages of consecutive segments of a specified width.

broadband level

The total level measured over a specified frequency range.

cavitation

A rapid formation and collapse of vapor cavities (i.e., bubbles or voids) in water, most often caused by a rapid change in pressure. Fast-spinning vessel propellers typically cause cavitation, which creates a lot of noise.

cetacean

Any animal in the order Cetacea. These are aquatic species and include whales, dolphins, and porpoises.

compressional wave

A mechanical vibration wave in which the direction of particle motion is parallel to the direction of propagation. Also called primary wave or P-wave.

conductivity-temperature-depth (CTD)

Measurement data of the ocean's conductivity, temperature, and depth; used to compute sound speed and salinity.

continuous sound

A sound whose sound pressure level remains above ambient sound during the observation period. A sound that gradually varies in intensity with time, for example, sound from a marine vessel.

decade

Logarithmic frequency interval whose upper bound is ten times larger than its lower bound (ISO 80000-3:2006).

decidecade

One tenth of a decade. *Note*: An alternative name for decidecade (symbol ddec) is “one-tenth decade”. A decidecade is approximately equal to one third of an octave (1 ddec ≈ 0.3322 oct) and for this reason is sometimes referred to as a “one-third octave”.

decidecade band

Frequency band whose bandwidth is one decidecade. *Note*: The bandwidth of a decidecade band increases with increasing centre frequency.

decibel (dB)

Unit of level used to express the ratio of one value of a power quantity to another on a logarithmic scale. Unit: dB.

energy source level

A property of a sound source obtained by adding to the sound exposure level measured in the far field the propagation loss from the acoustic centre of the source to the receiver position. Unit: decibel (dB). Reference value: 1 μPa^{2}m^{2}s.

energy spectral density

Ratio of energy (time-integrated square of a specified field variable) to bandwidth in a specified frequency band f_1 to f_2. In equation form, the energy spectral density E_f is given by:

$$E_f = \frac{2\int_{f_1}^{f_2} |X(f)|^2 \, \mathrm{d}f}{f_2 - f_1},$$

where $X(f)$ is the Fourier transform of the field variable $x(t)$

$$X(f) = \int_{-\infty}^{+\infty} x(t) \exp(-2\pi \mathrm{i} f t) \, \mathrm{d}t \, .$$

The field variable $x(t)$ is a scalar quantity, such as sound pressure. It can also be the magnitude or a specified component of a vector quantity such as sound particle displacement, sound particle velocity, or sound particle acceleration. The unit of energy spectral density depends on the nature of x, as follows:

- If × = sound pressure: Pa^2 s/Hz
- If × = sound particle displacement: m^2 s/Hz
- If × = sound particle velocity: (m/s)^2 s/Hz
- If × = sound particle acceleration: (m/s^2)^2 s/Hz

The factor of two on the right-hand side of the equation for E_f is needed to express a spectrum that is symmetric about $f = 0$, in terms of positive frequencies only. See entry 3.1.3.9 of ISO 18405 (2017).

energy spectral density level

The level ($L_{E,f}$) of the **energy spectral density** (E_f). Unit: decibel (dB).

$$L_{E,f} := 10 \log_{10}\left(E_f / E_{f,0}\right) \mathrm{dB} \, .$$

The frequency band and integration time should be specified.

As with **energy spectral density**, energy spectral density level can be expressed in terms of various field variables (e.g., sound pressure, sound particle displacement). The reference value ($E_{f,0}$) for energy spectral density level depends on the nature of field variable.

energy spectral density source level

A property of a sound source obtained by adding to the energy spectral density level of the sound pressure measured in the far field the propagation loss from the acoustic centre of the source to the receiver position. Unit: decibel (dB). Reference value: 1 $\mu Pa^2m^2s/Hz$.

ensonified

Exposed to sound.

far field

The zone where, to an observer, sound originating from an array of sources (or a spatially distributed source) appears to radiate from a single point.

Fourier transform (or Fourier synthesis)

A mathematical technique which, although it has varied applications, is referenced in the context of this report as a method used in the process of deriving a spectrum estimate from time-series data (or the reverse process, termed the inverse Fourier transform). A computationally efficient numerical algorithm for computing the Fourier transform is known as fast Fourier transform (FFT).

flat weighting

Term indicating that no frequency weighting function is applied. Synonymous with unweighted.

frequency

The rate of oscillation of a periodic function measured in cycles-per-unit-time. The reciprocal of the period. Unit: hertz (Hz). Symbol: f. 1 Hz is equal to 1 cycle per second.

frequency weighting

The process of applying a frequency weighting function.

frequency-weighting function

The squared magnitude of the sound pressure transfer function. For sound of a given frequency, the frequency weighting function is the ratio of output power to input power of a specified filter, sometimes expressed in decibels. Examples include the following:

- *Auditory frequency weighting function*: compensatory frequency weighting function accounting for a species' (or functional hearing group's) frequency-specific hearing sensitivity.
- *System frequency weighting function*: frequency weighting function describing the sensitivity of an acoustic acquisition system, typically consisting of a hydrophone, one or more amplifiers, and an analogue to digital converter.

geoacoustic

Relating to the acoustic properties of the seabed.

hearing group

Category of animal species when classified according to their hearing sensitivity and to the susceptibility to sound. Examples for marine mammals include very low-frequency (VLF) cetaceans, low-frequency (LF) cetaceans, mid-frequency (MF) cetaceans, high-frequency (HF) cetaceans, very high-frequency (VHF) cetaceans, otariid pinnipeds in water (OPW), phocid pinnipeds in water (PPW), sirenians (SI), other marine carnivores in air (OCA), and other marine carnivores in water (OCW) (NMFS 2018, Southall et al. 2019). See **auditory frequency weighting functions**, which are often applied to these groups. Examples for fish include species for which the swim bladder is involved in

hearing, species for which the swim bladder is not involved in hearing, and species without a swim bladder (Popper et al. 2014).

hearing threshold

The sound pressure level for any frequency of the hearing group that is barely audible for a given individual for specified background noise during a specific percentage of experimental trials.

hertz (Hz)

A unit of frequency defined as one cycle per second.

high-frequency (HF) cetacean

See **hearing group**.

impulsive sound

Qualitative term meaning sounds that are typically transient, brief (less than 1 second), broadband, with rapid rise time and rapid decay. They can occur in repetition or as a single event. Examples of impulsive sound sources include explosives, seismic airguns, and impact pile drivers.

isopleth

A line drawn on a map through all points having the same value of some quantity.

knot

One nautical mile per hour. Symbol: kn.

level

A measure of a quantity expressed as the logarithm of the ratio of the quantity to a specified reference value of that quantity. Examples include sound pressure level, sound exposure level, and peak sound pressure level. For example, a value of sound exposure level with reference to 1 μPa^2 s can be written in the form × dB re 1 μPa^2 s.

low-frequency (LF) cetacean

See **hearing group**.

median

The 50th percentile of a statistical distribution.

mid-frequency (MF) cetacean

See **hearing group**.

monopole source level (MSL)

A source level that has been calculated using an acoustic model that accounts for the effect of the sea-surface and seabed on sound propagation, assuming a point-like (monopole) sound source. Also see **radiated noise level**.

Monte Carlo simulation

The method of investigating the distribution of a non-linear multi-variate function by random sampling of all of its input variable distributions.

M-weighting

See **auditory frequency weighting function** (as proposed by Southall et al. 2007).

mysticete

A suborder of cetaceans that use baleen plates to filter food from water. Members of this group include rorquals (Balaenopteridae), right whales (Balaenidae), and grey whales (*Eschrichtius robustus*).

N percent exceedance level

The sound level exceeded *N* % of the time during a specified time interval. Also see **percentile level**.

non-impulsive sound

Sound that is not an impulsive sound. A non-impulsive sound is not necessarily a continuous sound.

octave

The interval between a sound and another sound with double or half the frequency. For example, one octave above 200 Hz is 400 Hz, and one octave below 200 Hz is 100 Hz.

odontocete

The presence of teeth, rather than baleen, characterizes these whales. Members of the Odontoceti are a suborder of cetaceans, a group comprised of whales, dolphins, and porpoises. The skulls of toothed whales are mostly asymmetric, an adaptation for their echolocation. This group includes sperm whales, killer whales, belugas, narwhals, dolphins, and porpoises.

otariid

A common term used to describe members of the Otariidae, eared seals, commonly called sea lions and fur seals. Otariids are adapted to a semi-aquatic life; they use their large fore flippers for propulsion. Their ears distinguish them from phocids. Otariids are one of the three main groups in the superfamily Pinnipedia; the other two groups are phocids and walrus.

otariid pinnipeds in water (OPW)

See **hearing group**.

other marine carnivores in water (OCW)

See **hearing group**.

parabolic equation method

A computationally efficient solution to the acoustic wave equation that is used to model propagation loss. The parabolic equation approximation omits effects of back-scattered sound, simplifying the computation of propagation loss. The effect of back-scattered sound is negligible for most ocean-acoustic propagation problems.

peak sound pressure level (zero-to-peak sound pressure level)

The level ($L_{p,pk}$ or L_{pk}) of the squared maximum magnitude of the sound pressure (p_{pk}^2).
Unit: decibel (dB). Reference value (p_0^2) for sound in water: 1 µPa^2.

$$L_{p,\mathrm{pk}} := 10\log_{10}\left(p_{\mathrm{pk}}^2/p_0^2\right)\mathrm{dB} = 20\log_{10}\left(p_{\mathrm{pk}}/p_0\right)\mathrm{dB}$$

The frequency band and time window should be specified. Abbreviation: PK or Lpk.

peak-to-peak sound pressure

The difference between the maximum and minimum sound pressure over a specified frequency band and time window. Unit: pascal (Pa).

percentile level

The sound level not exceeded *N* % of the time during a specified time interval. The *N*th percentile level is equal to the (100−*N*)% exceedance level. Also see ***N* percent exceedance level**.

permanent threshold shift (PTS)

An irreversible loss of hearing sensitivity caused by excessive noise exposure. PTS is considered auditory injury.

phocid

A common term used to describe all members of the family Phocidae. These true/earless seals are more adapted to in-water life than are otariids, which have more terrestrial adaptations. Phocids use their hind flippers to propel themselves. Phocids are one of the three main groups in the superfamily Pinnipedia; the other two groups are otariids and walrus.

phocid pinnipeds in water (PPW)

See **hearing group**.

pinniped

A common term used to describe all three groups that form the superfamily Pinnipedia: phocids (true seals or earless seals), otariids (eared seals or fur seals and sea lions), and walrus.

point source

A source that radiates sound as if from a single point.

power spectral density

Generic term, formally defined as power in a unit frequency band. Unit: watt per hertz (W/Hz). The term is sometimes loosely used to refer to the spectral density of other parameters such as squared sound pressure. ratio of **energy spectral density**, E_f, to time duration, Δt, in a specified temporal observation window. In equation form, the power spectral density P_f is given by:

$$P_f = \frac{E_f}{\Delta t}.$$

Power spectral density can be expressed in terms of various field variables (e.g., sound pressure, sound particle displacement).

power spectral density level

The level ($L_{P,f}$) of the **power spectral density** (P_f). Unit: decibel (dB).

$$L_{P,f} := 10 \log_{10}\left(P_f / P_{f,0}\right) \text{dB}.$$

The frequency band and integration time should be specified.

As with **power spectral density**, power spectral density level can be expressed in terms of various field variables (e.g., sound pressure, sound particle displacement). The reference value ($P_{f,0}$) for power spectral density level depends on the nature of field variable.

power spectral density source level

A property of a sound source obtained by adding to the power spectral density level of the sound pressure measured in the far field the propagation loss from the acoustic centre of the source to the receiver position. Unit: decibel (dB). Reference value: 1 $\mu Pa^2m^2/Hz$.

pressure, acoustic

The deviation from the ambient pressure caused by a sound wave. Also called sound pressure. Unit: pascal (Pa).

pressure, hydrostatic

The pressure at any given depth in a static liquid that is the result of the weight of the liquid acting on a unit area at that depth, plus any pressure acting on the surface of the liquid. Unit: pascal (Pa).

propagation loss (PL)

Difference between a source level (SL) and the level at a specified location, PL(x) = SL − L(x). Also see **transmission loss**.

radiated noise level (RNL)

A source level that has been calculated assuming sound pressure decays geometrically with distance from the source, with no influence of the sea-surface and seabed. Also see **monopole source level**.

received level

The level measured (or that would be measured) at a defined location. The type of level should be specified.

reference values

standard underwater references values used for calculating sound **levels**, e.g., the reference value for expressing sound pressure level in decibels is 1 µPa.

Quantity	Reference value
Sound pressure	1 µPa
Sound exposure	1 μPa^2 s
Sound particle displacement	1 pm
Sound particle velocity	1 nm/s
Sound particle acceleration	1 $\mu m/s^2$

rms

abbreviation for root-mean-square.

shear wave

A mechanical vibration wave in which the direction of particle motion is perpendicular to the direction of propagation. Also called a secondary wave or S-wave. Shear waves propagate only in solid media, such as sediments or rock. Shear waves in the seabed can be converted to compressional waves in water at the water-seabed interface.

sound

A time-varying disturbance in the pressure, stress, or material displacement of a medium propagated by local compression and expansion of the medium.

sound exposure

Time integral of squared sound pressure over a stated time interval. The time interval can be a specified time duration (e.g., 24 h) or from start to end of a specified event (e.g., a pile strike, an airgun pulse, a construction operation). Unit: Pa^2 s.

sound exposure level

The level (L_E) of the sound exposure (E). Unit: decibel (dB). Reference value (E_0) for sound in water: 1 μPa^2 s.

$$L_E := 10 \log_{10}(E/E_0)\,\text{dB} = 20 \log_{10}\left(E^{1/2}/E_0^{1/2}\right)\,\text{dB}$$

The frequency band and integration time should be specified. Abbreviation: SEL.

sound exposure spectral density

Distribution as a function of frequency of the time-integrated squared sound pressure per unit bandwidth of a sound having a continuous spectrum. Unit: Pa^2 s/Hz.

sound field

Region containing sound waves.

sound intensity

Product of the sound pressure and the sound particle velocity. The magnitude of the sound intensity is the sound energy flowing through a unit area perpendicular to the direction of propagation per unit time.

sound pressure

The contribution to total pressure caused by the action of sound.

sound pressure level (rms sound pressure level)

The level ($L_{p,\text{rms}}$) of the time-mean-square sound pressure (p^2_{rms}). Unit: decibel (dB). Reference value (p_0^2) for sound in water: 1 μPa^2.

$$L_{p,\text{rms}} := 10 \log_{10}(p^2_{\text{rms}}/p_0^2)\,\text{dB} = 20 \log_{10}(p_{\text{rms}}/p_0)\,\text{dB}$$

The frequency band and averaging time should be specified. Abbreviation: SPL or Lrms.

sound speed profile

The speed of sound in the water column as a function of depth below the water surface.

soundscape

The characterization of the ambient sound in terms of its spatial, temporal, and frequency attributes, and the types of sources contributing to the sound field.

source level (SL)

A property of a sound source obtained by adding to the sound pressure level measured in the far field the propagation loss from the acoustic centre of the source to the receiver position. Unit: decibel (dB). Reference value: 1 $\mu Pa^2 m^2$.

spectrogram

A visual representation of acoustic amplitude compared with time and frequency.

spectrum

An acoustic signal represented in terms of its power, energy, mean-square sound pressure, or sound exposure distribution with frequency.

surface duct

The upper portion of a water column within which the sound speed profile gradient causes sound to refract upward and therefore reflect off the surface resulting in relatively long-range sound propagation with little loss.

temporary threshold shift (TTS)

Reversible loss of hearing sensitivity. TTS can be caused by noise exposure.

thermocline

The depth interval near the ocean surface that experiences temperature gradients due to warming or cooling by heat conduction from the atmosphere and by warming from solar heating.

transmission loss (TL)

The difference between a specified level at one location and that at a different location, TL(x1,x2) = L(x1) − L(x2). Also see **propagation loss**.

unweighted

Term indicating that no frequency weighting function is applied. Synonymous with flat weighting.

very high-frequency (VHF) cetacean

See **hearing group**.

very low-frequency (VLF) cetacean

See **hearing group**.

wavelength

Distance over which a wave completes one cycle of oscillation. Unit: metre (m). Symbol: λ.

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Appendix A. Acoustic Metrics

This section describes in detail the acoustic metrics, impact criteria, and frequency weighting relevant to the modelling study.

A.1. Pressure Related Acoustic Metrics

Underwater sound pressure amplitude is measured in decibels (dB) relative to a fixed reference pressure of p_0 = 1 µPa. Because the perceived loudness of sound, especially pulsed sound such as from seismic airguns, pile driving, and sonar, is not generally proportional to the instantaneous acoustic pressure, several sound level metrics are commonly used to evaluate sound and its effects on marine life. Here we provide specific definitions of relevant metrics used in the accompanying report. Where possible, we follow International Organization for Standardization definitions and symbols for sound metrics (e.g., ISO 2017, ANSI S1.1-2013).

The sound pressure level (SPL or L_p; dB re 1 µPa) is the root-mean-square (rms) pressure level in a stated frequency band over a specified time window (T; s). It is important to note that SPL always refers to an rms pressure level and therefore not instantaneous pressure:

$$L_p = 10 \log_{10} \left(\frac{1}{T} \int_T g(t)\, p^2(t)\, dt \Big/ p_0^2 \right) \text{dB} \qquad \text{(A-1)}$$

where $g(t)$ is an optional time weighting function. In many cases, the start time of the integration is marched forward in small time steps to produce a time-varying SPL function.

The sound exposure level (SEL or L_E; dB re 1 µPa^2·s) is the time-integral of the squared acoustic pressure over a duration (T):

$$L_E = 10 \log_{10} \left(\int_T p^2(t)\, dt \Big/ T_0 p_0^2 \right) \text{dB} \qquad \text{(A-2)}$$

where T_0 is a reference time interval of 1 s. SEL continues to increase with time when non-zero pressure signals are present. It is a dose-type measurement, so the integration time applied must be carefully considered for its relevance to impact to the exposed recipients.

SEL can be calculated over a fixed duration, such as the time of a single event or a period with multiple acoustic events. When applied to pulsed sounds, SEL can be calculated by summing the SEL of the N individual pulses. For a fixed duration, the square pressure is integrated over the duration of interest. For multiple events, the SEL can be computed by summing (in linear units) the SEL of the N individual events:

$$L_{E,N} = 10 \log_{10} \left(\sum_{i=1}^{N} 10^{\frac{L_{E,i}}{10}} \right) \text{dB}\,. \qquad \text{(A-3)}$$

If applied, the frequency weighting of an acoustic event should be specified, as in the case of weighted SEL (e.g., $L_{E,LFC,24h}$; Appendix 0). The use of fast, slow, or impulse exponential-time-averaging or other time-related characteristics should also be specified.

A.2. Decidecade Band Analysis

The distribution of a sound's power with frequency is described by the sound's spectrum. The sound spectrum can be split into a series of adjacent frequency bands. Splitting a spectrum into 1 Hz wide bands, called passbands, yields the power spectral density of the sound. This splitting of the spectrum into passbands of a constant width of 1 Hz, however, does not represent how animals perceive sound.

Because animals perceive exponential increases in frequency rather than linear increases, analysing a sound spectrum with passbands that increase exponentially in size better approximates real-world scenarios. In underwater acoustics, a spectrum is commonly split into decidecade bands, which are one tenth of a decade wide. A decidecade is sometimes referred to as a "decidecade" because one tenth of a decade is approximately equal to one third of an octave. Each decade represents a factor 10 in sound frequency. Each octave represents a factor 2 in sound frequency. The centre frequency of the ith band, $f_c(i)$, is defined as:

$$f_c(i) = 10^{\frac{i}{10}} \text{ kHz} \tag{A-4}$$

and the low (f_{lo}) and high (f_{hi}) frequency limits of the ith decade band are defined as:

$$f_{lo,i} = 10^{\frac{-1}{20}} f_c(i) \quad \text{and} \quad f_{hi,i} = 10^{\frac{1}{20}} f_c(i) \tag{A-5}$$

The decidecade bands become wider with increasing frequency, and on a logarithmic scale the bands appear equally spaced (Figure A-1). The acoustic modelling spans from band 10 (f_c (10) = 10 Hz) to band 44 ($f_c(44)$ = 25 kHz).

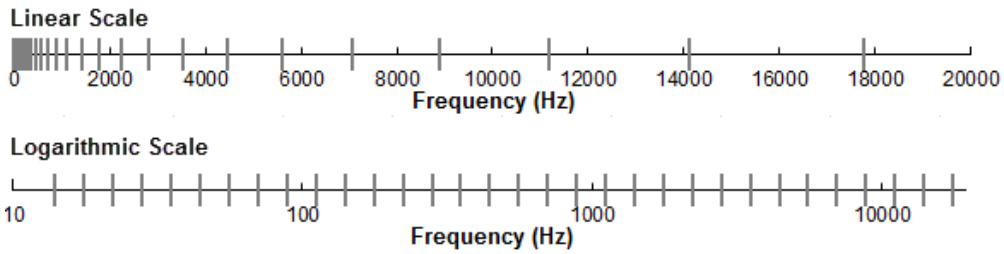


Figure A-1. Decidecade frequency bands (vertical lines) shown on a linear frequency scale and a logarithmic scale.

The sound pressure level in the ith band ($L_{p,i}$) is computed from the spectrum $S(f)$ between $f_{lo,i}$ and $f_{hi,i}$:

$$L_{p,i} = 10\, log_{10} \int_{f_{lo,i}}^{f_{hi,i}} S(f)\, \mathrm{d}f \text{ dB} \tag{A-6}$$

Summing the sound pressure level of all the bands yields the broadband sound pressure level:

$$\text{Broadband SPL} = 10 \log_{10} \sum_i 10^{\frac{L_{p,i}}{10}} \text{ dB} \tag{A-7}$$

Figure A-2 shows an example of how the decidecade band sound pressure levels compare to the sound pressure spectral density levels of an ambient noise signal. Because the decidecade bands are wider than 1 Hz, the decidecade band SPL is higher than the spectral levels at higher frequencies. Acoustic modelling of decidecade bands requires less computation time than 1 Hz bands and still resolves the frequency-dependence of the sound source and the propagation environment.

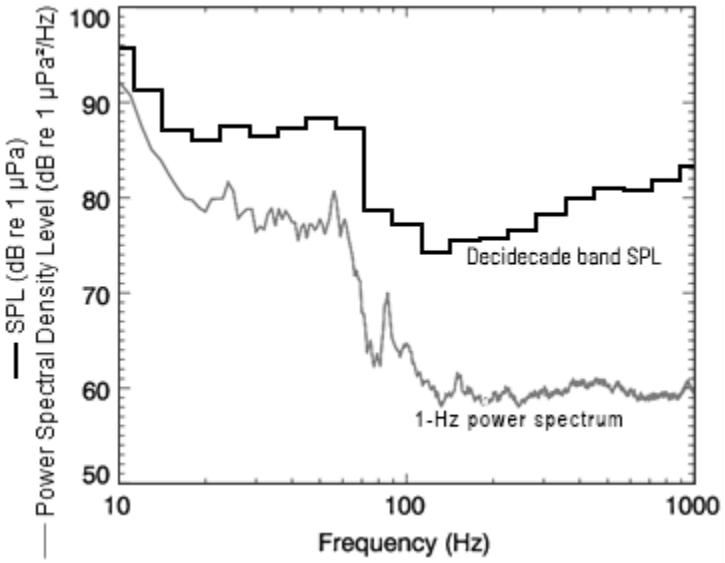


Figure A-2. Sound pressure spectral density levels and the corresponding decidecade band sound pressure levels of example ambient noise shown on a logarithmic frequency scale. Because the decidecade bands are wider with increasing frequency, the decidecade-octave-band SPL is higher than the power spectrum.

A.3. Marine Mammal Noise Effect Criteria

It has been long recognised that marine mammals can be adversely affected by underwater anthropogenic noise. For example, Payne and Webb (1971) suggest that communication distances of fin whales are reduced by shipping sounds. Subsequently, similar concerns arose regarding effects of other underwater noise sources and the possibility that impulsive sources—primarily airguns used in seismic surveys—could cause auditory injury. This led to a series of workshops held in the late 1990s, conducted to address acoustic mitigation requirements for seismic surveys and other underwater noise sources (NMFS 1998, ONR 1998, Nedwell and Turnpenny 1998, HESS 1999, Ellison and Stein 1999). In the years since these early workshops, a variety of thresholds have been proposed for auditory injury, impairment, and disturbance. The following sections summarise the recent development of thresholds; however, this field remains an active research topic.

A.3.1. Injury and Hearing Sensitivity Changes

In recognition of shortcomings of the SPL-only based auditory injury criteria, in 2005 NMFS sponsored the Noise Criteria Group to review literature on marine mammal hearing to propose new noise exposure criteria. Some members of this expert group published a landmark paper (Southall et al. 2007) that suggested assessment methods similar to those applied for humans. The resulting recommendations introduced dual auditory injury criteria for impulsive sounds that included peak pressure level thresholds and SEL_{24h} thresholds, where the subscripted 24h refers to the accumulation period for calculating SEL. The peak pressure level criterion is not frequency weighted whereas SEL_{24h} is frequency weighted according to one of four marine mammal species hearing groups: low-, mid- and high-frequency cetaceans (LF, MF, and HF cetaceans, respectively) and Pinnipeds in Water (PINN). These weighting functions are referred to as M-weighting filters (analogous to the A-weighting filter for humans; see Appendix 0). The SEL_{24h} thresholds were obtained by extrapolating measurements of onset levels of Temporary Threshold Shift (TTS) in belugas by the amount of TTS required to produce Permanent Threshold Shift (PTS) in chinchillas. The Southall et al. (2007) recommendations do not specify an exchange rate, which suggests that the thresholds are the same regardless of the duration of exposure (i.e., it implies a 3 dB exchange rate).

Wood et al. (2012) refined Southall et al.'s (2007) thresholds, suggesting lower PTS and TTS values for LF and HF cetaceans while retaining the filter shapes. Their revised thresholds were based on TTS-onset levels in harbour porpoises from Lucke et al. (2009), which led to a revised impulsive sound PTS threshold for HF cetaceans of 179 dB re 1 $\mu Pa^2 \cdot s$. Because there were no data available for baleen whales, Wood et al. (2012) based their recommendations for LF cetaceans on results obtained from MF cetacean studies. In particular they referenced the Finneran and Schlundt (2010) research, which found mid-frequency cetaceans are more sensitive to non-impulsive sound exposure than Southall et al. (2007) assumed. Wood et al. (2012) thus recommended a more conservative TTS-onset level for LF cetaceans of 192 dB re 1 $\mu Pa^2 \cdot s$.

As of 2017, a definitive approach is still not apparent. There is consensus in the research community that an SEL-based method is preferable, either separately or in addition to an SPL-based approach to assess the potential for injuries. In August 2016, after substantial public and expert input into three draft versions and based largely on the above-mentioned literature (NOAA 2013, 2015, 2016), NMFS finalised technical guidance for assessing the effect of anthropogenic sound on marine mammal hearing (NMFS 2016). The guidance describes auditory injury criteria with new thresholds and frequency weighting functions for the five hearing groups described by Finneran and Jenkins (2012). The latest revision to this work was published in 2018 (NMFS 2018). Southall et al. (2019) revisited the interim criteria published in 2007. All noise exposure criteria in NMFS (2018) and Southall et al. (2019) are identical (for impulsive and non-impulsive sounds); however, the mid-frequency cetaceans from NMFS (2018) are classified as high-frequency cetaceans in Southall et al. (2019), and high-frequency cetaceans from NMFS (2018) are classified as very-high-frequency cetaceans in Southall et al. (2019).

Southall et al. (2019) are identical (for impulsive and non-impulsive sounds); however, the mid-frequency cetaceans from NMFS (2018) are classified as high-frequency cetaceans in Southall et al. (2019), and high-frequency cetaceans from NMFS (2018) are classified as very-high-frequency cetaceans in Southall et al. (2019).

A.3.2. Behavioural Response

Numerous studies on marine mammal behavioural responses to sound exposure have not resulted in consensus in the scientific community regarding the appropriate metric for assessing behavioural reactions. However, it is recognised that the context in which the sound is received affects the nature and extent of responses to a stimulus (Southall et al. 2007, Ellison and Frankel 2012, Southall et al. 2016, Southall et al. 2021).

A.3.2.1. Non-Impulsive Noise

NMFS currently uses step function (all-or-none) threshold of 120 dB re 1 µPa SPL (unweighted) for non-impulsive sounds to assess and regulate noise-induced behavioural impacts on marine mammals (NOAA 2019). The 120 dB re 1 µPa threshold is associated with continuous sources and was derived based on studies examining behavioural responses to drilling and dredging, referring to Malme et al. (1983), Malme et al. (1984), and Malme et al. (1986), which were considered in Southall et al. (2007). Malme et al. (1986) found that playback of drillship noise did not produce clear evidence of disturbance or avoidance for levels below 110 dB re 1 µPa (SPL), possible avoidance occurred for exposure levels approaching 119 dB re 1 µPa. Malme et al. (1984) determined that measurable reactions usually consisted of rather subtle short-term changes in speed and/or heading of the whale(s) under observation. It has been shown that both received level and proximity of the sound source is a contributing factor in eliciting behavioural reactions in humpback whales (Dunlop et al. 2017, Dunlop et al. 2018).

A.3.2.2. Impulsive Noise

For impulsive noise, NMFS currently uses step function thresholds of 160 dB re 1 µPa SPL (unweighted) to assess and regulate noise-induced behavioural impacts for marine mammals (NOAA 2018, NOAA 2019). The threshold for impulsive sound is derived from the High-Energy Seismic Survey (HESS) panel (HESS 1999) report that, in turn, is based on the responses of migrating mysticete whales to airgun sounds (Malme et al. 1984)For impulsive noise, NMFS currently uses step function thresholds of 160 dB re 1 µPa SPL (unweighted) to assess and regulate noise-induced behavioural impacts for marine mammals (NOAA 2018, NOAA 2019). The threshold for impulsive sound is derived from the High-Energy Seismic Survey (HESS) panel (HESS 1999) report that, in turn, is based on the responses of migrating mysticete whales to airgun sounds (Malme et al. 1984). The HESS team recognised that behavioural responses to sound may occur at lower levels, but significant responses were only likely to occur above a SPL of 140 dB re 1 µPa. Southall et al. (2007) found varying responses for most marine mammals between a SPL of 140 and 180 dB re 1 µPa, consistent with the HESS (1999) report, but lack of convergence in the data prevented them from suggesting explicit step functions.

A.4. Marine Mammal Frequency Weighting

The potential for noise to affect animals of a certain species depends on how well the animals can hear it. Noises are less likely to disturb or injure an animal if they are at frequencies that the animal cannot hear well. An exception occurs when the sound pressure is so high that it can physically injure an animal by non-auditory means (i.e., barotrauma). For sound levels below such extremes, the importance of sound components at particular frequencies can be scaled by frequency weighting relevant to an animal's sensitivity to those frequencies (Nedwell and Turnpenny 1998, Nedwell et al. 2007).

A.4.1. Marine Mammal Frequency Weighting Functions

In 2015, a US Navy technical report by Finneran (2015) recommended new auditory weighting functions. The auditory weighting functions for marine mammals are applied in a similar way as A-weighting for noise level assessments for humans. The new frequency-weighting functions are expressed as:

$$G(f) = K + 10\log_{10}\left\{\frac{(f/f_1)^{2a}}{\left[1+(f/f_1)^2\right]^a\left[1+(f/f_2)^2\right]^b}\right\} \quad \text{(A-8)}$$

Finneran (2015) proposed five functional hearing groups for marine mammals in water: low-, mid-, and high-frequency cetaceans, phocid pinnipeds, and otariid pinnipeds. The parameters for these frequency-weighting functions were further modified the following year (Finneran 2016) and were adopted in NOAA's technical guidance that assesses acoustic impacts on marine mammals (NMFS 2018). The updates did not affect the content related to either the definitions of M-weighting functions or the threshold values. Table A-1 lists the frequency-weighting parameters for each hearing group; Figure A-3 shows the resulting frequency-weighting curves.

Table A-1. Parameters for the auditory weighting functions as recommended by Southall et al. (2019).

Hearing group	a	b	f_{lo} (Hz)	f_{hi} (kHz)	K (dB)
Low-frequency cetaceans (baleen whales)	1.0	2	200	19,000	0.13
High-frequency cetaceans (dolphins, plus toothed, beaked, and bottlenose whales)	1.6	2	8,800	110,000	1.20
Very high-frequency cetaceans (true porpoises, *Kogia*, river dolphins, cephalorhynchid, *Lagenorhynchus cruciger* and *L. australis*)	1.8	2	12,000	140,000	1.36
Phocid seals in water	1.0	2	1,900	30,000	0.75
Otariid seals in water	2.0	2	940	25,000	0.64

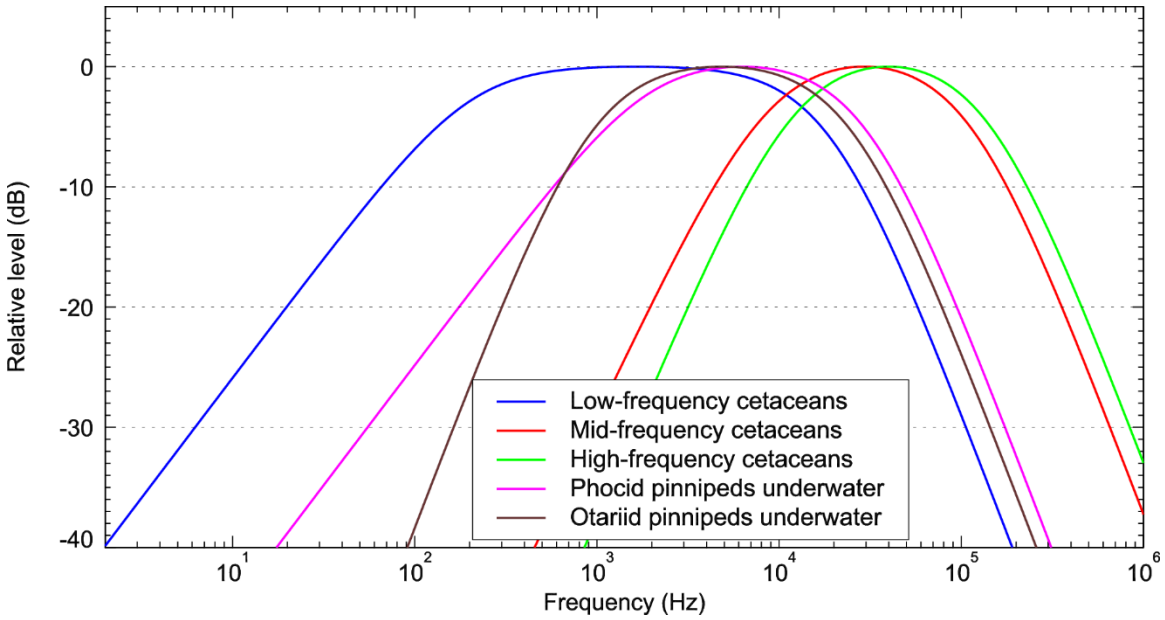


Figure A-3. Auditory weighting functions for functional marine mammal hearing groups as recommended by Southall et al. (2019).

Appendix B. VSP Source

B.1. Airgun Array Source Model

The source levels and directivity of the seismic source were predicted with JASCO's Airgun Array Source Model (AASM). AASM includes low- and high-frequency modules for predicting different components of the seismic source spectrum. The low-frequency module is based on the physics of oscillation and radiation of airgun bubbles, as originally described by Ziolkowski (1970), that solves the set of parallel differential equations that govern bubble oscillations. Physical effects accounted for in the simulation include pressure interactions between airguns, port throttling, bubble damping, and generator-injector (GI) gun behaviour discussed by Dragoset (1984), Laws et al. (1990), and Landrø (1992). A global optimisation algorithm tunes free parameters in the model to a large library of airgun source signatures.

While airgun signatures are highly repeatable at the low frequencies, which are used for seismic imaging, their sound emissions have a large random component at higher frequencies that cannot be predicted using a deterministic model. Therefore, AASM uses a stochastic simulation to predict the high-frequency (800−25,000 Hz) sound emissions of individual airguns, using a data-driven multiple-regression model. The multiple-regression model is based on a statistical analysis of a large collection of high quality seismic source signature data recently obtained from the Joint Industry Program (JIP) on Sound and Marine Life (Mattsson and Jenkerson 2008). The stochastic model uses a Monte-Carlo simulation to simulate the random component of the high-frequency spectrum of each airgun in an array. The mean high-frequency spectra from the stochastic model augment the low-frequency signatures from the physical model, allowing AASM to predict airgun source levels at frequencies up to 25,000 Hz.

AASM produces a set of "notional" signatures for each array element based on:

- Array layout
- Volume, operating depth, and firing pressure of each airgun
- Interactions between different airguns in the array

These notional signatures are the pressure waveforms of the individual airguns at a standard reference distance of 1 m; they account for the interactions with the other airguns in the array. The signatures are summed with the appropriate phase delays to obtain the far-field source signature of the entire array in all directions. This far-field array signature is filtered into decidecade bands to compute the source levels of the array as a function of frequency band and azimuthal angle in the horizontal plane (at the source depth), after which it is considered a directional point source in the far field.

A seismic array consists of many sources and the point source assumption is invalid in the near field where the array elements add incoherently. The maximum extent of the near field of an array (R_{nf}) is:

$$R_{nf} < \frac{l^2}{4\lambda} \quad \text{(B-1)}$$

where λ is the sound wavelength and l is the longest dimension of the array (Lurton 2002, §5.2.4). For example, a seismic source length of l = 21 m yields a near-field range of 147 m at 2 kHz and 7 m at 100 Hz. Beyond this R_{nf} range, the array is assumed to radiate like a directional point source and is treated as such for propagation modelling.

The interactions between individual elements of the array create directionality in the overall acoustic emission. Generally, this directionality is prominent mainly at frequencies in the mid-range between tens of hertz to several hundred hertz. At lower frequencies, with acoustic wavelengths much larger

than the inter-airgun separation distances, the directionality is small. At higher frequencies, the pattern of lobes is too finely spaced to be resolved and the effective directivity is less.

B.2. VSP Source Parameters

The layout of the seismic source is provided in Figure B-1. Details of the airgun parameters are provided in Table B-1. In the context of this source geometry the broadside direction is perpendicular to the sagittal plane of the array and the endfire direction is parallel to the sagittal plane of the array.

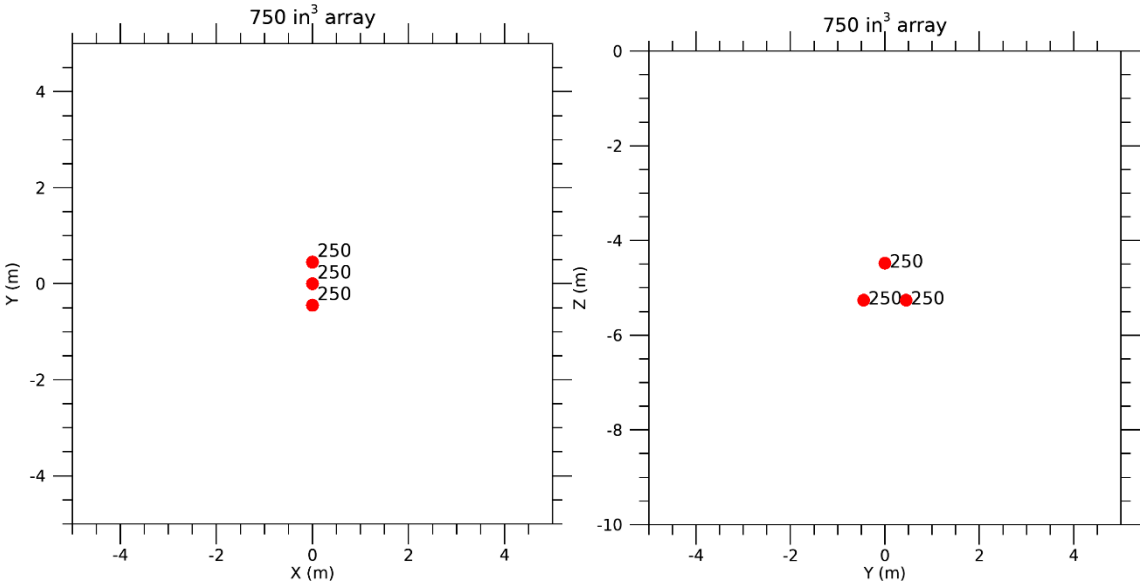


Figure B-1. (Left) Plan and (right) side layouts of the modelled 750 in³ seismic source array Operational depth is 5 m. The labels indicate the firing volume (in cubic inches) for each airgun. Also see Table B-1.

Table B-1. Layout of the modelled 750 in³ seismic source array. Operational depth is 5 m. Firing pressure for all guns is 2000 psi. Also see Figure B-1.

Gun	x (m)	y (m)	z (m)	Volume (in³)
1	0.0	0.0	4.48	250
2	0.0	0.45	5.26	250
3	0.0	−0.45	5.26	250

B.3. Array Source Levels and Directivity

Figure B-2 shows the broadside (perpendicular to the sagittal plane), endfire (parallel to the sagittal plane), and vertical overpressure signature and corresponding power spectrum levels for the 750 in^3 array (see Appendix B.2). Horizontal decidecade band source levels shown as a function of band centre frequency and azimuth (Figure B-3) indicate that this array is mainly isotropic.

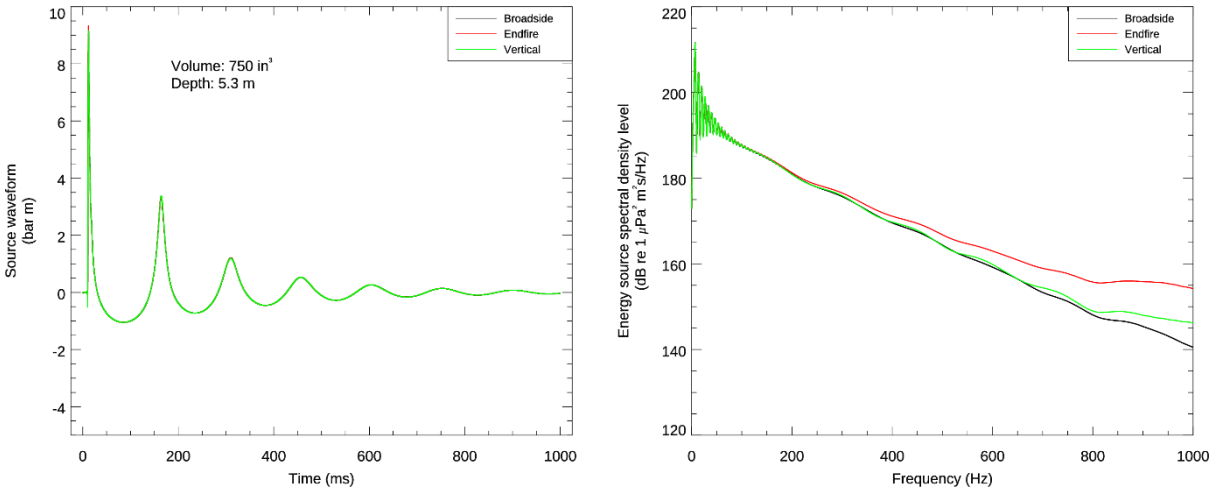


Figure B-2. Predicted source level details for the 750 in^3 array at a 5 m operational depth. (Left) the overpressure signature and (right) the power spectrum for horizontal (broadside and endfire) and vertical directions.

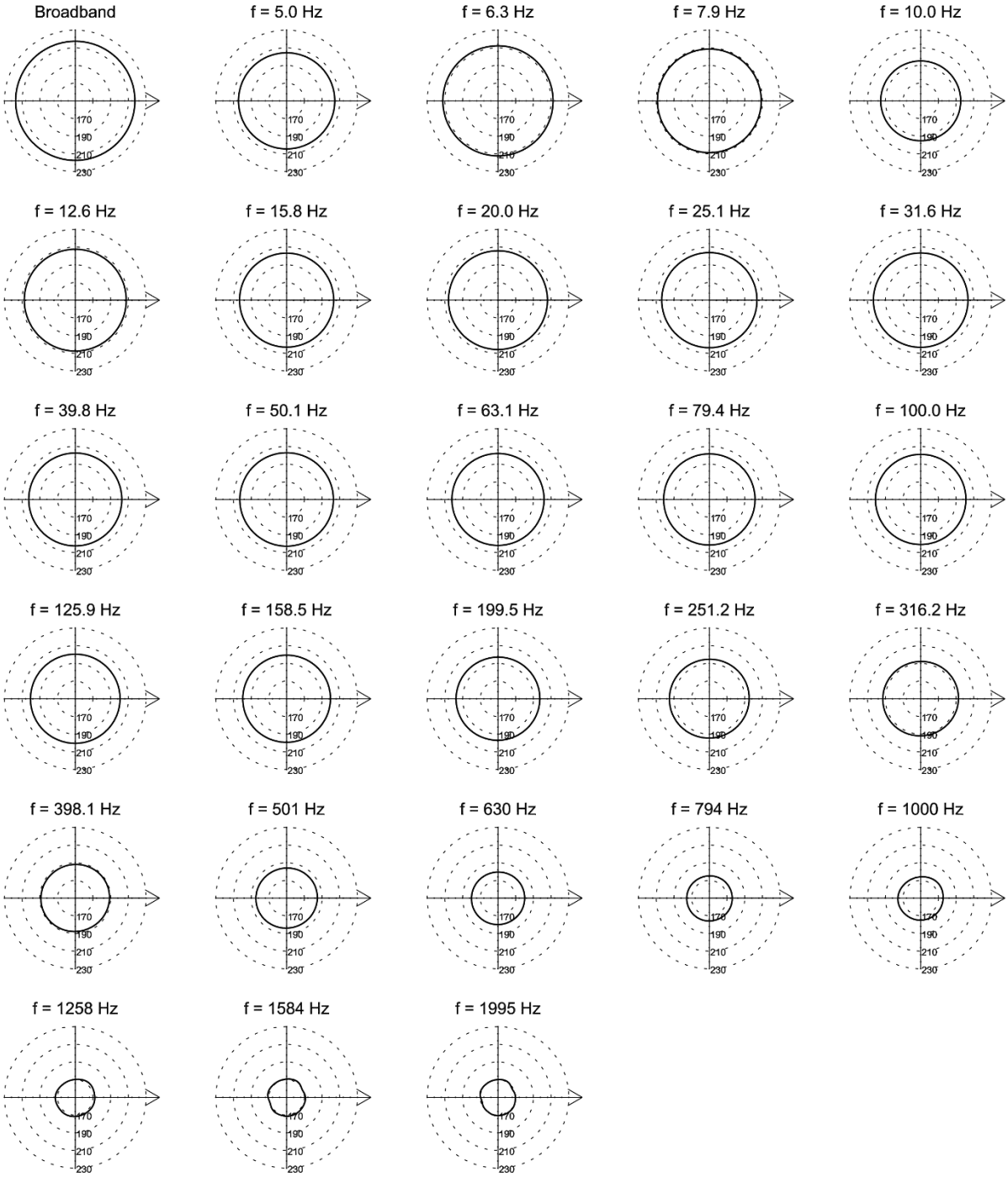


Figure B-3. Directionality of the predicted horizontal source levels for the 750 in^3 seismic source array, 10 Hz to 2 kHz. Source levels (in dB re 1 $\mu Pa^2 \cdot s\ m^2$) are shown as a function of azimuth for the centre frequencies of the decidecade bands modelled, shown above the plots. The endfire axis (i.e., axis parallel to the sagittal plane) is to the right. Operational depth is 5 m.

Appendix C. Survey and Positioning Equipment.

C.1. Equipment Descriptions

C.1.1. Underwater Acoustic Positioning

USBL (Ultra-short Base Line) acoustic positioning system will be utilised onboard the Campaign vessels. This tool is used to locate the position of a single subsea transponder that will be placed temporarily on the seabed and subsequently recovered. The USBL system uses a vessel mounted transceiver to detect the range and bearing to a target using acoustic signals.

C.1.2. Single-beam Echo Sounders and Multi-beam Echo Sounders

Single-beam echo sounders (SBES) use a hydrographic technique that provides the water depths and an image of the seabed and pipeline by measuring the two-way travel time of a high frequency sound pulse emitted by a transducer. The transducer, generally mounted on a vessel or to an Autonomous Underwater Vehicle (AUV), also tracks the motion of the unit it is mounted on in order to allow for correction for the motion. Multi-beam echo sounders (MBES) work in the same way but produce a swath or acoustic fan shaped pulse of sound made up of many single beams. A MBES acquires a wide swath (strip) of bathymetry data perpendicular to the vessel track and provides total seabed coverage with no gaps between vessel tracks. Different MBES systems are available for all water depths between 1 m and 12,000 m. The transducer(s) 'listen' for the reflected energy from the seabed. The fans of seabed coverage form a series of strips along each track, which are lined up side-by-side to generate two dimensional georeferenced bathymetric maps of the seabed. MBES surveys will enable the collection of bathymetry data and the correlation of depth information. This type of survey uses a sonar system to transmit short pulses of sound energy, analysing the return signal from the seafloor or other objects.

C.1.3. Side Scan Sonar Surveys (SSS)

SSS is a marine geophysical technique that is used to produce an image of the seafloor and identify obstructions or features. This type of survey is a hydro-acoustic technique, comprising a set of transducers mounted on either side of a towed vehicle, towed approximately 10-20 m above the seabed. SSS transducers may be mounted on AUV systems, vessel hulls or, more commonly, using an ROV.

C.2. Noise Emissions

C.2.1. Underwater Acoustic Positioning

An acoustic pulse is transmitted by the transceiver and detected by the subsea transponder, which replies with its own acoustic pulse. This return pulse is detected by the shipboard transceiver. The time from the transmission of the initial acoustic pulse until the reply is detected is measured by the USBL system and is converted into a range. To calculate a subsea position, the USBL calculates both a range and an angle from the transceiver to the subsea beacon. Angles are measured by the transceiver, which contains an array of transducers. The transducer will then send sound signals, typically at 19 to 33 kHz to a USBL transponder.

A typical and widely used USBL system is the Sonardyne Ranger USBL. The source level and frequency range of this system from previous field measurements (Warner and McCrodan 2011) were found to be 18-36 kHz and 204 dB re 1 µPa @1m (SPL). The per-pulse SEL source level was 173 dB re 1 μPa^2s @ 1 m, and the measured maximum Peak (PK) was approximately 170 dB re 1 µPa at 30 m. This source can be considered an impulsive sound source for impact assessment purposes for this study. Austin et al. (2012) calculated the distances to SPL isopleths for the Ranger USBL in open water and found the distance to 160 dB re 1 µPa (SPL) to be 36 m. Considering 1000 impulses at 40 m range through summing the received SEL from each impulse results in an unweighted SEL of 144 dB re 1 μPa^2s, which can be used in a conservative comparison against relevant SEL impact assessment thresholds.

C.2.2. Single-beam Echo Sounders and Multi-beam Echo Sounders

Typical MBESs used in survey work include the Reson Seabat and the R2Sonic products. These systems operate at 200-400kHz, with a variable total beam width, although 60° is common. For example, the transmit power from a R2Sonic 2024 echo sounder is up to 221 dB re 1 µPa at 1m (SPL), with a short (15 µs to 1 ms) pulse width, however the operational power level and pulse width influence the potential sound fields. This source can be considered an impulsive sound source for impact assessment purposes for this study. Measurements for the R2Sonic 2024 were reported in Martin et al. (2012), who measured a maximum SPL of 162 dB re 1 µPa at 4 m, with the system operating at an average pulse length of 0.11 ms. The accumulated SEL over 363 measured pulses was 121.5 dB re 1 μPa^2s. Measurements of another similar system, the Reson SeaBat 8101 MBES operating at 240 kHz were reported in Chorney et al. (2011). These measurements show that at 40 m, the PK levels are approximately 170 dB re 1 µPa, and the per-pulse SEL 130 dB re 1 $\mu Pa^2 \cdot s$. Zykov (2013) modelled an R2Sonic 2022, another similar MBES, and found that the sound levels would not exceed an unweighted 171 dB re 1 $\mu Pa^2 \cdot s$ more than 2 m from the source while conducting a 2.5 h geophysical survey. The models of MBES considered in this study are those which generate only high frequency signals (therefore excluding the lower frequency units), and as such will only be relevant for fauna with sensitivity to signals of approximately 200 kHz or higher, which excludes low-frequency cetaceans, fish, and turtles.

SBESs are less powerful then MBESs, therefore the information supplied for MBES is considered representative of the potential outputs from SBES.

C.2.3. Side Scan Sonar Surveys (SSS)

The sonar is highly directional, with distances to sound levels outside the beam significantly less than those in the beam. SSS towfish are typically towed approximately 10 to 20 metres above the seabed, thus the beam will be restricted to a swath close to the seabed. These towfish can use a range of operating frequencies, but typically they are between 70 and 400 kHz. Representative systems could include those from Edgetech, such as the 4200 range. They output signals at 120 and 410 kHz. Measurements of an EdgeTech 4200 were reported in Crocker and Fratantonio (2016) for 100 and 400 kHz modes, with a maximum per-pulse source level of 176 dB re 1 μPa^2s @ 1m (SEL), 205 dB re 1 µPa @ 1m (SPL) and 210 dB re 1 µPa @1m (PK). Austin et al. (2013a) also measured the system during an operational program, focusing on the 120 kHz impulses. The authors reported a PK of less than 175 dB re 1 µPa and an SPL of less than 170 dB re 1 µPa at 39 m, with the distance from in-beam pulses to an SPL of 160 dB re 1 µPa calculated to be 130 m.

The SSS models considered here are those which generate only high frequency signals, and as such will only be relevant for fauna with sensitivity to signals of approximately 110 kHz or higher, as shown in Austin et al. (2013a), which excludes low-frequency cetaceans, fish, and turtles.

C.3. Impact

C.3.1. Marine Mammals

The sound levels from positioning equipment are described Section C.2.1. As discussed above, the proposed equipment has sound levels which could reach the marine mammal behavioural threshold within 36 m. A nominal accumulation scenario for 1000 impulses results in an unweighted accumulated SEL well below thresholds for PTS and TTS in marine mammals. The measured PK at 30 m was 170 dB re 1 µPa is well below thresholds for PTS and TTS in marine mammals. Therefore, PTS and TTS thresholds (Table 13) are not predicted to be exceeded from the positioning equipment.

The sound levels from MBES are described in Section C.2.2. The measurement study from Martin et al. (2012) indicates that the behavioural response threshold (Table 13) could be exceeded within less than 10 m. PTS and TTS thresholds due to SEL are not predicted to be exceeded, considering that a measurement of along a track line with a closest point of approach of 4 m did not result in accumulated unweighted levels higher than 121.5 dB re 1 μPa^2s. PTS and TTS thresholds due to PK are not predicted to be exceeded, considering measurement of 170 dB re 1 µPa PK at 40 m. Therefore, considering both SEL and PK metrics, PTS and TTS thresholds (Table 13) are not predicted to be exceeded from MBES and subsequently SBES.

The sound levels from SSS are described in Section C.2.3. The measurement study Austin et al. (2013) indicates that the behavioural threshold (Table 13) could be exceeded within less than 130 m for marine mammals within the highly directional source output beam pattern. The reported per-pulse sound levels at 40 m are like those from the MBES, and as it isn't predicted to exceed either the PTS or TTS thresholds considering both SEL and PK metrics (Table 13), neither is the SSS. Additionally, the per-pulse peak pressure source level of the SSS is below the PK criteria threshold, therefore the criteria cannot be exceeded.

Survey and positioning equipment could cause masking of vocalisations of cetaceans due to the overlap in frequency range between signals and vocalisations. However, due to the limited propagation range of the relevant frequencies (higher frequencies attenuate rapidly), the range at which the impact could occur will be small, within hundreds of meters. The masking will apply to MF cetaceans for the positioning equipment, MBES, and SSS, with all signals above 2 kHz.

Given the transient and mobile nature of the survey, the operating frequencies and noise maxima of the survey equipment considered here, effects of survey equipment noise on marine mammals are expected to be limited to behavioural responses proximal to the vessel, ranges less than those from the vessel by itself.

Appendix D. Methods and Parameters

D.1. Sound Propagation Models

D.1.1. Propagation Loss

The propagation of sound through the environment was modelled by predicting the acoustic propagation loss—a measure, in decibels, of the decrease in sound level between a source and a receiver some distance away. Geometric spreading of acoustic waves is the predominant way by which propagation loss occurs. Propagation loss also happens when the sound is absorbed and scattered by the seawater, and absorbed scattered, and reflected at the water surface and within the seabed. Propagation loss depends on the acoustic properties of the ocean and seabed; its value changes with frequency.

If the acoustic energy source level (ESL), expressed in dB re 1 $\mu Pa^2 \cdot s\ m^2$, and propagation loss (PL), in units of dB, at a given frequency are known, then the received level (RL) at a receiver location can be calculated in dB re 1 $\mu Pa^2 \cdot s$ by:

$$\mathrm{RL} = \mathrm{SL} - \mathrm{PL}\,. \qquad \text{(D-1)}$$

D.1.2. MONM-BELLHOP

Long-range sound fields were computed using JASCO's Marine Operations Noise Model (MONM). While other models may be more accurate for steep-angle propagation in high-shear environment, MONM is well suited for effective longer-range estimation. This model computes sound propagation at frequencies of 10 Hz to 1.6 kHz via a wide-angle parabolic equation solution to the acoustic wave equation (Collins 1993) based on a version of the US Naval Research Laboratory's Range-dependent Acoustic Model (RAM), which has been modified to account for a solid seabed (Zhang and Tindle 1995). MONM computes sound propagation at frequencies >1.6 kHz via the BELLHOP Gaussian beam acoustic ray-trace model (Porter and Liu 1994).

The parabolic equation method has been extensively benchmarked and is widely employed in the underwater acoustics community (Collins et al. 1996). MONM accounts for the additional reflection loss at the seabed, which results from partial conversion of incident compressional waves to shear waves at the seabed and sub-bottom interfaces, and it includes wave attenuations in all layers. MONM incorporates the following site-specific environmental properties: a bathymetric grid of the modelled area, underwater sound speed as a function of depth, and a geoacoustic profile based on the overall stratified composition of the seafloor.

MONM computes acoustic fields in three dimensions by modelling propagation loss within two-dimensional (2-D) vertical planes aligned along radials covering a 360° swath from the source, an approach commonly referred to as N×2-D. These vertical radial planes are separated by an angular step size of $\Delta\theta$, yielding N = 360°/$\Delta\theta$ number of planes (Figure D-1).

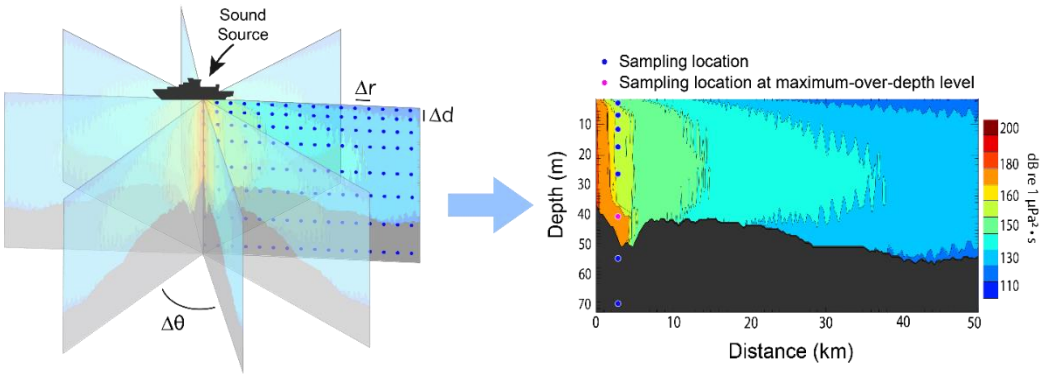


Figure D-1. The N×2-D and maximum-over-depth modelling approach used by MONM.

MONM treats frequency dependence by computing acoustic propagation loss at the centre frequencies of decidecade bands. Sufficiently many decidecade frequency-bands, starting at 10 Hz, are modelled to include most of the acoustic energy emitted by the source. At each centre frequency, the propagation loss is modelled within each of the N vertical planes as a function of depth and range from the source. The decidecade received per-second SEL are computed by subtracting the band propagation loss values from the directional source level in that frequency band. Composite broadband received per-second SEL are then computed by summing the received decidecade levels.

The received 1-s SEL sound field within each vertical radial plane is sampled at various ranges from the source, generally with a fixed radial step size. At each sampling range along the surface, the sound field is sampled at various depths, with the step size between samples increasing with depth below the surface. The step sizes are chosen to provide increased coverage near the depth of the source and at depths of interest in terms of the sound speed profile. For areas with deep water, sampling is not performed at depths beyond those reachable by marine mammals. The received per-pulse or per-second SEL at a surface sampling location is taken as the maximum value that occurs over all samples within the water column, i.e., the maximum-over-depth received per-second SEL. These maximum-over-depth per-second SEL are presented as colour contours around the source.

D.1.3. Noise Propagation with FWRAM

For impulsive sounds from impact pile driving, time-domain representations of the pressure waves generated in the water are required to calculate SPL and peak pressure level. Furthermore, the pile must be represented as a distributed source to accurately characterise vertical directivity effects in the near-field zone. For this study, synthetic pressure waveforms were computed using JASCO's Full Waveform Range-dependent Acoustic Model (FWRAM). FWRAM computes acoustic propagation via a wide-angle parabolic equation solution to the acoustic wave equation (Collins 1993) based on a version of the US Naval Research Laboratory's Range-dependent Acoustic Model (RAM), which has been modified to account for an elastic seabed (Zhang and Tindle 1995). The parabolic equation method has been extensively benchmarked and is widely employed in the underwater acoustics community (Collins et al. 1996). FWRAM accounts for the additional reflection loss at the seabed due to partial conversion of incident compressional waves to shear waves at the seabed and sub-bottom interfaces, and it includes wave attenuations in all layers. FWRAM incorporates the following site-specific environmental properties: a modelled area bathymetric grid, underwater sound speed as a function of depth, and a geoacoustic profile based on the overall stratified composition of the seafloor.

FWRAM computes pressure waveforms via Fourier synthesis of the modelled acoustic transfer function in closely spaced frequency bands. FWRAM employs the VSP array starter method to accurately model sound propagation from a spatially distributed source (MacGillivray and Chapman 2012).

Synthetic pressure waveforms from the VSP array were modelled and post-processed, after applying a travel time correction, to calculate SPL, SEL and PK metrics versus range and depth from the source.

D.1.4. Wavenumber Integration Model

Sound pressure levels near the seismic source were modelled using JASCO's VSTACK wavenumber integration model. VSTACK computes synthetic pressure waveforms versus depth and range for arbitrarily layered, range-independent acoustic environments using the wavenumber integration approach to solve the exact (range-independent) acoustic wave equation. This model is valid over the full angular range of the wave equation and can fully account for the elasto-acoustic properties of the sub-bottom. Wavenumber integration methods are extensively used in the field of underwater acoustics and seismology where they are often referred to as reflectivity methods or discrete wavenumber methods. VSTACK computes sound propagation in arbitrarily stratified water and seabed layers by decomposing the outgoing field into a continuum of outward-propagating plane cylindrical waves. Seabed reflectivity in the model is dependent on the seabed layer properties: compressional and shear wave speeds, attenuation coefficients, and layer densities. The output of the model can be post-processed to yield estimates of the SEL, SPL, and PK.

VSTACK accurately predicts steep-angle propagation in the proximity of the source, but it is computationally slow at predicting sound pressures at large distances due to the need for smaller wavenumber steps with increasing distance. Additionally, VSTACK assumes range-invariant bathymetry with a horizontally stratified medium (i.e., a range-independent environment) which is azimuthally symmetric about the source. VSTACK is thus best suited to modelling the sound field near the source.

D.1.5. Limestone Seabed Propagation Loss

For sites where the seabed geoacoustic model consisted of bare calcarenite, an additional broadband correction was applied to the propagation loss results from MONM to better account for the additional propagation loss associated with a limestone (calcarenite) seabed (Duncan et al. 2009). The accuracy of the broadband calculated propagation loss for the South-eastern continental shelf of Australia depends significantly upon the frequency content of the radiating sound source together with thickness of any overlying layers of unconsolidated sediment (e.g., sand) on top of calcarenite likely to occur within the region.

In general, the thinner the sand layer, the greater the overall propagation loss. When comparing SPL data McPherson et al. (2021), higher rates of propagation loss were observed and were attributed to, an absorptive carbonate (calcarenite) seabed. In this study, comparisons were conducted using JASCO's Marine Operations Noise Model (MONM), a wide-angle parabolic equation model which applies the BELLHOP Gaussian beam acoustic ray-trace model at higher frequencies, and JASCO's wavenumber integration model (VSTACK, Appendix D.1.4) which can fully account for the elasto-acoustic properties of the sub-bottom.

To account for the additional propagation loss associated with a cemented calcarenite seabed, an additional broadband correction was applied to the propagation loss results from MONM to account for the higher rates of loss when the full for the elasto-acoustic properties of the sub-bottom are consider. The differences between the broadband SPL from MONM and VSTACK were extracted at the same modelled ranges and depths that corresponded range independent predictions. The 90th percentile of the resultant dB differences in 250 m range bins were selected to generate a correction function for each individual site/source to be modelled. The conversion functions were applied after the propagation loss calculation from MONM but before summing decidecade band levels, gridding, and radii calculations for each modelled site in each modelled scenario considered.

D.2. Environmental Parameters

D.2.1. Bathymetry

Water depths throughout the modelled areas were extracted from the Australian Bathymetry and Topography Grid, a 9 arc-second grid rendered for Australian waters (Whiteway 2009). Bathymetry data were re-gridded onto a Map Grid of Australia (MGA) coordinate projection (Zone 54) with a regular grid spacing of 250 × 250 m (Figure D-2, D-3 and D-4).

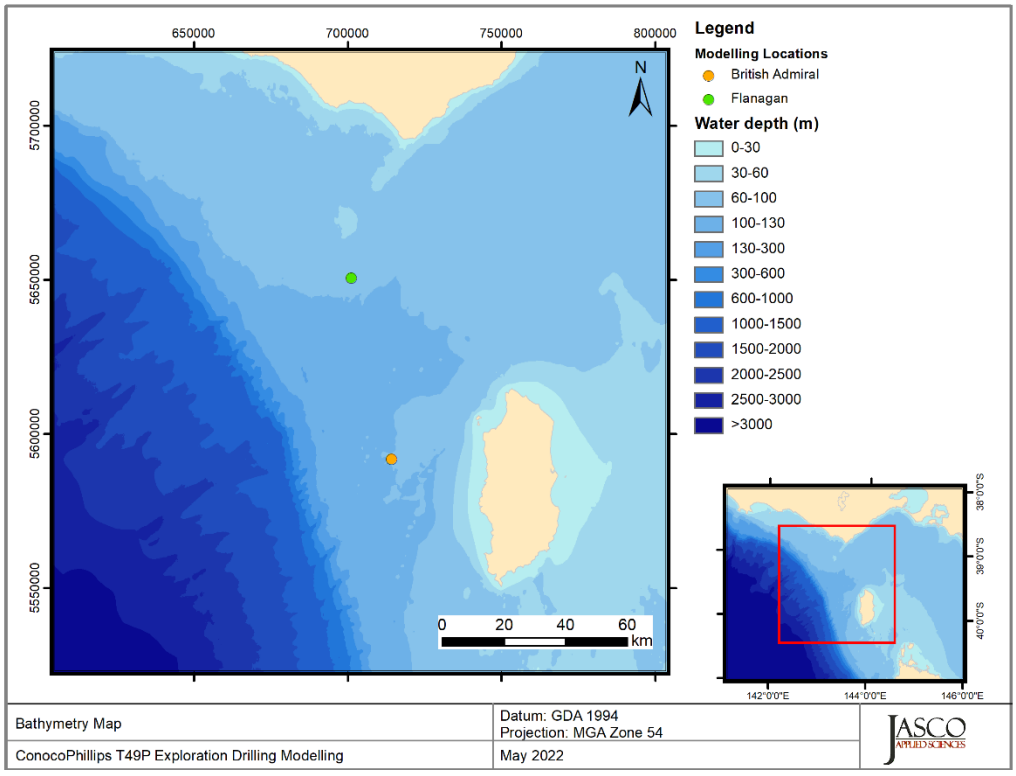


Figure D-2. Bathymetry in the T/49P modelled area.

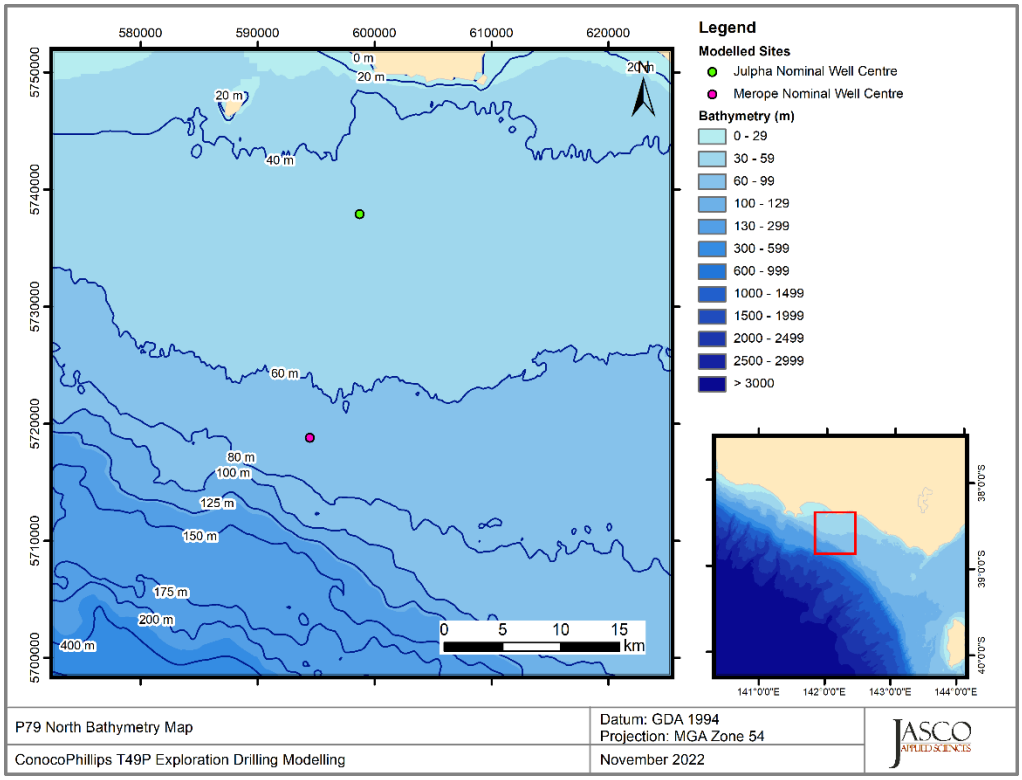


Figure D-3. Bathymetry in the northern extent of the VIC/P79 modelled area.

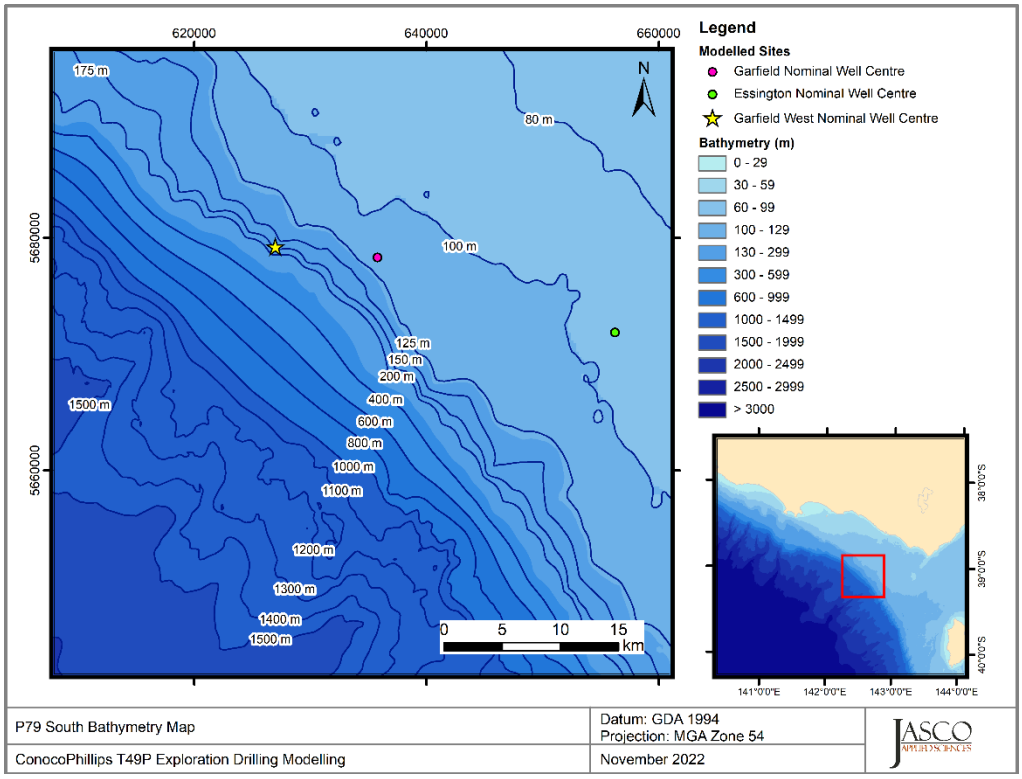


Figure D-4. Bathymetry in the southern extent of the VIC/P79 modelled area.

D.2.2. Sound Speed Profile

The sound speed profile in the area was derived from temperature and salinity profiles from the US Naval Oceanographic Office's Generalized Digital Environmental Model V 3.0 (GDEM; Teague et al. 1990, Carnes 2009). GDEM provides an ocean climatology of temperature and salinity for the world's oceans on a latitude-longitude grid with 0.25° resolution, with a temporal resolution of one month, based on global historical observations from the US Navy's Master Oceanographic Observational Data Set (MOODS). The climatology profiles include 78 fixed depth points to a maximum depth of 6800 m (where the ocean is that deep). The GDEM temperature-salinity profiles were converted to sound speed profiles according to Coppens (1981).

Mean monthly sound speed profiles were derived from the GDEM profiles at distances less than 40 km around the modelled site. The July sound speed profile is expected to be most favourable to longer-range sound propagation across the entire year, and as such was selected for sound propagation modelling to ensure precautionary estimates of distances to received sound level thresholds. Figure D-5 shows the resulting profile, which was used as input to the sound propagation modelling as well as the other monthly profiles.

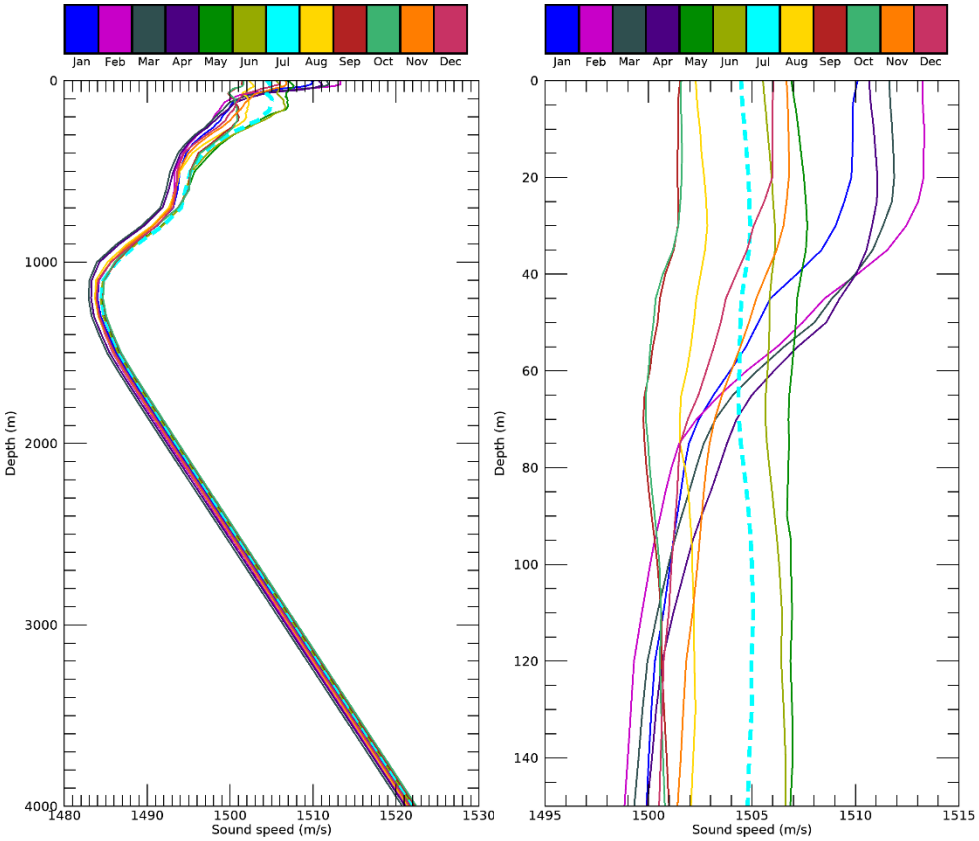


Figure D-5. The modelling sound speed profile corresponding to July (dashed curve) and (left) all full monthly profiles and (right) top 150 m. Profiles are calculated from temperature and salinity profiles from *Generalized Digital Environmental Model* V 3.0 (GDEM; Teague et al. 1990, Carnes 2009).

D.2.3. Geoacoustics

Aside from *Garfield West*, a single representative geoacoustic profile was used for all other modelled sites based on borehole analysis near the modelling sites at the western edge of the Bass Strait

(Duncan et al. 2013). The sediment is typified by a thin layer of well-cemented calcarenite overlying a softer sand/calcarenite layer that extends for a further 100 m below the sea floor. The sound propagation models use a single value shear speed, which has been set at a value representative of the layers beneath the cemented calcarenite layer. The geoacoustic profile is presented in Table D-1.

Geoacoustic parameters used for modelling at *Garfield West* were derived from sedimentary grain size measurements from the Australian Government's Marine Sediments (MARS) database (Heap 2009). Most of these samples were taken on or near the seafloor, although some are from sediment at greater depths. On average, the surficial grain size indicates silty sand is present throughout the modelled area. Geotechnical data along the southern Australian shelf typically show sand overlaying calcarenite layers (Bradshaw 2002, Duncan et al. 2013). Representative grain sizes and porosity were used in the grain-shearing model proposed by Buckingham (2005) to estimate the geoacoustic parameters required by the sound propagation models. Table D-2 lists the geoacoustic parameters used for modelling.

Table D-1. Geoacoustic profile for all modelled sites. Each parameter remains constant within the stated range.

Depth below seafloor (m)	Predicted lithology	Density (g/cm³)	Compressional wave		Shear wave	
			Speed (m/s)	Attenuation (dB/λ)	Speed (m/s)	Attenuation (dB/λ)
0–1	Well-cemented calcarenite	2.2	2600	0.2	500	0.4
1–101	Slightly to semi-cemented sand/calcarenite	1.9	2100	0.12		
101–1000	Semi-cemented sand/calcarenite	1.9	2200	0.12		
>1000	Basement (rock)	3.0	3800	0.1		

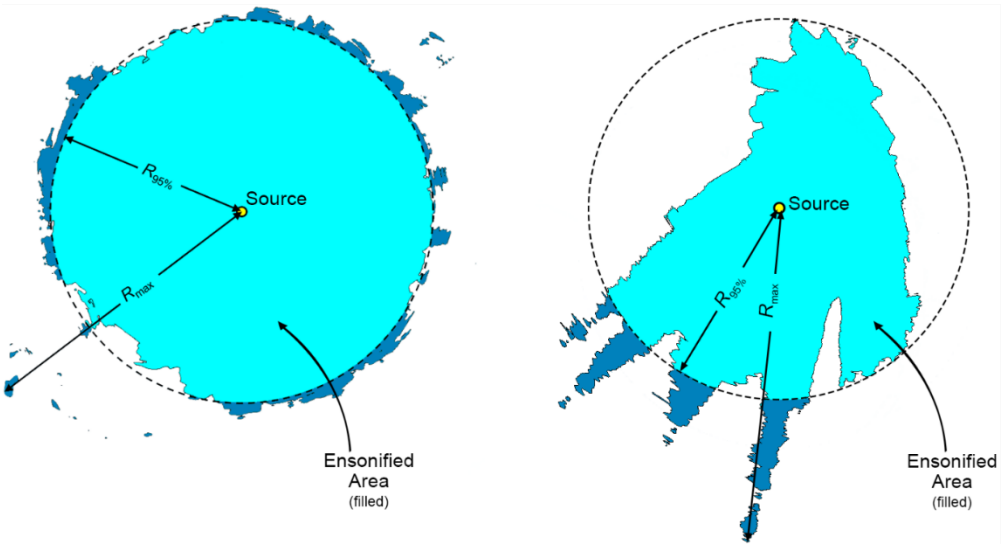
Table D-2. Geoacoustic profile for *Garfield West*. Each parameter changes linearly within the stated range.

Depth below seafloor (m)	Predicted lithology	Density (g/cm³)	Compressional wave		Shear wave	
			Speed (m/s)	Attenuation (dB/λ)	Speed (m/s)	Attenuation (dB/λ)
0–10	Silty carbonate sand to semi-cemented limestone	1.88	1605–1700	0.35–0.70	255	3.65
10-20		1.88–1.89	1700–1755	0.70–0.85		
20-50		1.89–1.90	1755–1850	0.85–1.15		
50-100		1.90–1.92	1850–1950	1.15–1.35		
100-200		1.92–1.96	1950–2100	1.35–1.60		
200-500		1.96–2.05	2100–2355	1.60–1.95		
>500		1.88	1605–1700	0.35–0.70		

D.3. Estimating Range to Thresholds Levels

Sound level contours were calculated based on the underwater sound fields predicted by the propagation models, sampled by taking the maximum value over all modelled depths above the sea floor for each location in the modelled region. The predicted distances to specific levels were computed from these contours. Two distances relative to the source are reported for each sound level: 1) R_{max}, the maximum range to the given sound level over all azimuths, and 2) $R_{95\%}$, the range to the given sound level after the 5% farthest points were excluded (see examples in Figure D-6).

The $R_{95\%}$ is used because sound field footprints are often irregular in shape. In some cases, a sound level contour might have small protrusions or anomalous isolated fringes. This is demonstrated in the image in Figure D-6(a). In cases such as this, where relatively few points are excluded in any given direction, R_{max} can misrepresent the area of the region exposed to such effects, and $R_{95\%}$ is considered more representative. In strongly asymmetric cases such as shown in Figure D-6(b), on the other hand, $R_{95\%}$ neglects to account for significant protrusions in the footprint. In such cases R_{max} might better represent the region of effect in specific directions. Cases such as this are usually associated with bathymetric features affecting propagation. The difference between R_{max} and $R_{95\%}$ depends on the source directivity and the non-uniformity of the acoustic environment.



(a) (b)

Figure D-6. Sample areas ensonified to an arbitrary sound level with R_{max} and $R_{95\%}$ ranges shown for two different scenarios. (a) Largely symmetric sound level contour with small protrusions. (b) Strongly asymmetric sound level contour with long protrusions. Light blue indicates the ensonified areas bounded by $R_{95\%}$; darker blue indicates the areas outside this boundary which determine R_{max}.

D.4. Estimating SPL from Modelled SEL Results

The per-pulse SEL of sound pulses is an energy-like metric related to the dose of sound received over a pulse's entire duration. The pulse SPL on the other hand, is related to its intensity over a specified time interval. Seismic pulses, and VSP pulses typically lengthen in duration as they propagate away from their source, due to seafloor and surface reflections, and other waveguide dispersion effects. The changes in pulse length, and therefore the time window considered, affect the numeric relationship between SPL and SEL. This study has applied a fixed window duration to calculate SPL (T_{fix} = 125 ms; see Appendix A.1), as implemented in Martin et al. (2017b). Full-waveform modelling was used to estimate SPL, but this type of modelling is computationally intensive, and can be prohibitively time consuming when run at high spatial resolution over large areas.

For the current study, FWRAM (see Appendix D.1.3) was used to model synthetic seismic pulses over the frequency range 5–1024 Hz. This was performed along select broadside and endfire radials at both drill site locations. FWRAM uses Fourier synthesis to recreate the signal in the time domain so that both the SEL and SPL from the source can be calculated. A 125 ms fixed time window positioned to maximise the SPL over the pulse duration was applied. The resulting SEL-to-SPL offsets were averaged in 0.01 km range bins along each modelled radial and depth, and the 90th percentile was selected at each range to generate a generalised range-dependent conversion function for the site. The range-dependent conversion function was then applied to predicted per-pulse SEL results from MONM to model and map SPL values.

The conversion offsets for the *British Admiral* and *Flanagan* sites are presented in; the spatial variation is caused by changes in the received airgun pulse as it propagates from the source.

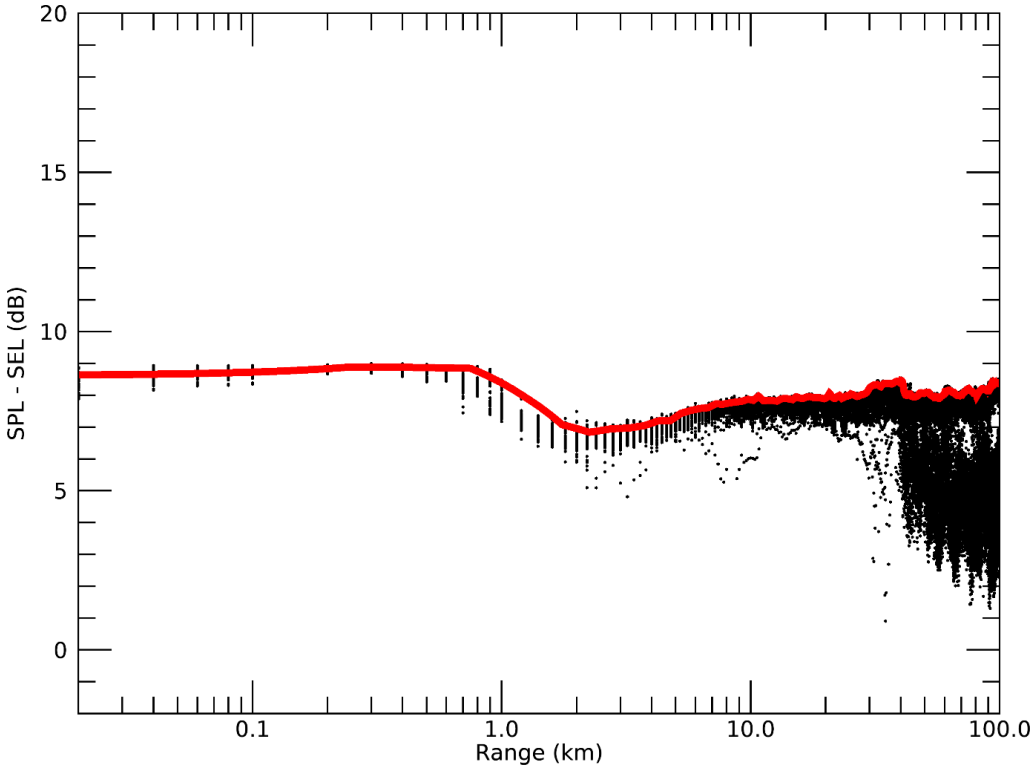


Figure D-7. Range-and-depth-dependent conversion offsets for converting sound exposure level (SEL) to sound pressure level (SPL) for Vertical Seismic Profiling (VSP) pulses at *British Admiral*. Black dots are the modelled differences between SEL and SPL across different radials and receiver depths; the solid red line is the 90th percentile of the modelled differences at each range.

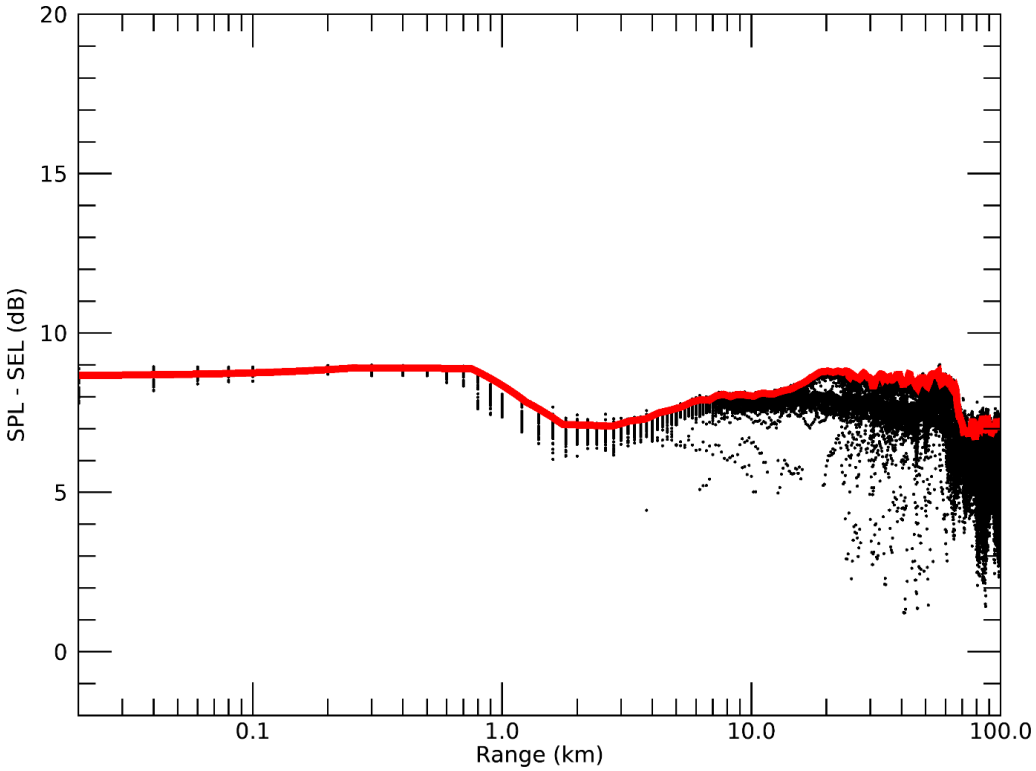


Figure D-8. Range-and-depth-dependent conversion offsets for converting sound exposure level (SEL) to sound pressure level (SPL) for Vertical Seismic Profiling (VSP) pulses at *Flanagan*. Black dots are the modelled differences between SEL and SPL across different radials and receiver depths; the solid red line is the 90th percentile of the modelled differences at each range.

D.5. Estimating Sound Field from Moving Vessels

During vessel transit, new sound energy is constantly introduced into the environment. The noise footprint for the transiting vessels considered in this report were estimated by modelling the 1 s SEL for the vessel at one location, and by translating and summing these footprints along the vessel transit routes. The vessel locations along the tracks were spaced uniformly, with an approximate step of $\Delta s \approx 100$ m.

The SEL sound field at any given point along the path is dependent on the exposure duration, which with a fixed footprint spacing depends on the speed of the vessel during each segment of the transit. The 1 s SEL footprint at each vessel location (i) were therefore scales based on the speed of the vessel following:

$$\mathrm{SEL}_i = \mathrm{SEL}_{1s} + 10 \log_{10}\left(\frac{\Delta s}{v}\right), \qquad \text{(D-2)}$$

where v represents the vessel speed in m/s.

The present method acceptably reflects large-scale sound propagation features, primarily dependent on water depth, which dominate the cumulative field and is thus considered to provide a meaningful estimate of the SEL_{24h} field.

Appendix E. Model Validation Information

Predictions from JASCO's propagation models (MONM, FWRAM, and VSTACK) have been validated against experimental data from a number of underwater acoustic measurement programs conducted by JASCO globally, including the United States and Canadian Artic, Canadian and southern United States waters, Greenland, Russia, and Australia (Hannay and Racca 2005, Aerts et al. 2008, Funk et al. 2008, Ireland et al. 2009, O'Neill et al. 2010, Warner et al. 2010, Racca et al. 2012a, Racca et al. 2012b, Matthews and MacGillivray 2013, Martin et al. 2015, Racca et al. 2015, Martin et al. 2017a, Martin et al. 2017b, Warner et al. 2017, MacGillivray 2018, McPherson et al. 2018, McPherson and Martin 2018).

In addition, JASCO has conducted measurement programs associated with a significant number of anthropogenic activities that have included internal validation of the modelling (including McCrodan et al. 2011, Austin and Warner 2012, McPherson and Warner 2012, Austin and Bailey 2013, Austin et al. 2013b, Zykov and MacDonnell 2013, Austin 2014, Austin et al. 2015, Austin and Li 2016, Martin and Popper 2016).

Appendix F. Tech Memo: Otway Exploration Drilling Program - Representative nature of Modelling Sites and Scenarios

F.1. Introduction

Underwater acoustic modelling scenarios were considered for the ConocoPhillips Australia Otway Exploration Drilling Program in both VIC/P79 (North and South) and T/49P and presented in a consolidated report:

- Otway Exploration Drilling Program: Acoustic Modelling for Assessing Marine Fauna Sound Exposures, Document 02760.

The locations of the modelling scenarios are shown in Figures 94, 95, 96, with increased detail on the drilling targets in T/49P shown in Figure 97. The modelling scenarios considered a range of scenarios encompassing all activities which might pose higher risks to marine fauna from underwater noise. The modelling results from all three reports relating to marine mammals, behavioural response and Temporary Threshold Shift (TTS) are summarised in Tables 46 and 47 respectively.

F.2. Modelling Results Analysis

To examine applicability of the modelling results across the drilling areas of interest, basic statistics were examined, and considered along with an understanding of how the geology and bathymetry influence the sound fields from the different operations. The statistical summary of the modelling results for behavioural response and TTS is presented in Table 48 and 49.

The general trend identified in the modelling results, and discussed in the modelling reports, is that for sites not immediately at the shelf edge (sites other than Garfield West), ranges to thresholds are generally consistent. This is due to both the bathymetry and the seabed geology, in particular the attenuating influence of the calcarenite seafloor. Close to the shelf break across the region the geology begins to change, resulting in a more reflective seabed, which when coupled with the down sloping bathymetry in the offshore direction, results in extended ranges to threshold(s) in the offshore direction.

The modelling results and associated trends indicate that it would be reasonable to represent the potential ranges to effect for drilling and associated operations within approximately the 110–125 m contour through using the presented results. Therefore, all potential drilling locations in T/49P within the operational area except for the very offshore boundary of Seal Rocks in two locations (near the canyon heads), as shown in Figure 97, can be represented through the presented results. For these two locations in the proximity to the shelf break increases; the proximity of the slope has an increased influence on the offshore propagation path, and the seabed increases in reflectivity, resulting in an increase in ranges to effect thresholds. However, this influence will gradually increase, and a conservative estimate of increases the maximum predicted ranges to effect by 125% is likely to be a valid representation of possible changes for these particular locations within Seal Rocks. For drilling locations within VIC/P79, the same reasoning is expected to apply, however no estimate is provided for potential ranges to thresholds deeper than the 150 m contour in VIC/P79.

F.3. Maps and Tables

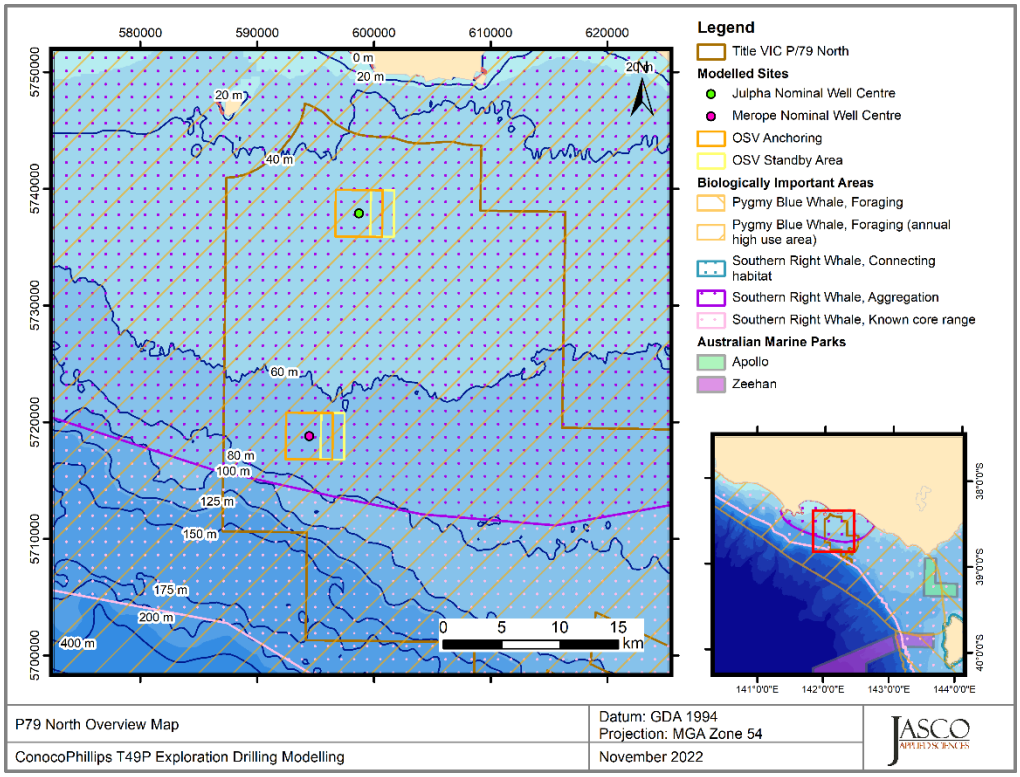


Figure 94. VIC/P79 Northern extent - Overview map of the Title and modelled sites.

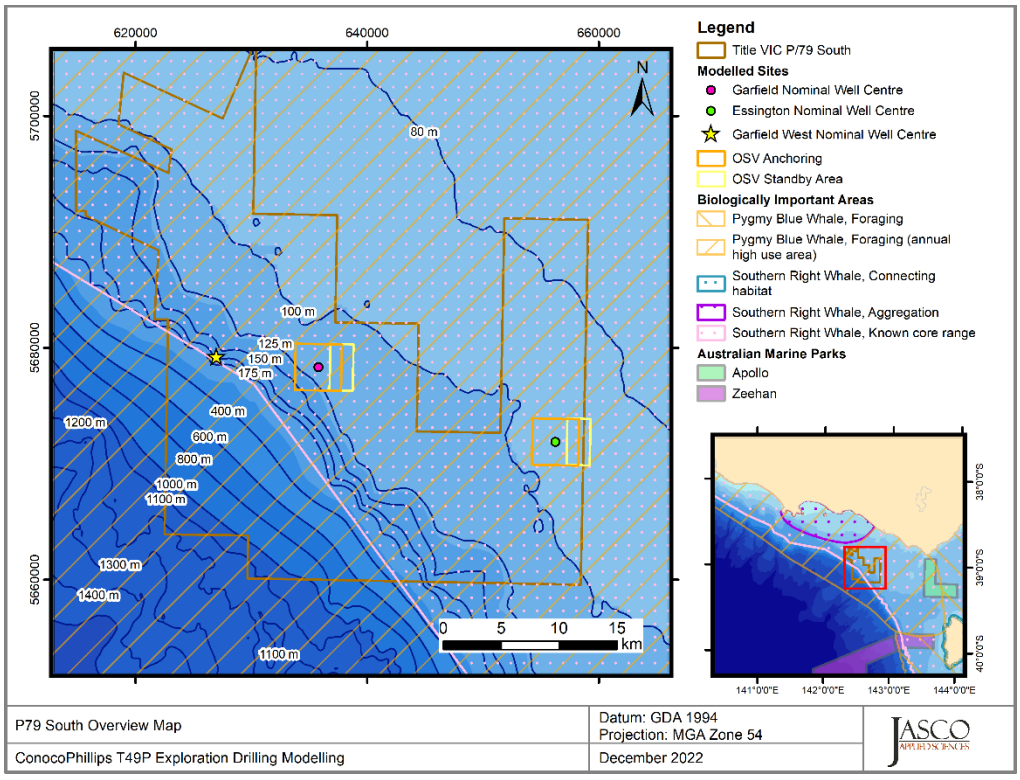


Figure 95. VIC/P79 Southern extent - Overview map of the Title and modelled sites.

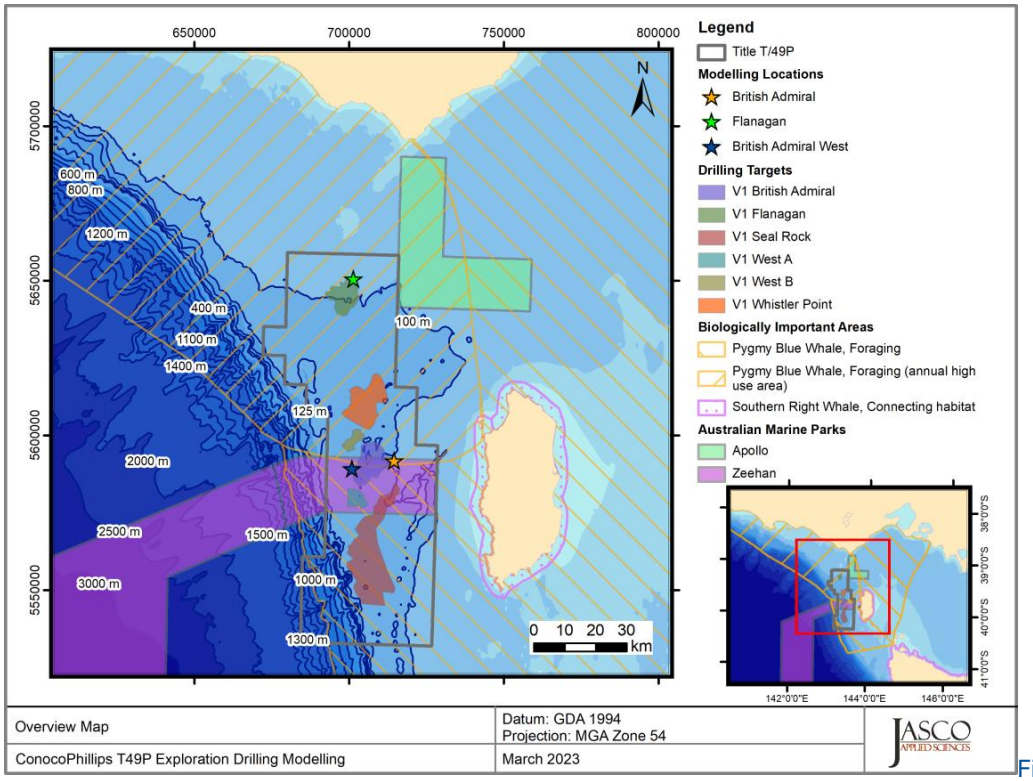


Figure 96. T49/P Overview map of all drilling targets modelled within T/49P.

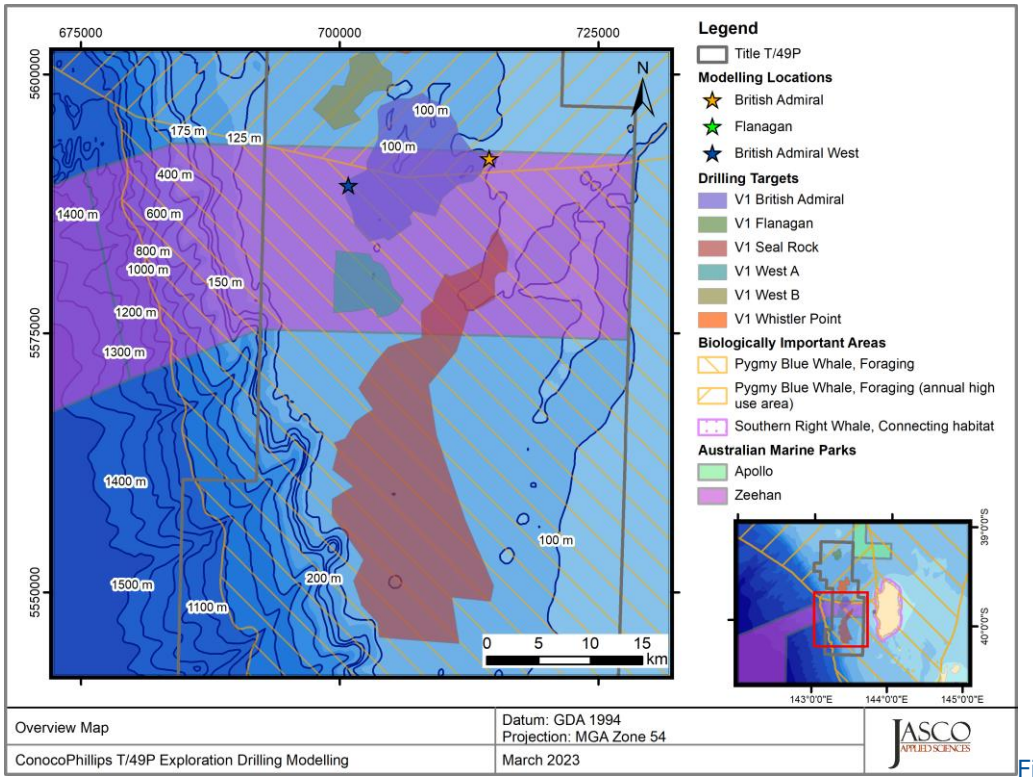


Figure 97. T49/P - Overview map of southern drilling targets and modelling sites within T/49P.

Table 46. Maximum (R_{max}) and 95% ($R_{95\%}$) horizontal distances (in km) to the marine mammal behavioural response criterion of 120 dB re 1 µPa (SPL) from the most appropriate location for considered sources per scenario.

Description	Merope (66 m depth)		Julpha (45 m depth)		Essington (93 m depth)		Garfield (110 m depth)		Garfield West (168 m depth)		British Admiral (102 m depth)		Flanagan (92 m depth)		British Admiral West (103 m depth)	
	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)	R_{max} (km)	$R_{95\%}$ (km)
Prelay: 1 × anchor handler working on site within 2 km of location	0.44	0.39	0.47	0.44	0.50	0.47	0.44	0.42	n/a	n/a	n/a	n/a	0.44	0.41	0.42	0.4
Mooring: Moored semi-sub idle (no noise); 1 × anchor handler on bridle on DP; 2 × anchor handlers working on site within 2 km of location	12.0	10.6	11.6	10.5	11.3	10.3	11.8	10.6	n/a	n/a	n/a	n/a	11.6	10.1	12.2	10.9
Drilling: Anchored MODU drilling	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.39	1.16	n/a	n/a	n/a	n/a	1.29	1.12
Drilling with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km	2.25	2.03	2.44	2.11	1.41	1.30	1.34	1.24	n/a	n/a	2.50	2.10	2.56	2.16	n/a	n/a
Drilling with resupply: Anchored MODU drilling; 1 × anchor handler at rig doing resupply (8 h)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22.8	18.9	n/a	n/a	n/a	n/a	10.0	9.13
Drilling, resupply, with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km; 1 × anchor handler at rig doing resupply (8 h)	12.6	10.8	12.2	10.9	11.4	10.4	12.0	10.9	n/a	n/a	11.4	10.4	12.0	10.9	n/a	n/a

DP: Dynamic Positioning, MODU: Mobile Offshore Drilling Unit

Table 47. Summary: Maximum (R_{max}) horizontal distances (in km) and ensonified area (km^2) for the frequency-weighted LF-cetacean SEL_{24h} temporary threshold shift (TTS) from the most appropriate location for the considered scenario.

Description	Merope (66 m depth)		Julpha (45 m depth)		Essington (93 m depth)		Garfield (110 m depth)		Garfield West (168 m depth)		British Admiral (102 m depth)		Flanagan (92 m depth)		British Admiral West (103 m depth)	
	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)	R_{max} (km)	Area (km^2)
Prelay: 1 × anchor handler working on site within 2 km of location	2.53	0.69	2.73	0.69	2.49	0.69	2.70	0.69	n/a	n/a	0.07	0.69	0.07	0.69	n/a	n/a
Mooring: Moored semi-sub idle (no noise); 1 × anchor handler on bridle on DP; 2 × anchor handlers working on site within 2 km of location	3.42	28.8	3.11	22.2	2.82	18.9	3.59	29.8	n/a	n/a	2.88	21.1	3.11	22.2	n/a	n/a
Drilling: Anchored MODU drilling	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.23	0.16	n/a	n/a	n/a	n/a	0.42	0.4
Drilling with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km	0.41	1.09	0.41	1.13	0.39	1.03	0.46	1.23	n/a	n/a	0.41	1.08	0.40	1.12	n/a	n/a
Drilling with resupply: Anchored MODU drilling; 1 × anchor handler at rig doing resupply (8 h)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.30	11.5	n/a	n/a	n/a	n/a	1.66	7.00
Drilling, resupply, with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km; 1 × anchor handler at rig doing resupply (8 h)	1.93	7.98	1.62	7.81	1.62	6.98	1.64	11.1	n/a	n/a	3.37	7.93	3.29	8.02	n/a	n/a

DP: Dynamic Positioning, MODU: Mobile Offshore Drilling Unit

Table 48. Statistics for Maximum (R_{max}) horizontal distances (in km) to the marine mammal behavioural response criterion of 120 dB re 1 µPa (SPL) for all results presented in Table 46.

Description	Minimum R_{max} (km)	Maximum R_{max} (km)	Mean R_{max} (km)
Prelay: 1 × anchor handler working on site within 2 km of location	0.42	0.5	0.45
Mooring: Moored semi-sub idle (no noise); 1 × anchor handler on bridle on DP; 2 × anchor handlers working on site within 2 km of location	11.3	12.2	11.75
Drilling: Anchored MODU drilling	1.29	1.39	1.34
Drilling with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km	1.34	2.56	2.08
Drilling with resupply: Anchored MODU drilling; 1 × anchor handler at rig doing resupply (8 h)	10	22.8	16.4
Drilling, resupply, with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km; 1 × anchor handler at rig doing resupply (8 h)	11.4	12.6	11.93

Table 49. Statistics for Maximum (R_{max}) horizontal distances (in km) to the frequency-weighted LF-cetacean SEL_{24h} temporary threshold shift (TTS) for all results presented in Table 47.

Description	Minimum R_{max} (km)	Maximum R_{max} (km)	Mean R_{max} (km)
Prelay: 1 × anchor handler working on site within 2 km of location	0.07	2.73	2.10
Mooring: Moored semi-sub idle (no noise); 1 × anchor handler on bridle on DP; 2 × anchor handlers working on site within 2 km of location	2.82	3.59	3.21
Drilling: Anchored MODU drilling	0.23	0.42	0.33
Drilling with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km	0.39	0.46	0.41
Drilling with resupply: Anchored MODU drilling; 1 × anchor handler at rig doing resupply (8 h)	1.66	2.3	1.98
Drilling, resupply, with standby vessel: Anchored MODU drilling; 1 × anchor handler on standby within 2 km; 1 × anchor handler at rig doing resupply (8 h)	1.62	3.37	2.25

APPENDIX H ZTV MODELLING REPORTS

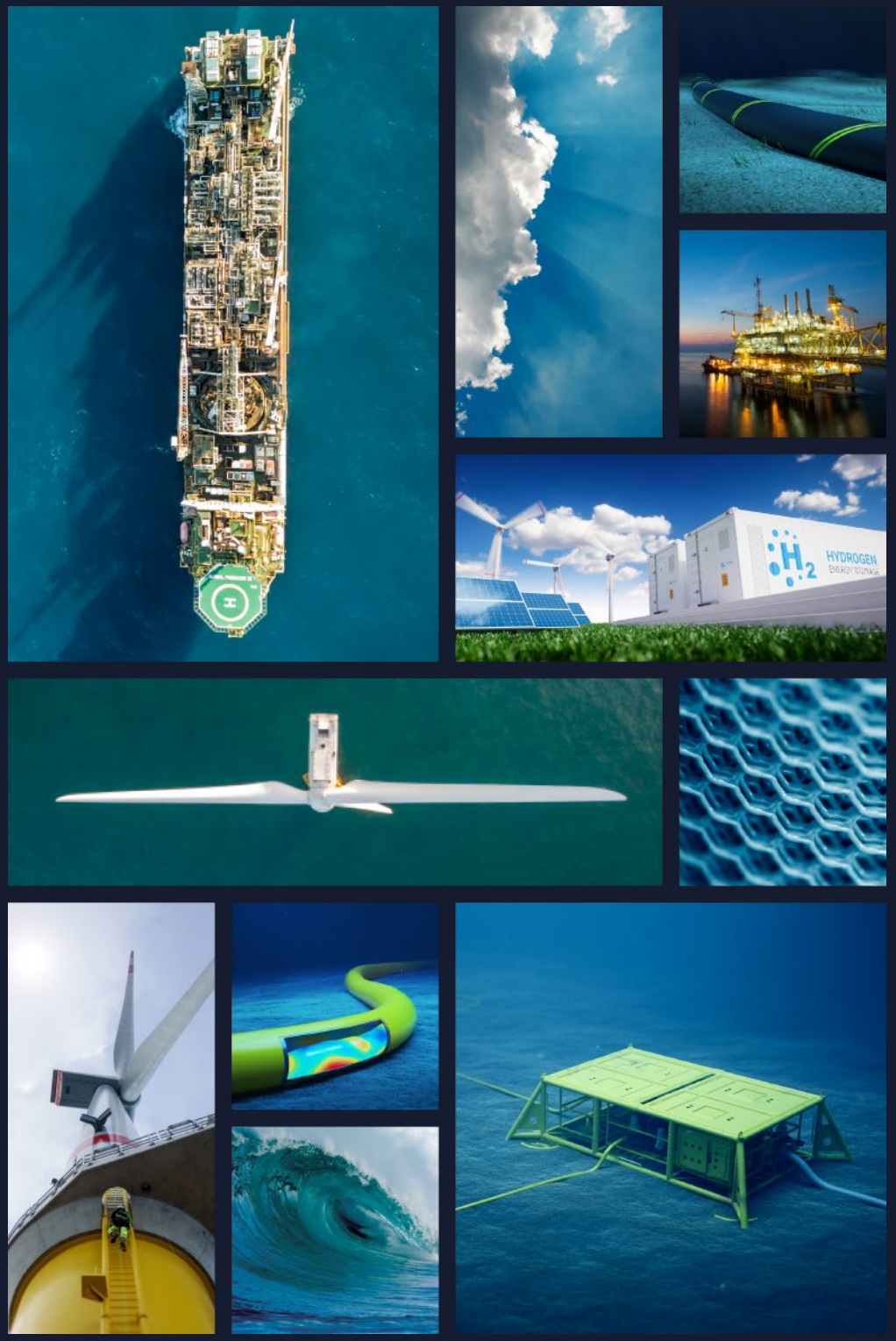
XODUS

Technical Note: Sensitivity Analysis on Flaring for T/49P Otway Drilling EP

ConocoPhillips Australia

P-100273-S00-A-REPT-005

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Technical Note: Sensitivity Analysis on Flaring

CONFIDENTIAL

P-100273-S00-A-REPT-005

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REV	DATE	DESCRIPTION	ISSUED BY	CHECKED BY	APPROVED BY	CLIENT APPROVAL
A	08/03/2023	Issued for Review	[redacted]	[redacted]	[redacted]	COP

INTRODUCTION

The Otway Exploration Drilling Campaign is located within Commonwealth waters in the Bass Strait in an area centred approximately 37.9 km offshore Victoria (VIC) and approximately 14.3 km west of King Island as pictured in Figure 1.

The field lies in approximately 90-120 m of water within permit T/49P. ConocoPhillips Australia plan to execute an exploration well drilling campaign within T/49P.

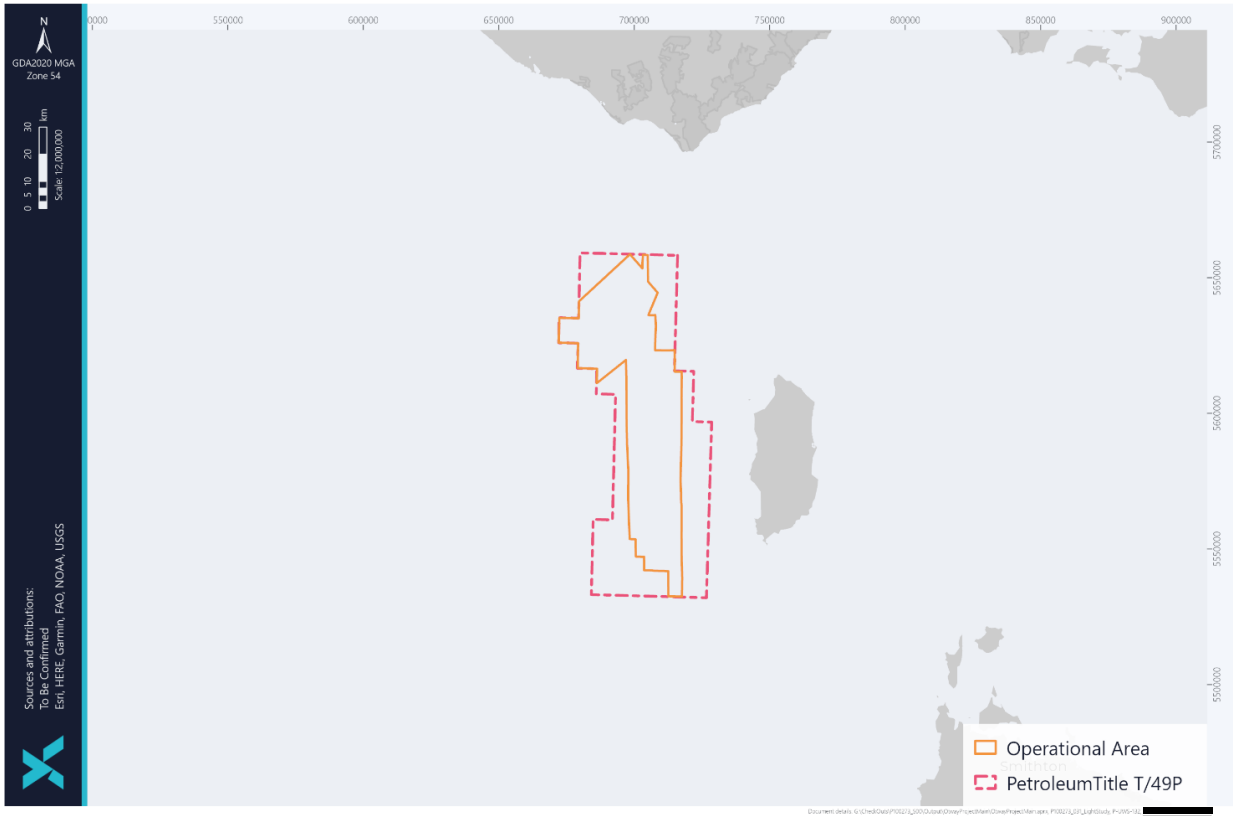


Figure 1: Operational area and potential well locations

SCOPE

Related work:

'P-100273-S00-A-REPT-003 Light Modelling Report' has been produced on 28/2/2023, presenting the light emissions modelling results for T/49P with a maximum flare rate of 25 MMscfd.

- Visible light exposure area (at horizon): 45 km
- Potential Impact Area (at 25 MMscfd flaring): 40 km

This technical note:

Following the previous work, the aim and objective of this technical note is to present the sensitivity analysis on the flare rate, to investigate how the flaring affects the potential impact area.

- Flare rate will be varied from 0 (no flare), to 50 MMscfd
- An interactive plot (link to an HTML) will be provided to show the potential impact area*

*The Potential Impact Area is defined as "The spatial extent of a measurable change in ambient light that is predicted to occur from the exploration campaign. The threshold for this area is an illuminance equivalent to ambient light on a moonless clear night sky/new moon (<0.001 lux). This is the area relevant to the impact assessment for planned light emissions from the exploration campaign."

METHODOLOGY

The methodology of light emissions modelling follows that in ‘P-100273-S00-A-REPT-003 Light Modelling Report’.

To evaluate the sensitivity analysis on flaring, the light emissions modelling was conducted with the use of Python with the following procedure:

1. The flare rate was varied as such: 'No flaring', '5 MMscfd', '15 MMscfd', '25 MMscfd', '40 MMscfd', '50 MMscfd’.
2. The line of sight distance was estimated.
3. The illuminance (light intensity) distance was estimated.
4. The line of sight and illuminance distances at various flare rates were plotted on a map in HTML format.

RESULTS INTERPRETATION

For interactivity, please

(1) Click on this link to **download** the html file titled 'flare_sensitivity_analysis.html' , then

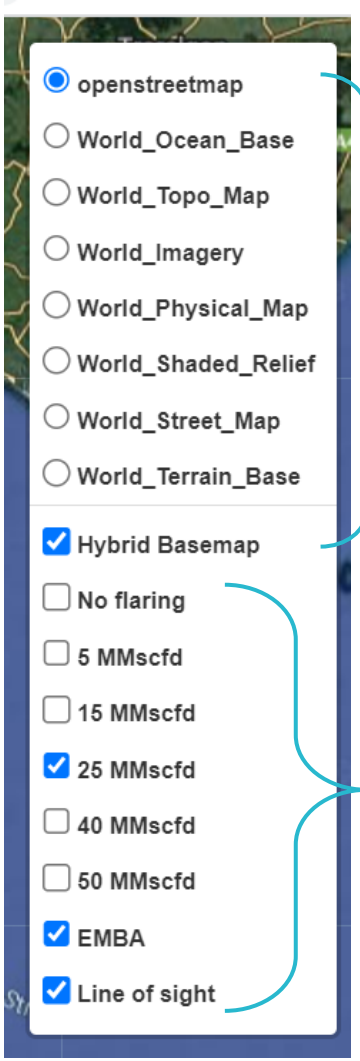
(2) Open with a browser (need to first download the html file to your computer first and open with a browser).

Download link: flare_sensitivity_analysis.html

Note that the legends are all **draggable**, select preferred base map and flare rates by clicking on the layer control button on the top right corner of the page.

Layer control button





RESULTS

Visible Light Exposure Area (Line of Sight) and Potential Impact Area at 25 MMscfd

The visible line of sight distance – Visible Light Exposure Area is not affected by the flare rates, but instead, the height of the highest infrastructure - seen as a dot on the horizon.

The highest infrastructure for T/49P was taken as 120 m (derrick, navigational lights).

Visible line of sight distance = **45 km** (the green line in Figure 2)

Click here to **download** the html file to your computer and open with a browser

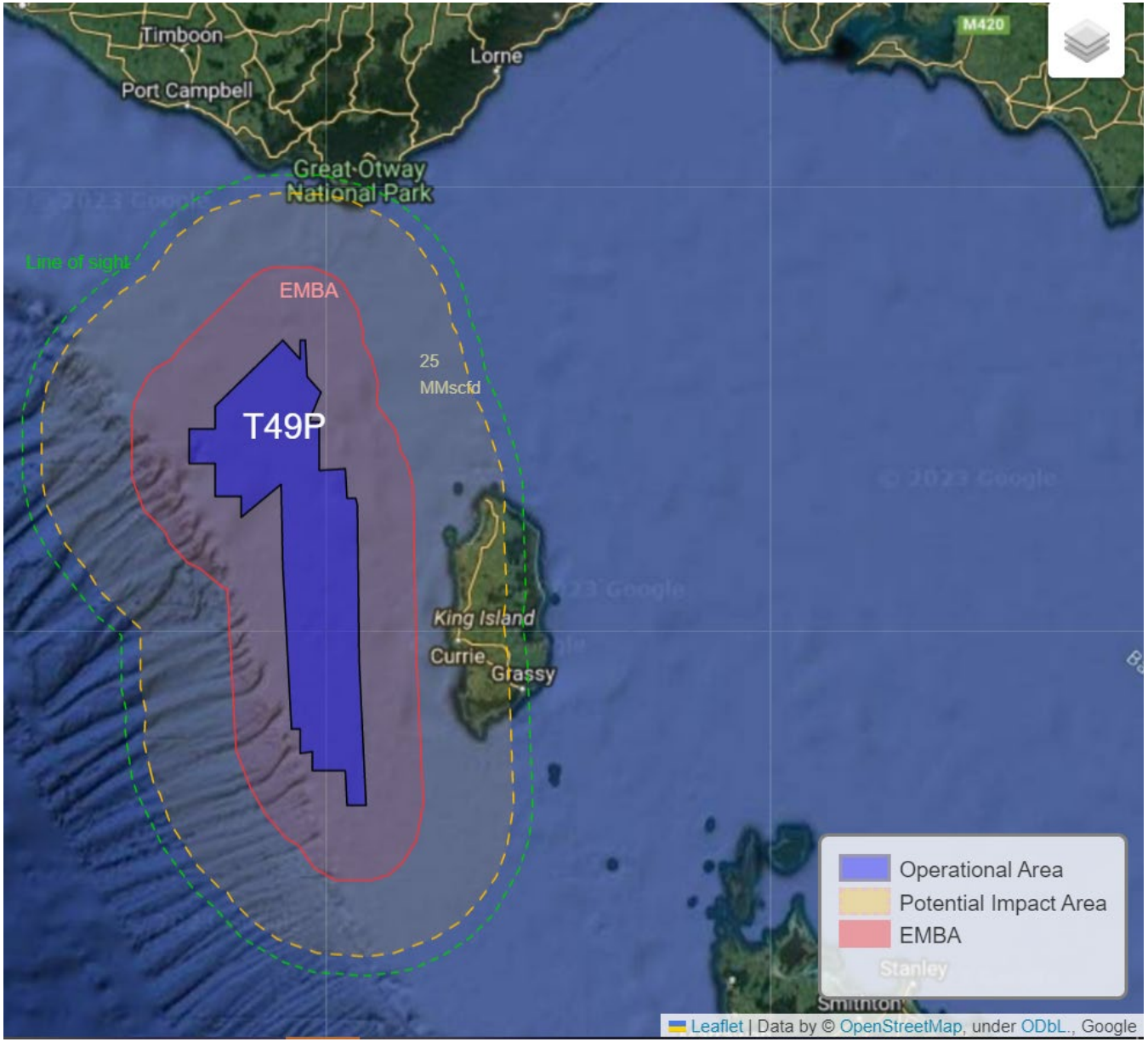


Figure 2: Visible Light Exposure Area and Potential Impact Area at 25 MMscfd

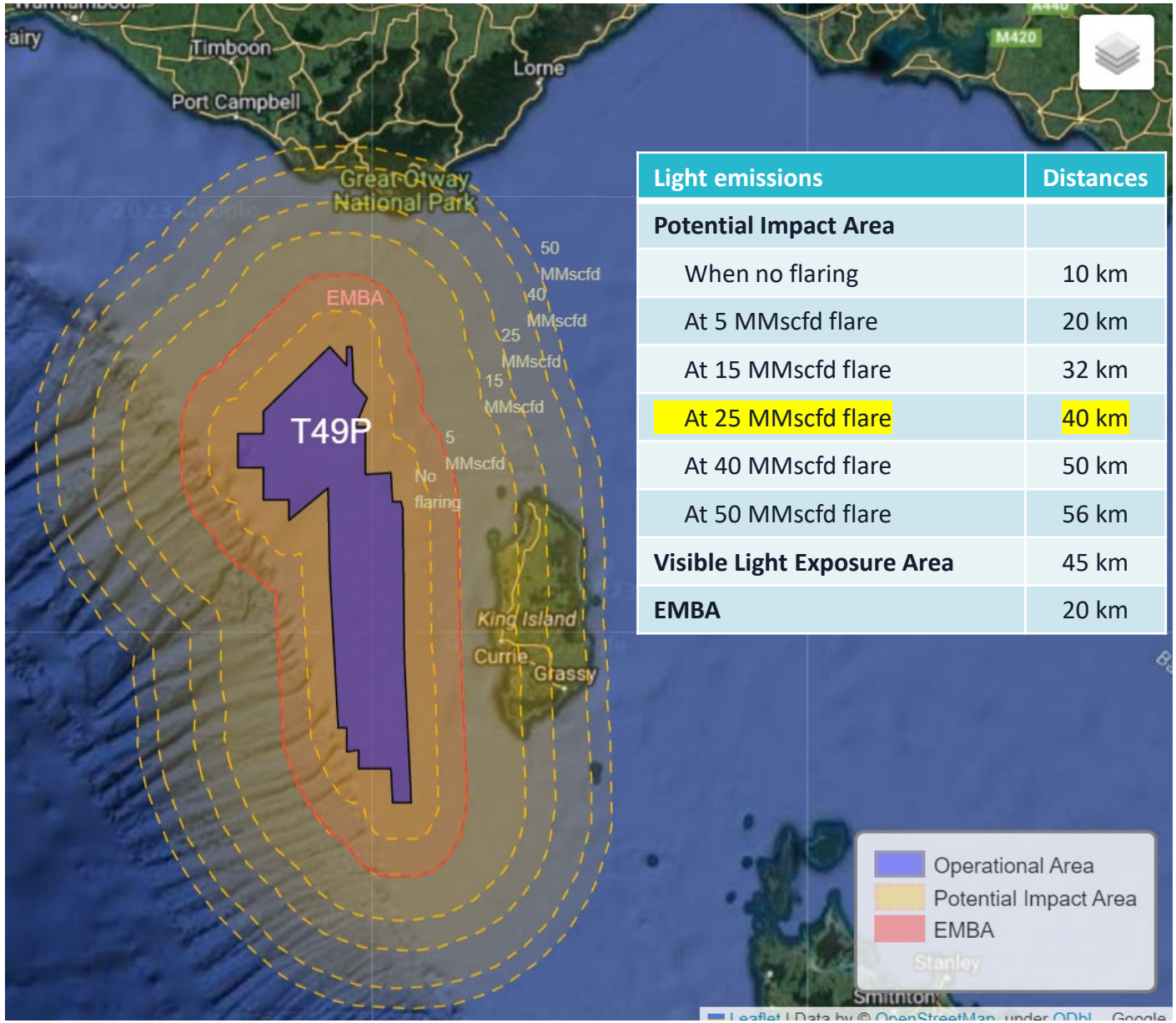
RESULTS

Potential Impact Area at various flare rates

The illuminance (light intensity) distances which indicate the Potential Impact Area for ambient light level of less than 0.001 lux are given in Figure 3.

With no flaring, the potential impact area is 10 km, and increases to **40 km at 25 MMscfd**, and 50 km at 40 MMscfd.

Click here to **download** the html file to your computer and open with a browser



Light emissions	Distances
Potential Impact Area	
When no flaring	10 km
At 5 MMscfd flare	20 km
At 15 MMscfd flare	32 km
At 25 MMscfd flare	40 km
At 40 MMscfd flare	50 km
At 50 MMscfd flare	56 km
Visible Light Exposure Area	45 km
EMBA	20 km

Figure 3: Potential Impact Area at various flare rates

CONCLUSIONS

The spatial extent potentially impacted by visible light from flaring and MODU lighting, as a visible dot on the horizon, is out to a distance of 45 km from the position of the MODU (Figure 2).

During the operational phase of the Otway Drilling, the Potential Impact Area for flare lighting is 40 km from the expected position of the MODU during flaring, which will reduce to 10 km from the expected position of the MODU when not flaring (Figure 3).

It is noted that for the nearby towns at the adjacent mainland at various flare rates, the light intensity levels are comparable to the ambient light levels less than a quarter moon (<0.01 lux), and less than a moonless clear night sky (<0.001 lux), equivalent to the 'First Quarter' and 'New' moon phases in Figure 4.

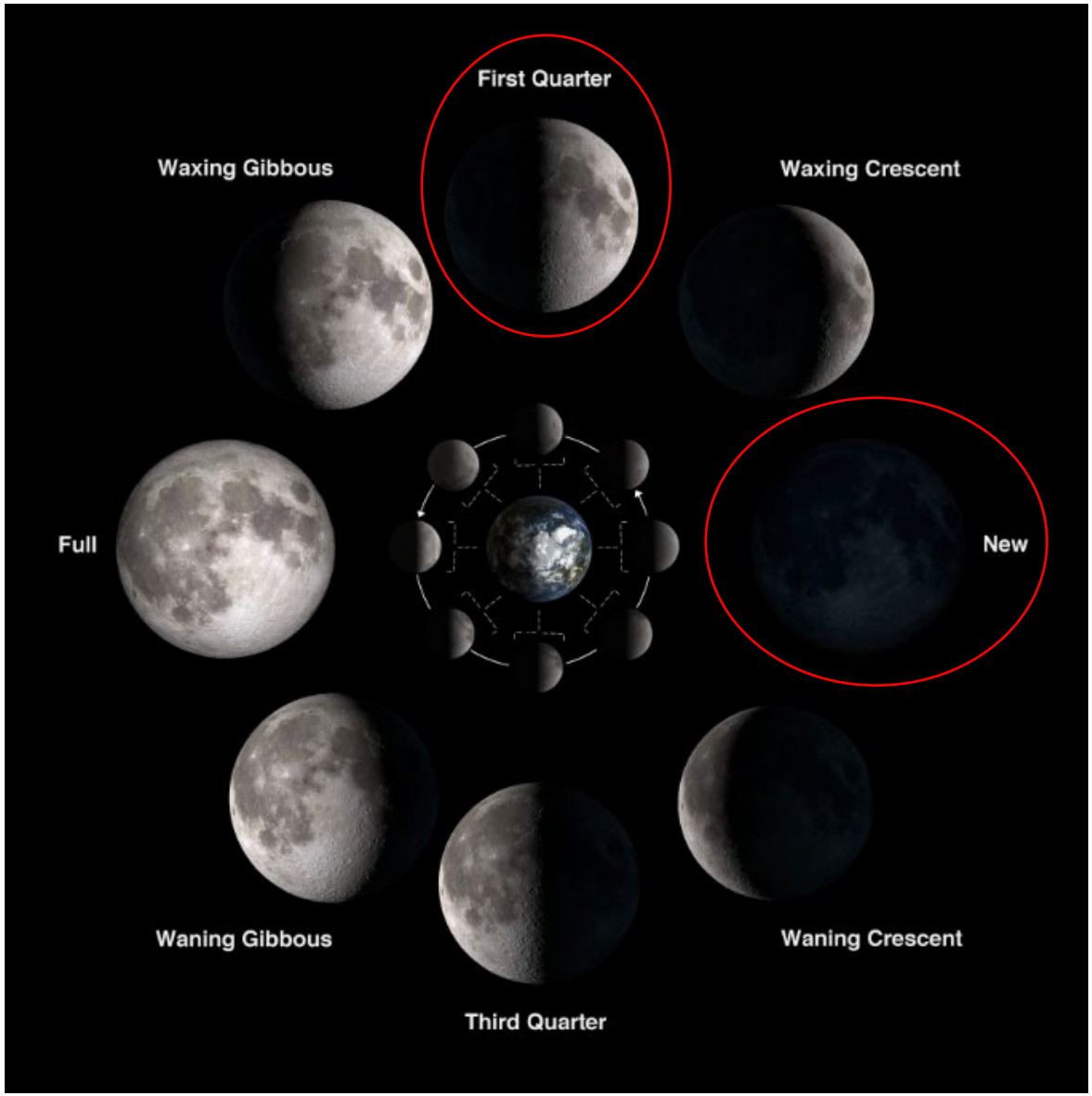


Figure 4: The moon phases Credit: NASA/Bill Dunford [1]

REFERENCES

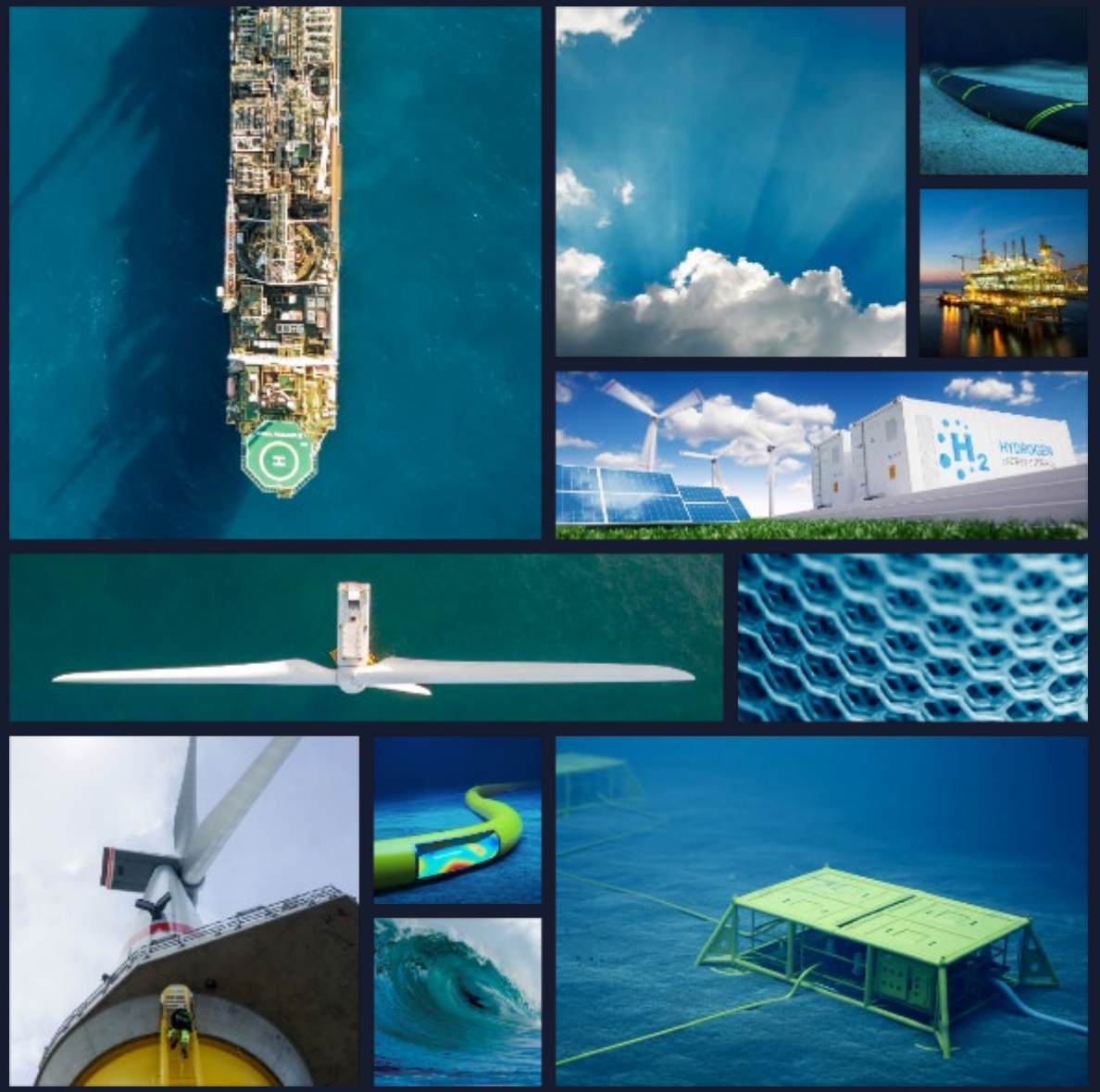
[1] Johnston B.G., 2020. The Next Full Moon is the Strawberry Moon [WWW Document]. NASA Solar System Exploration. URL https://solarsystem.nasa.gov/news/1257/the-next-full-moon-is-the-strawberry-moon (accessed 12.14.22).

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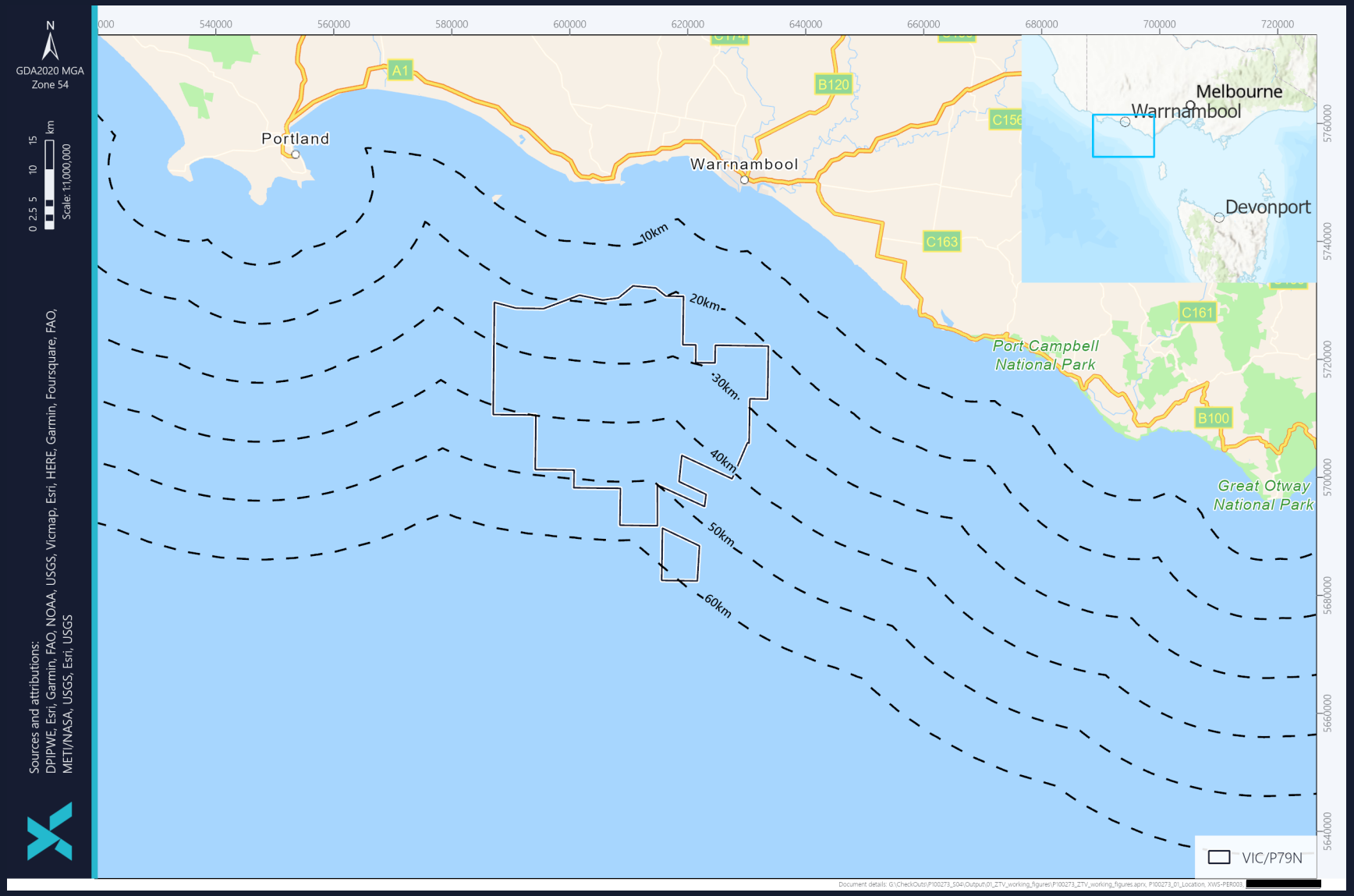
Zone of Theoretical Visibility (NORTH)

Geospatial visibility analysis of exploration activities within the northern extent of VIC/P79

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Target area VIC/79 (North)

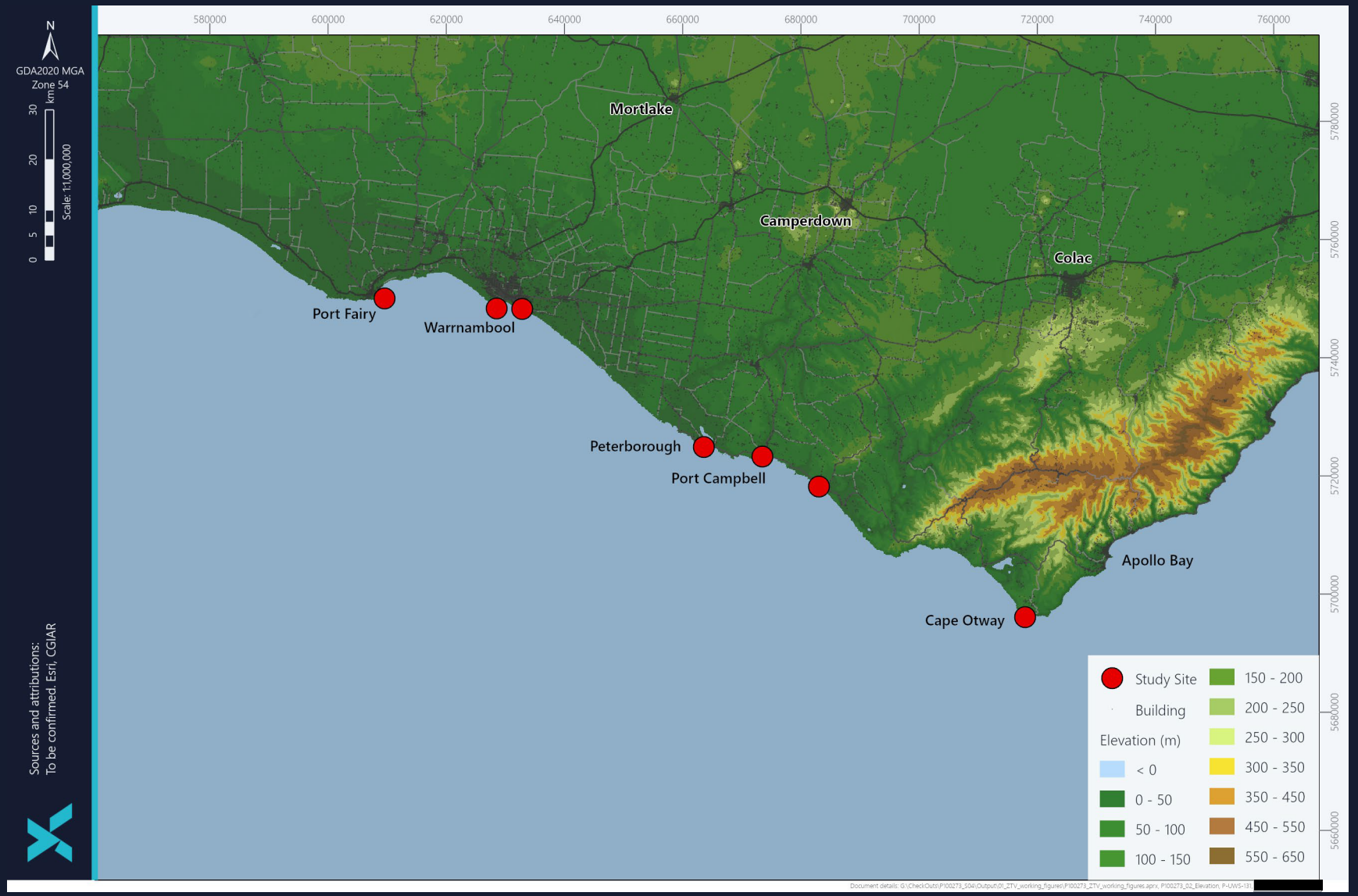


The Otway Basin is located along the southern coast of Victoria, west of Melbourne.

The objective of this technical note is to present the outcomes of the assessment undertaken to estimate the Visual Impact from the project.

The study assess visibility of a platform from selected viewing locations.

Otway Coast Elevation and Infrastructure



The elevation of the region is diverse.

Great Otway National Park to the east has a mountain range pushing elevations up into the 600-650m range.

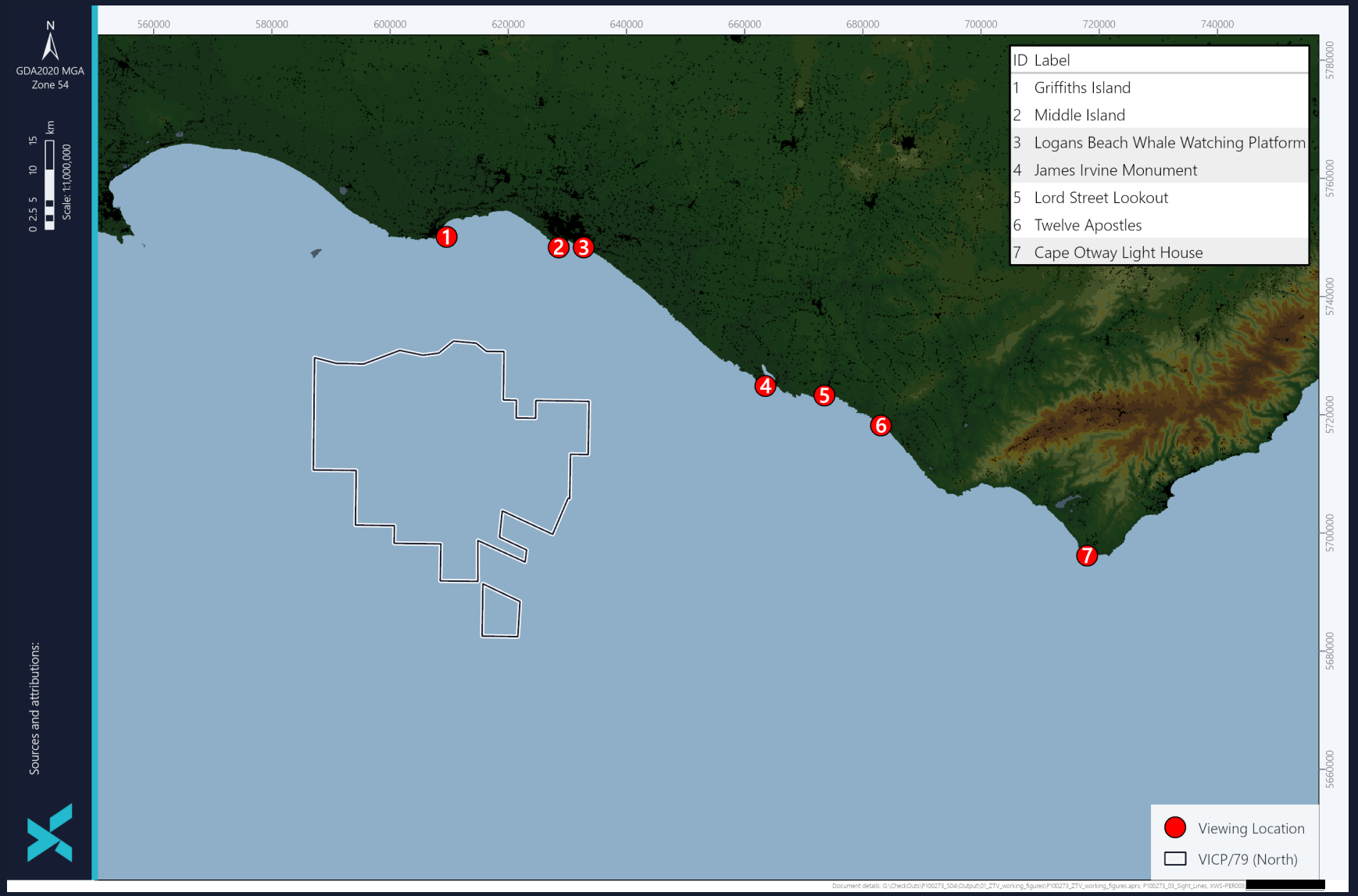
Travelling north west from the national park, the terrain drops down into rolling hills and eventually flattens out into vast lower elevation agricultural plains.

There are several towns and one larger regional hub, Warrnambool.

The coastline's unique geography/geology attracts tourists and therefore, has a series of viewing locations.

The Great Ocean Road tourism district (which includes this study area) attracted 7,038,000 people pre Covid-19 (2019).

Otway Coast Viewing Locations



For this study, seven locations were chosen based on the following factors:

1. Elevation
2. Visual access
3. Tourism amenity
4. Proximity to a point of interest

Griffiths Island
A tourism site at Port Fairy.

Middle Island
A prominent tourist attraction at Warrnambool with an elevated position for site seeing.

Logans Beach Whale Watching Platform
A prominent tourist attraction at Warrnambool with an elevated position for site seeing.

James Irvine Monument
A tourism site at Peterborough, has high visual amenity.

Lord Street Lookout
A tourism site at Port Campbell, has high visual amenity.

Twelve Apostles
A prominent tourist attraction with an elevated position for site seeing.

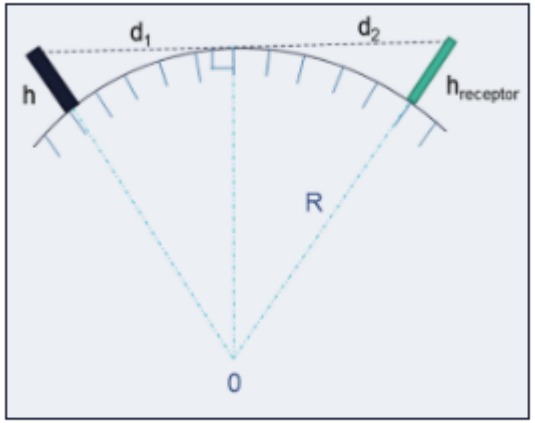
Cape Otway Light House
A tourism site with high visual amenity and elevated position.

Line of Sight Calculation

$$d = \left(2 \blacksquare \frac{4}{3} R h_1 + h_1^2\right)^{0.5} + \left(2 \blacksquare \frac{4}{3} R h_2 + h_2^2\right)^{0.5}$$

Where

- h_1 = height of object
- h_2 = height of receptor
- R = radius of earth
- d = total line of sight $(d_1 + d_2)$



Line of sight and Viewshed analyses are conducted using the standard calculation above.

The calculation determines a viewers (h) visible horizon limit (d_1). And if applicable, the observable distance of an object ($h_{receptor}$) beyond the horizon ($d_1 + d_2$).

As elevation/height of an observer increases, so does the distance to the horizon. Likewise, the viewable distance of an object beyond the horizon increases with it's elevation/height.

This assumes no adverse atmospheric conditions or obstructed field of view.

Calculated Viewshed

Label	Name	Elevation (m)	Horizon (km)	40 m Deck (km)	120 m Derrick (km)
1	Griffiths Island	3	8	30.6	47.1
2	Middle Island	14	14.3	36.9	53.4
3	Logans Beach Whale Watching Platform	20	16.7	39.3	55.8
4	James Irvine Monument	8	11.3	33.9	50.4
5	Lord Street Lookout	25	18.5	41.1	57.7
6	Twelve Apostles	43	23.9	46.5	63
7	Cape Otway Light House	91	34.4	57	73.5

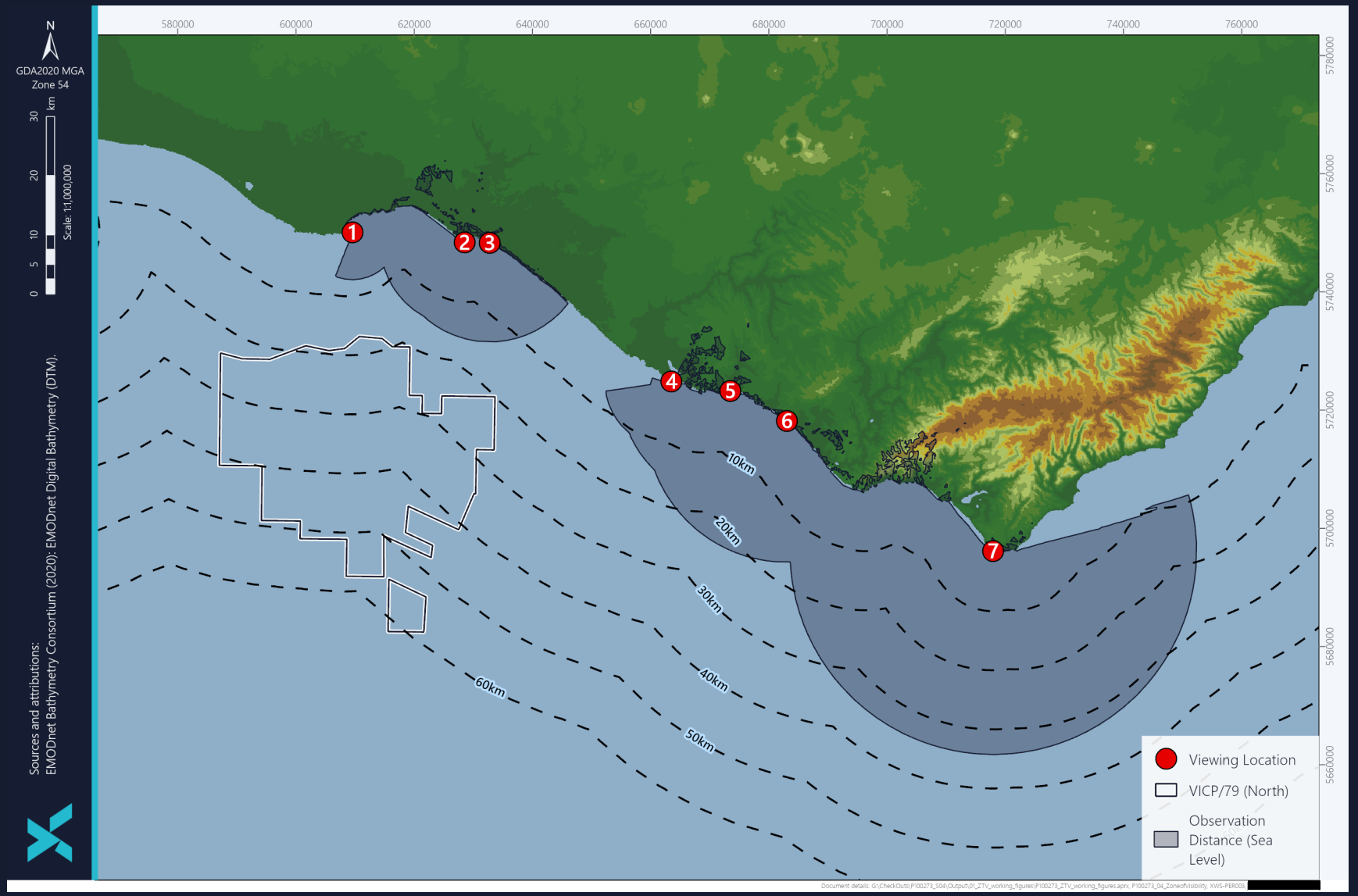
These values represent the inputs (Elevation) and outputs (Horizon or Deck/Platform) of the calculated visibilities.

A 2 m tall observer at Griffiths Island (approximately 5 m above sea level) will see 34.4 km to the horizon. A 40 m high object will appear above the horizon to the observer up to 57 km away, and a 120 m high object will appear above the horizon up to 73.5 km away.

A main deck height of 40m and worst case scenario derrick height of 120 m has been used in this study. These represent the likely heights

Each location's elevation has had 2 m added as the elevation, to create the observers height.

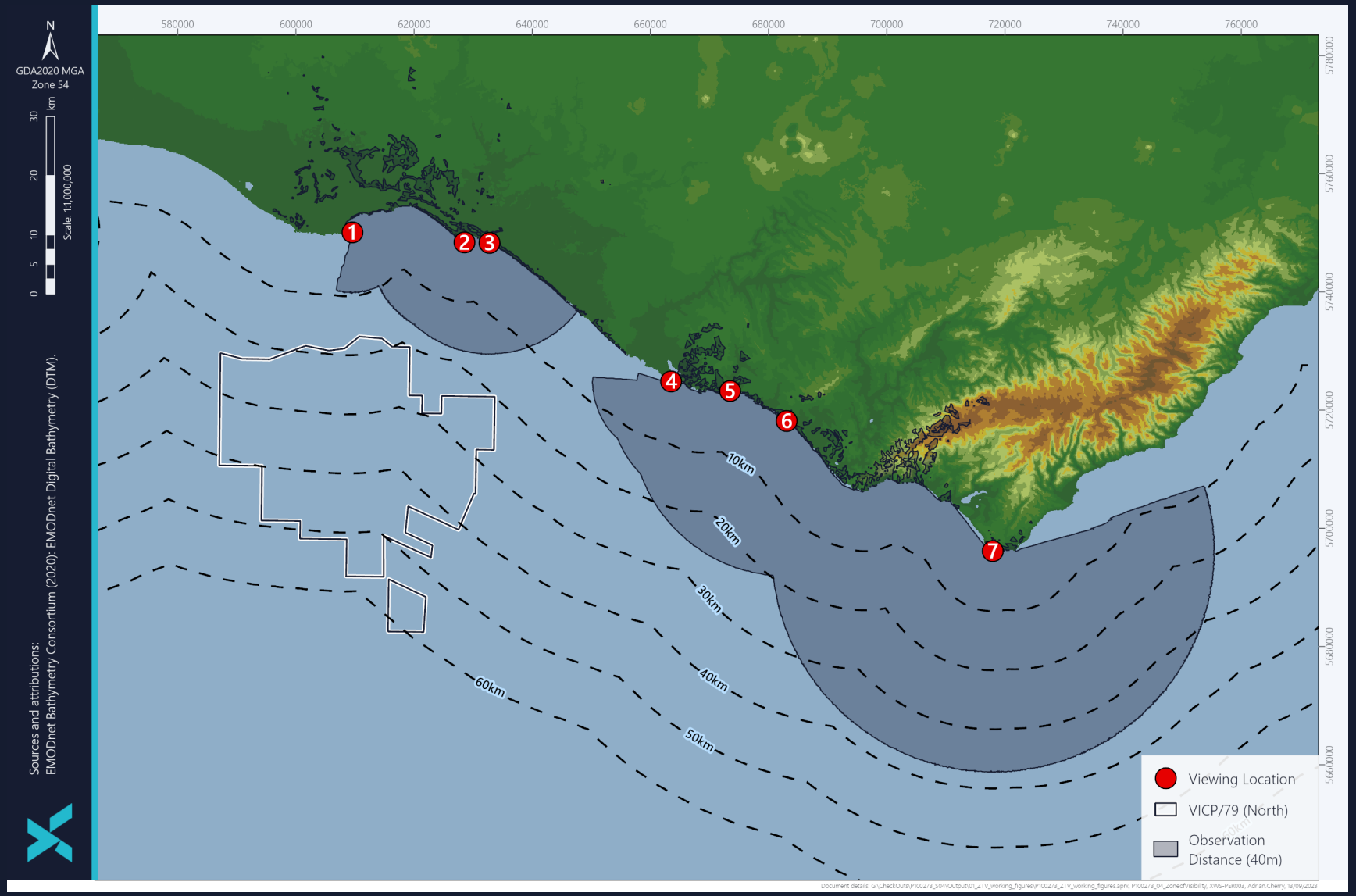
Otway Basin Viewshed for Sea Level Horizon



The fans of visibility (viewshed) represent the maximum viewable area from each location. As is demonstrated, the areas are dissected by local obstructions (islands and other landforms).

The permit area (at sea level) is partially visible from only a single location.

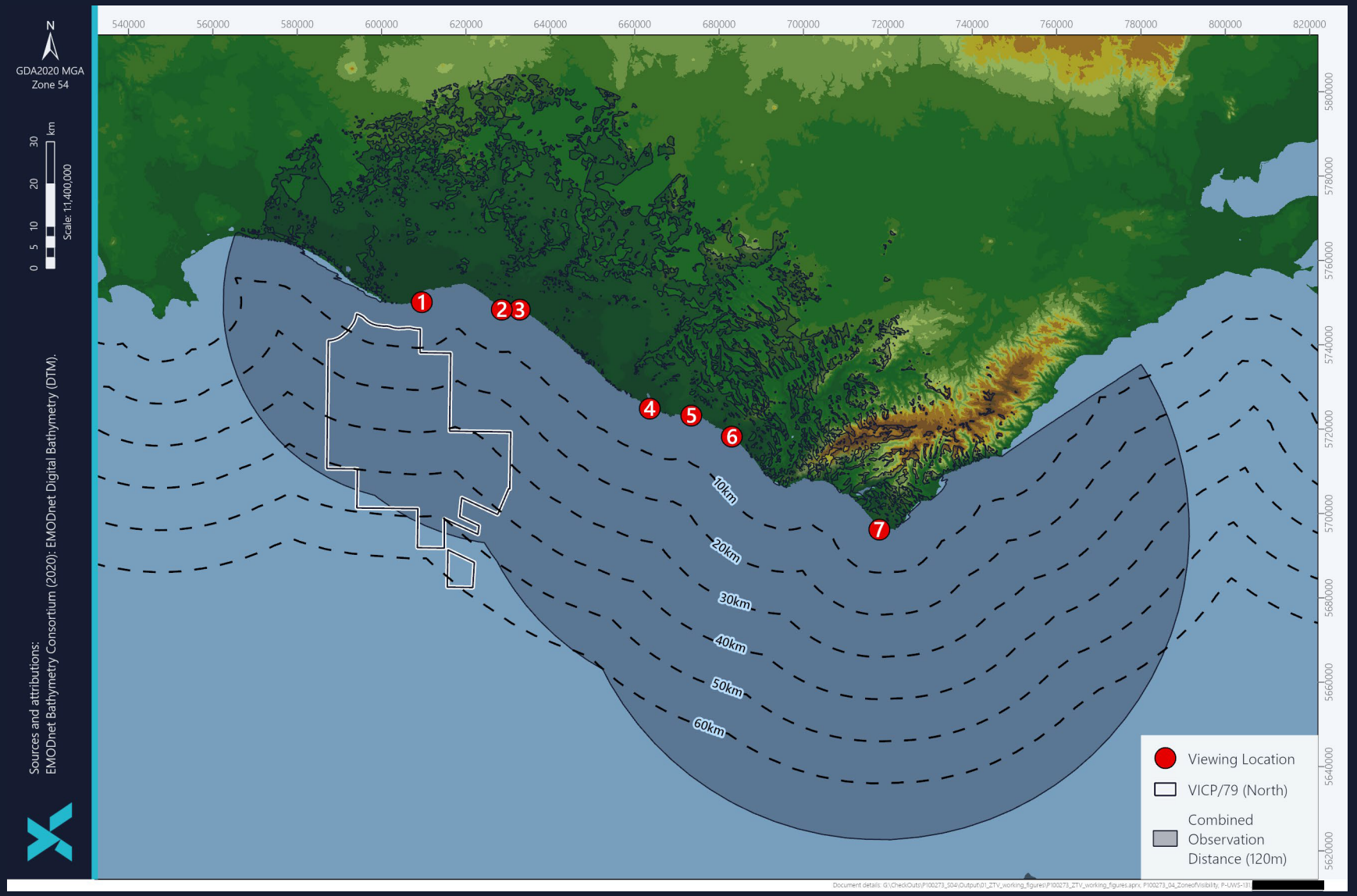
Otway Basin Viewshed for 40 metre high object



The fans of visibility represent the maximum viewable area of a 40 m high deck from each location.

The vast majority of the permit area can host a 40 m high deck without visual impact.

Otway Basin Viewshed for 120 m high object

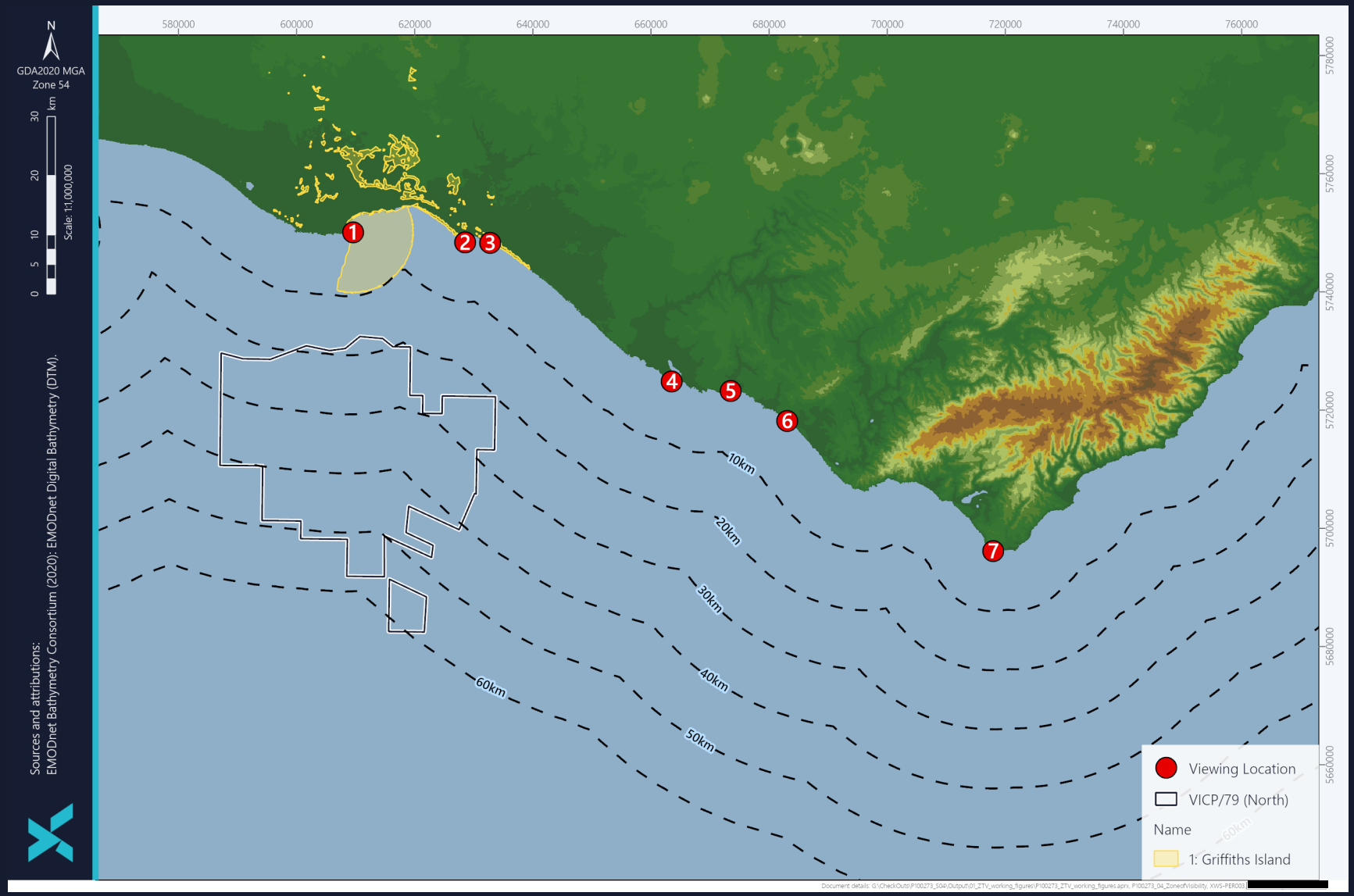


The fans of visibility represent the maximum viewable area of a 120 m high platform from each location.

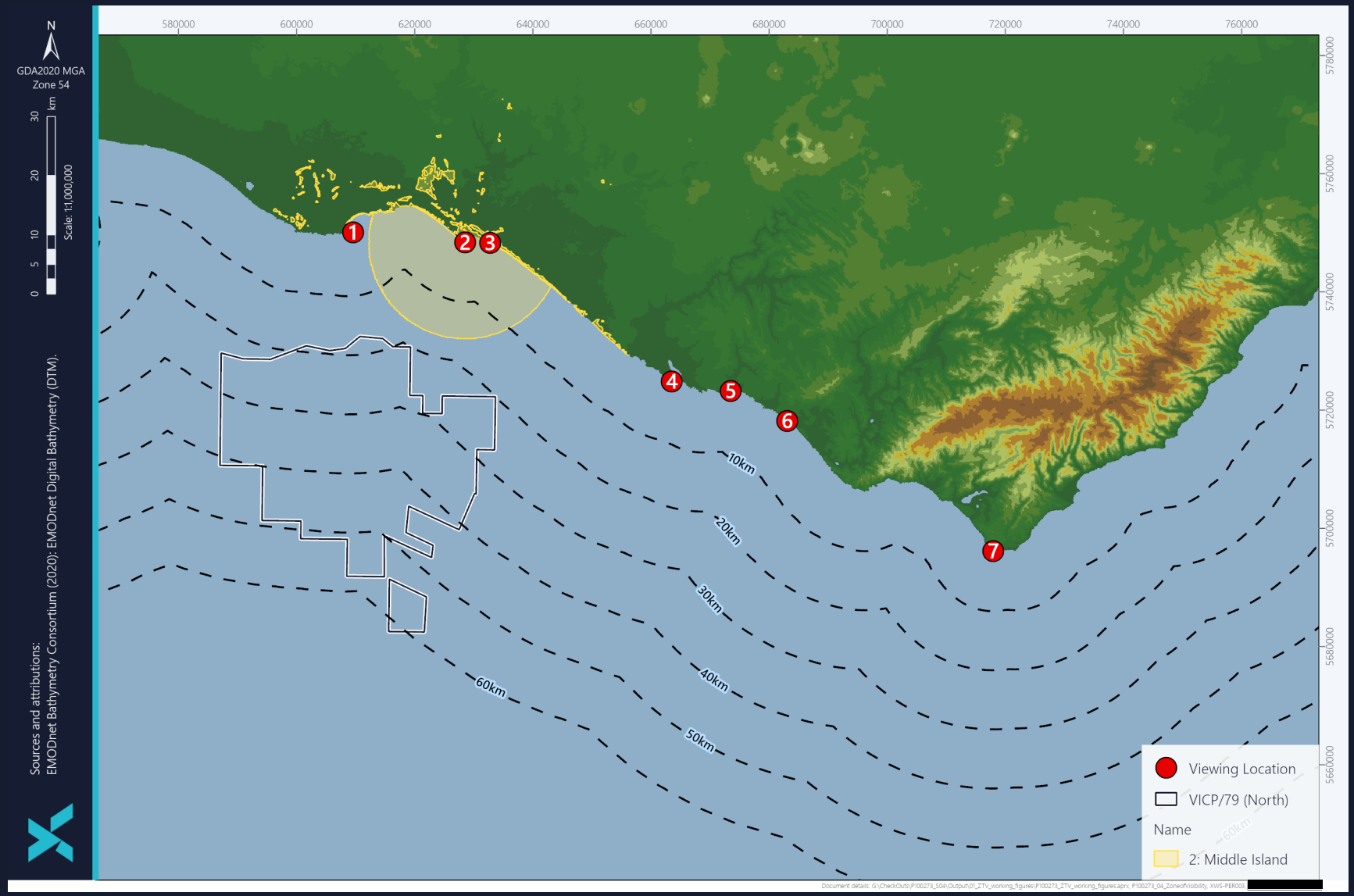
A 120 m high derrick will be visible from the western most viewing sites, and likely not visible from the eastern most (see individual viewshed images).

Very little of the permit area can host a 120 m high derrick that is not visible from at least one of the viewing sites.

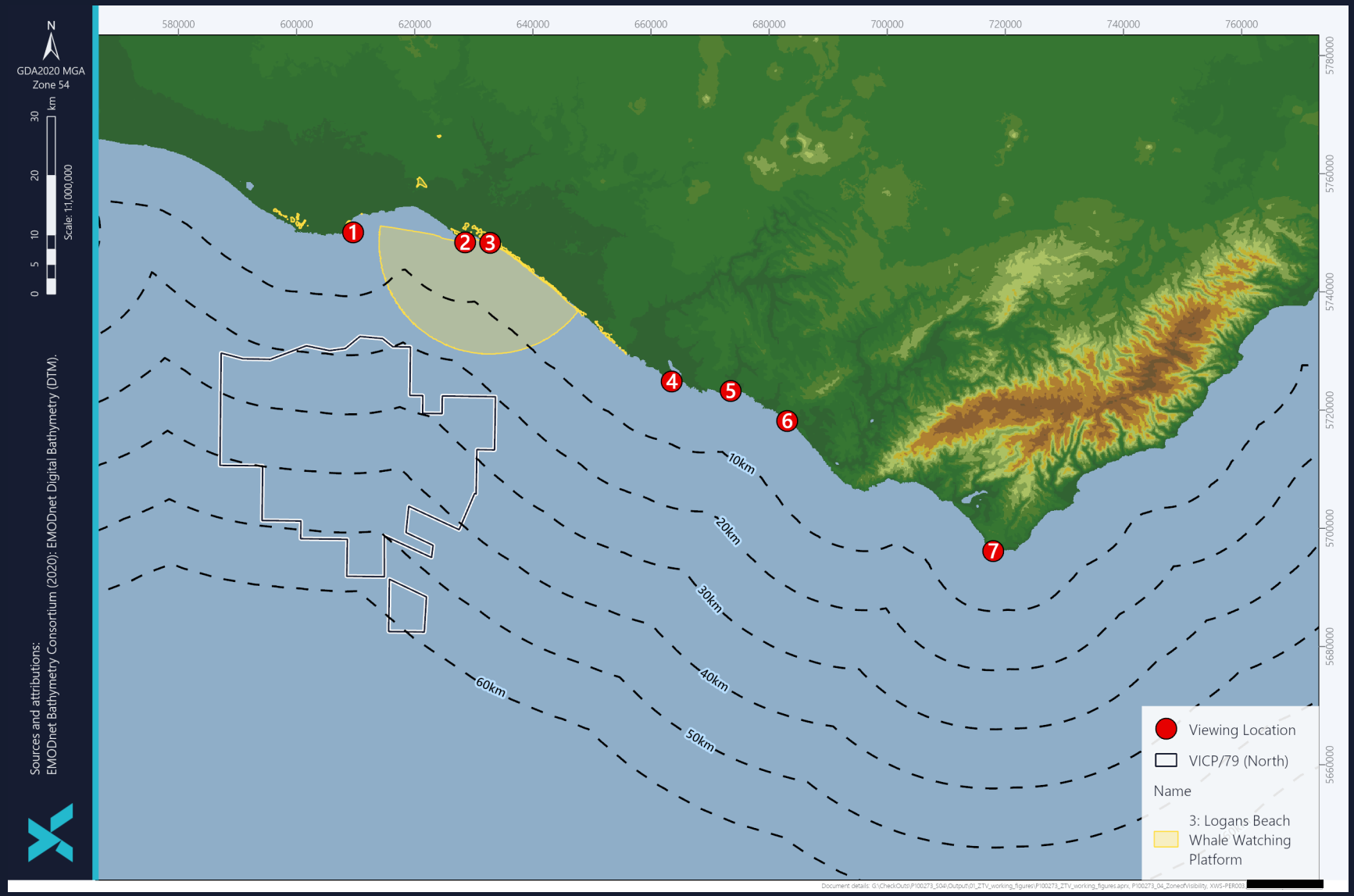
Site 1 viewshed for 40 m high object



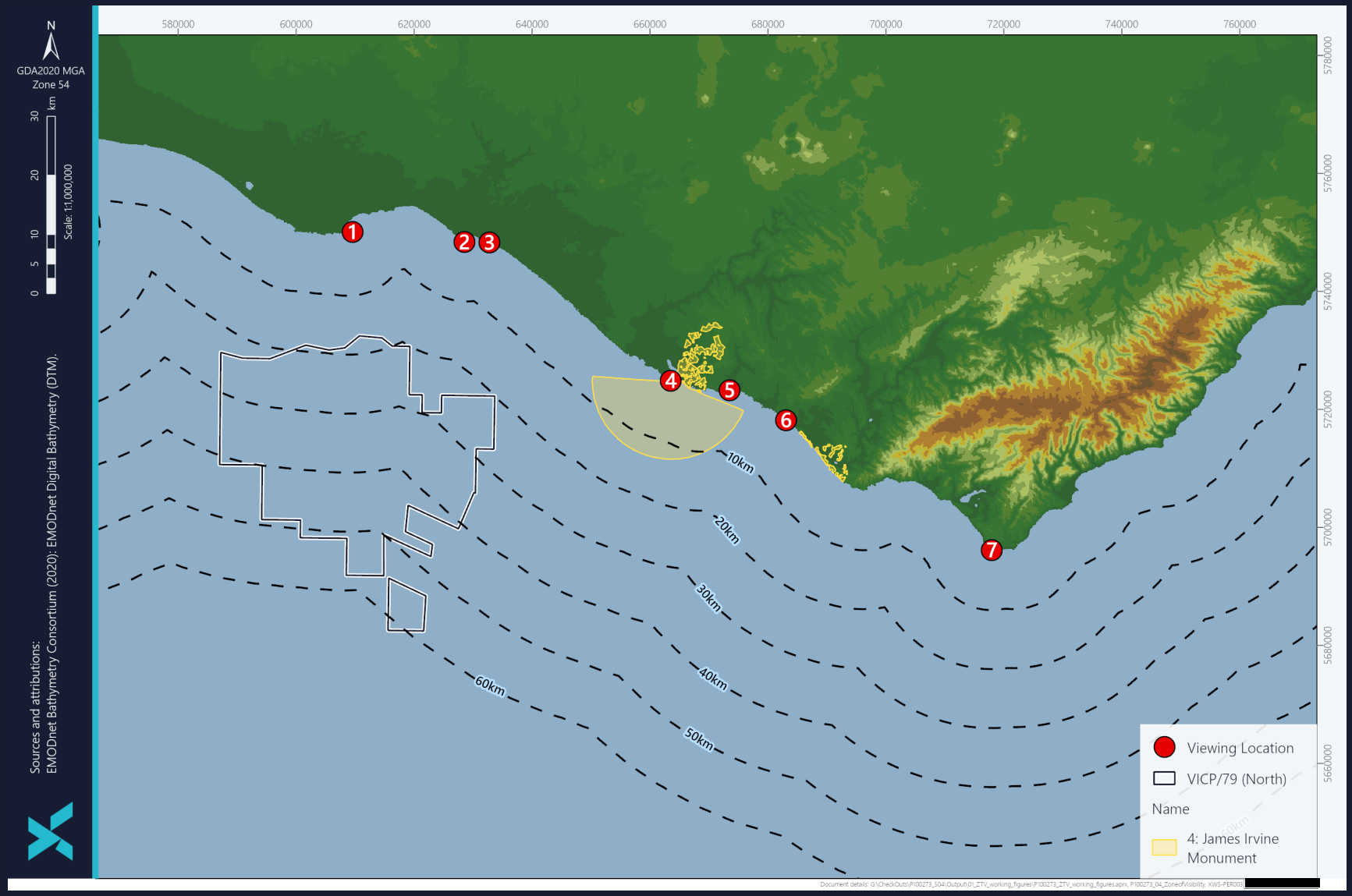
Site 2 viewshed for 40 m high object



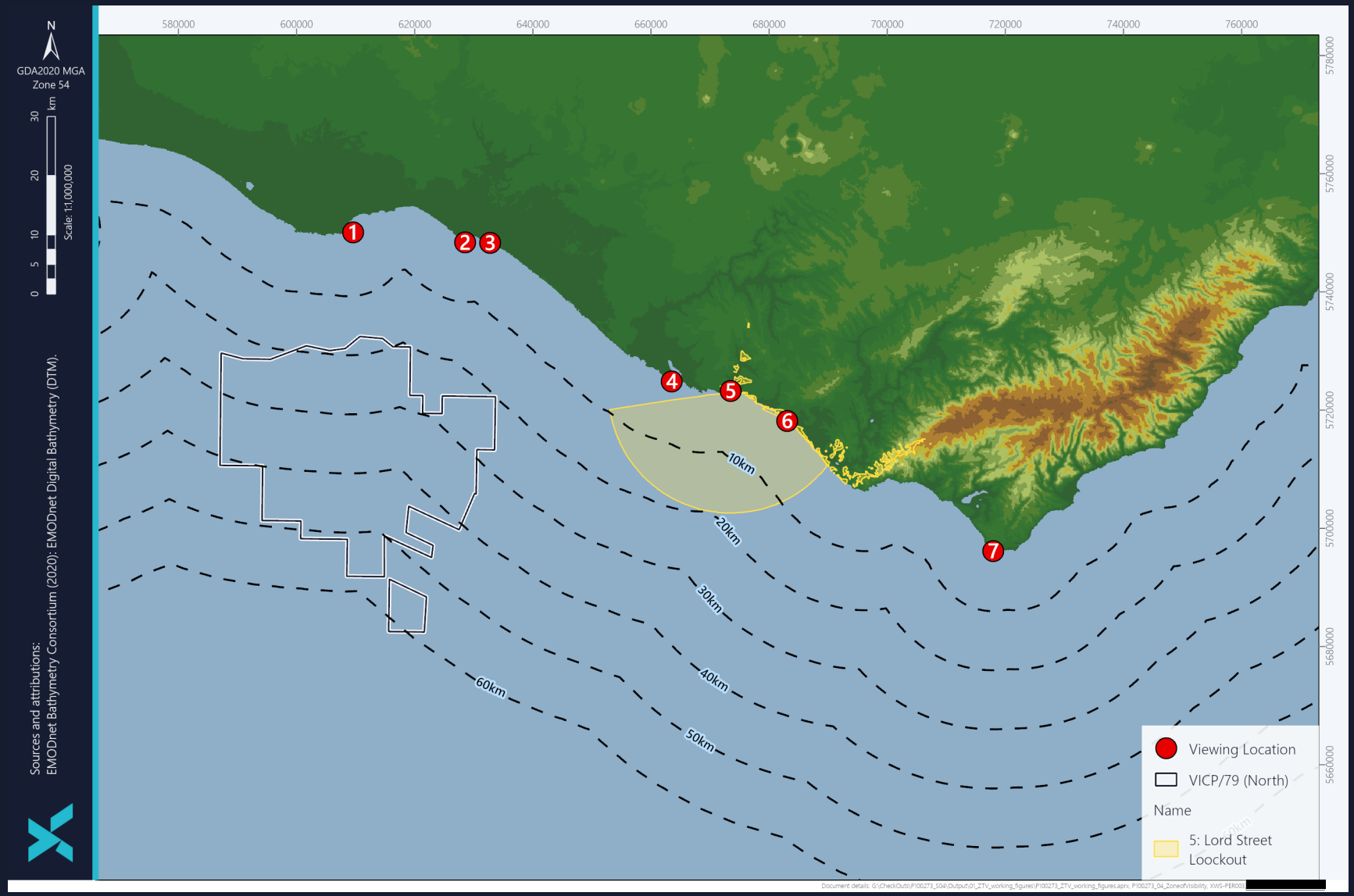
Site 3 viewshed for 40 m high object



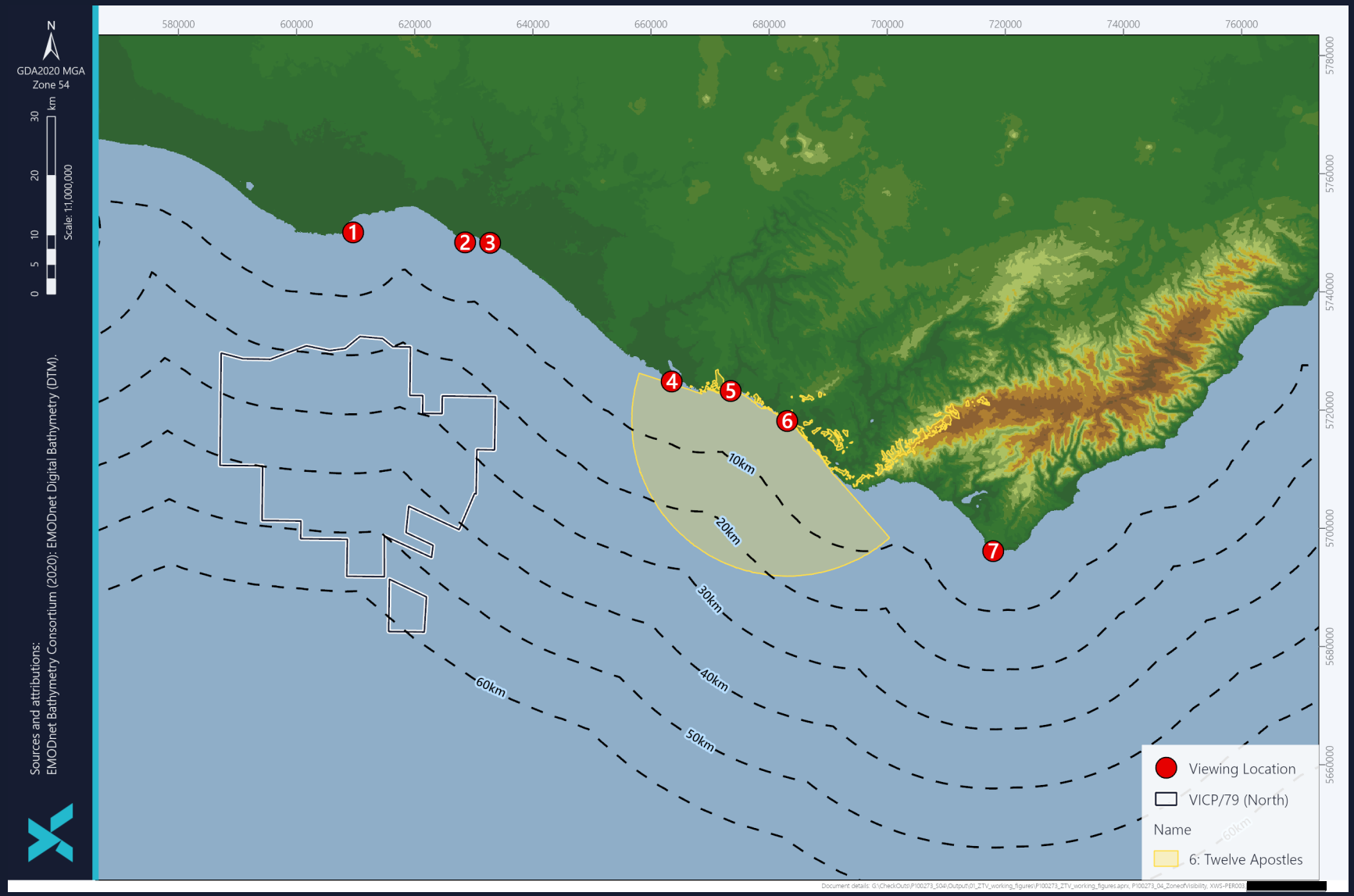
Site 4 viewshed for 40 m high object



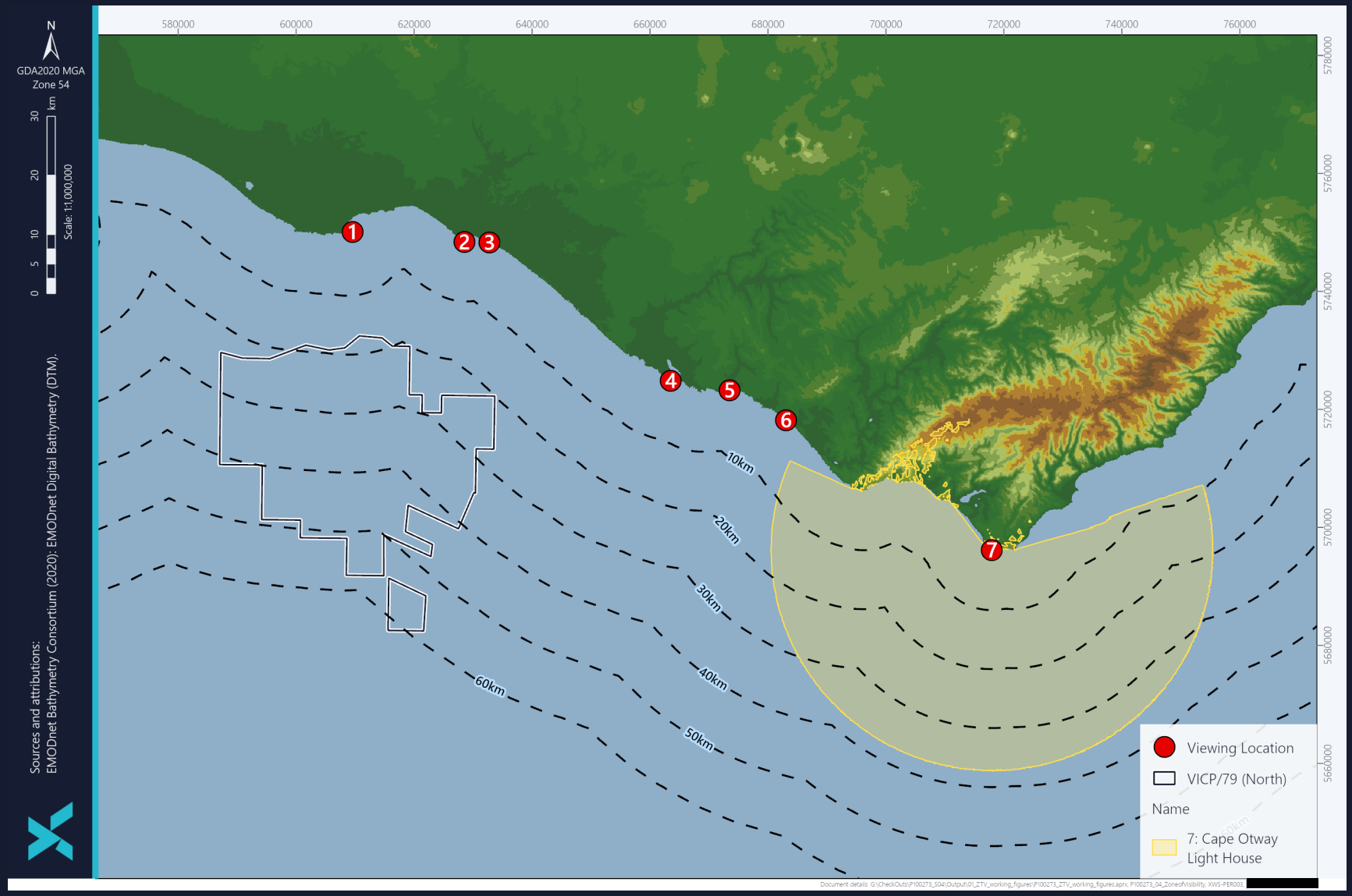
Site 5 viewshed for 40 m high object



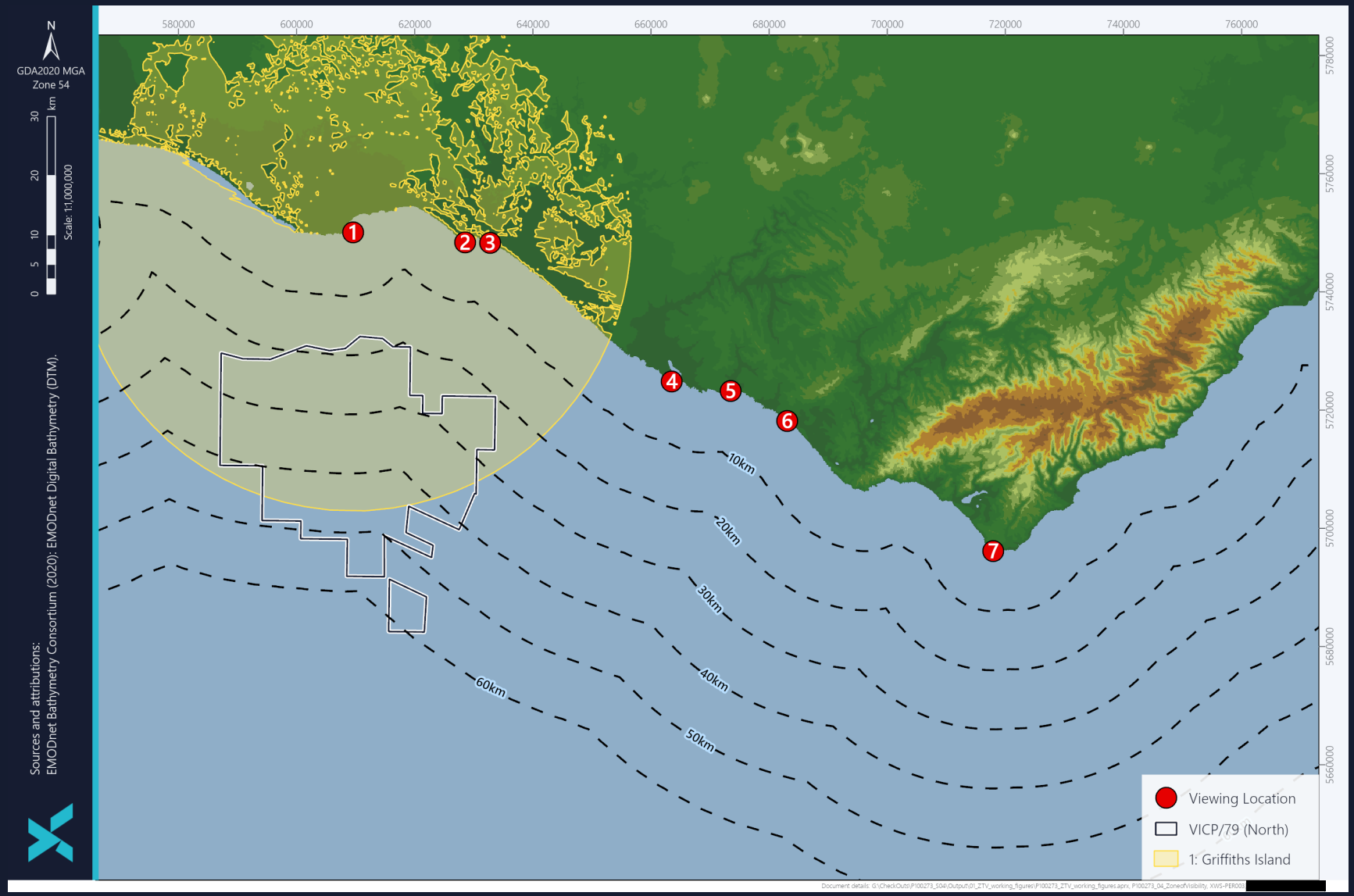
Site 6 viewshed for 40 m high object



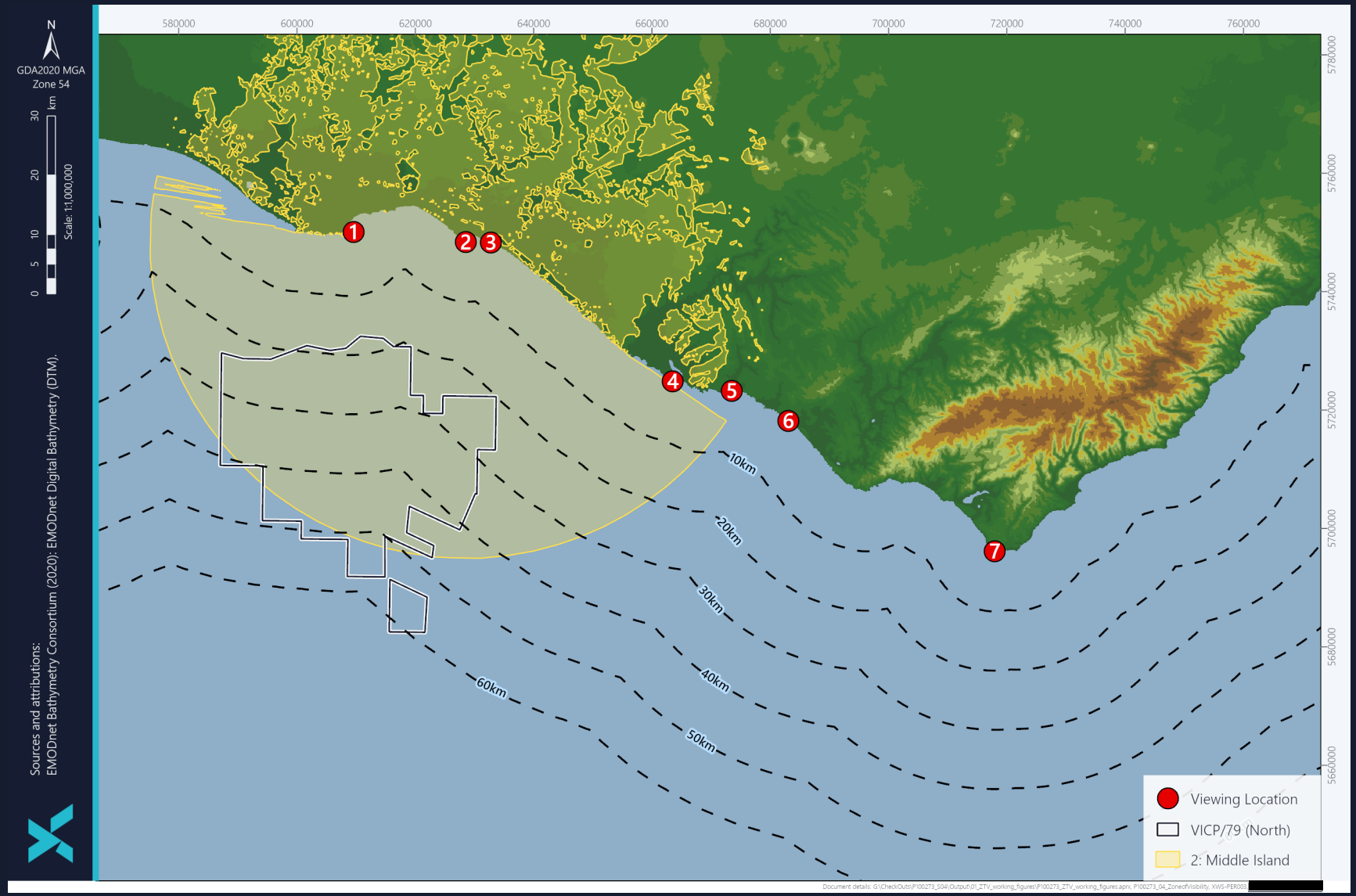
Site 7 viewshed for 40 m high object



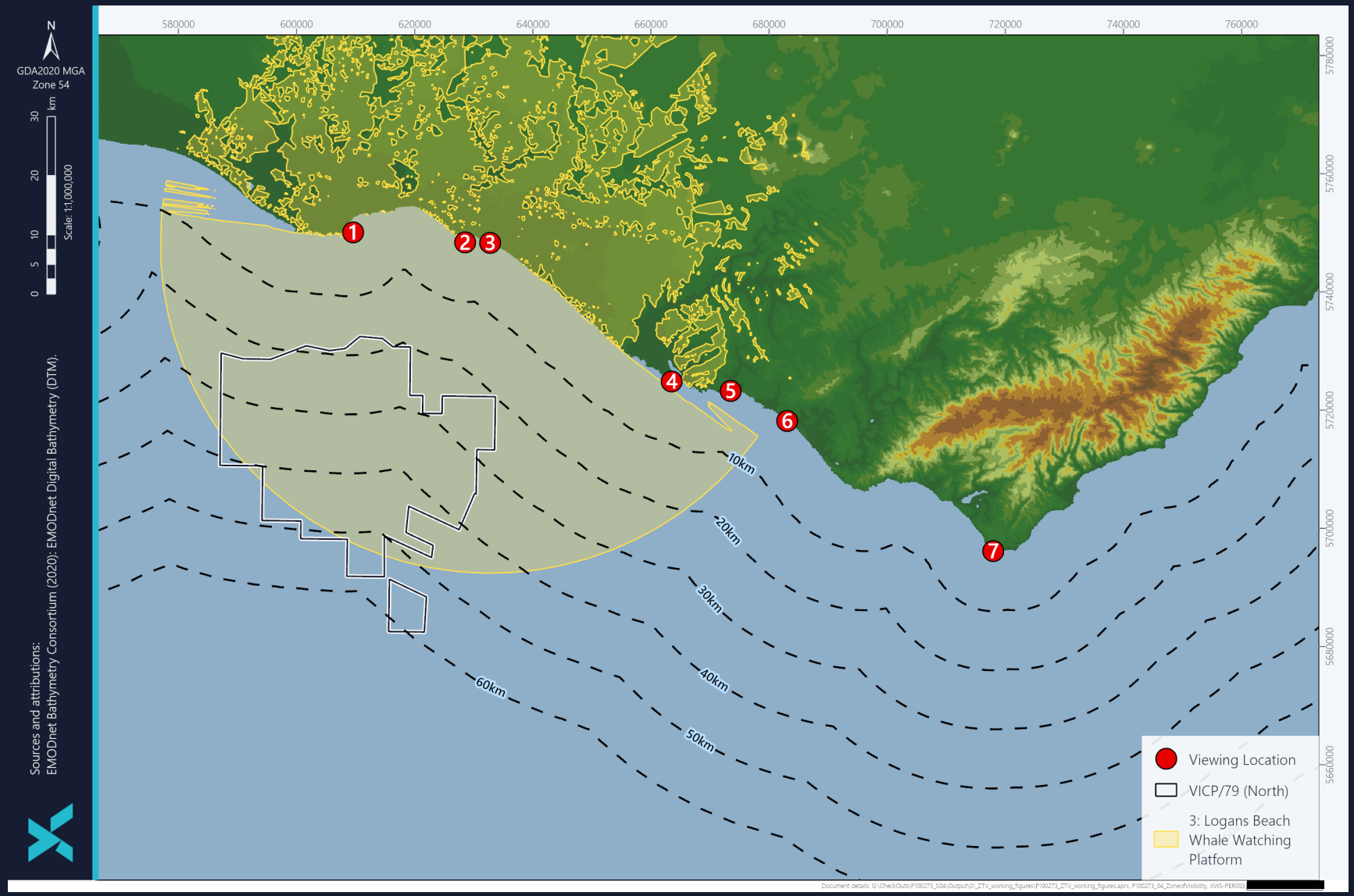
Site 1 viewshed for 120 m high object



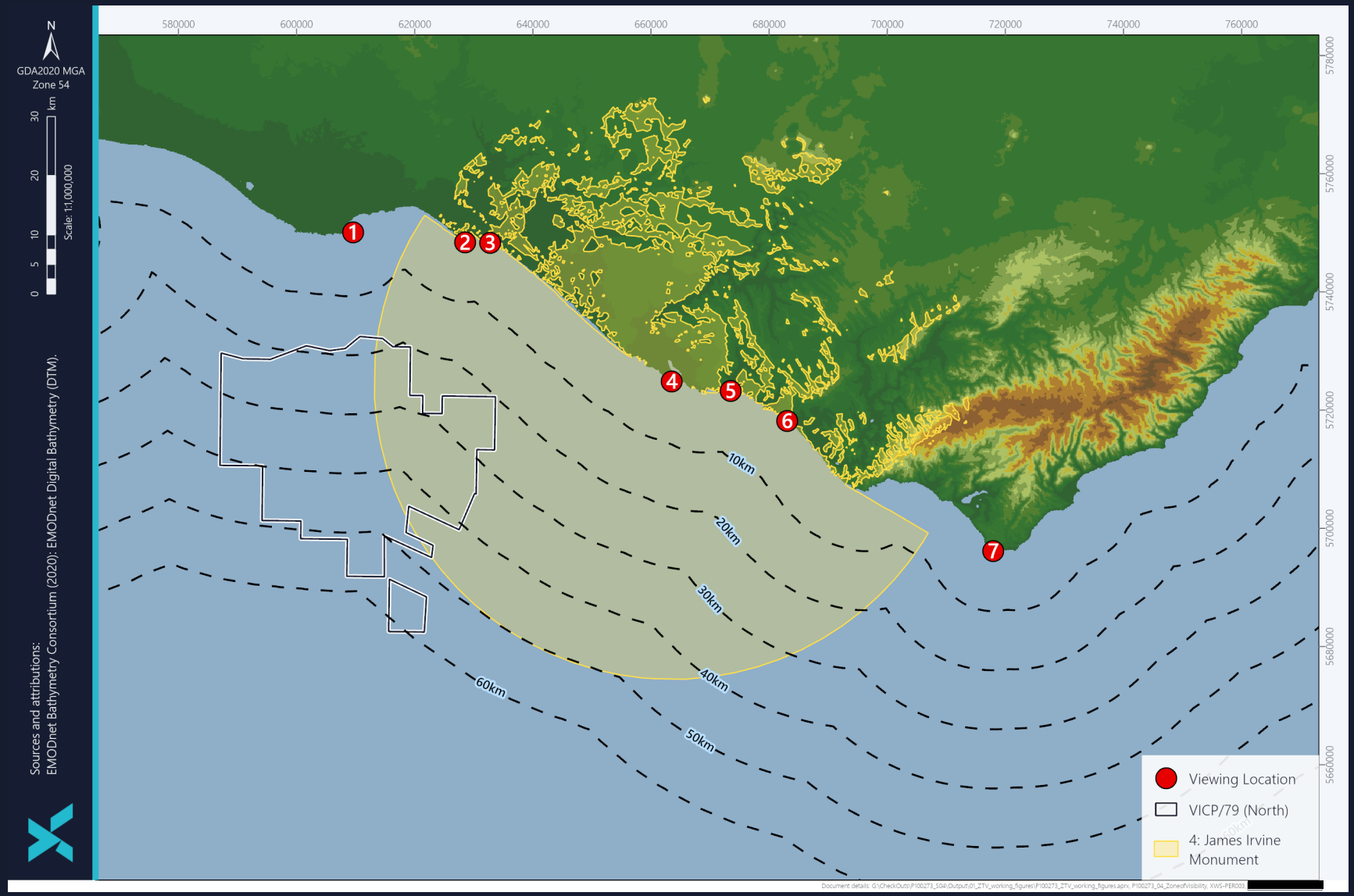
Site 2 viewshed for 120 m high object



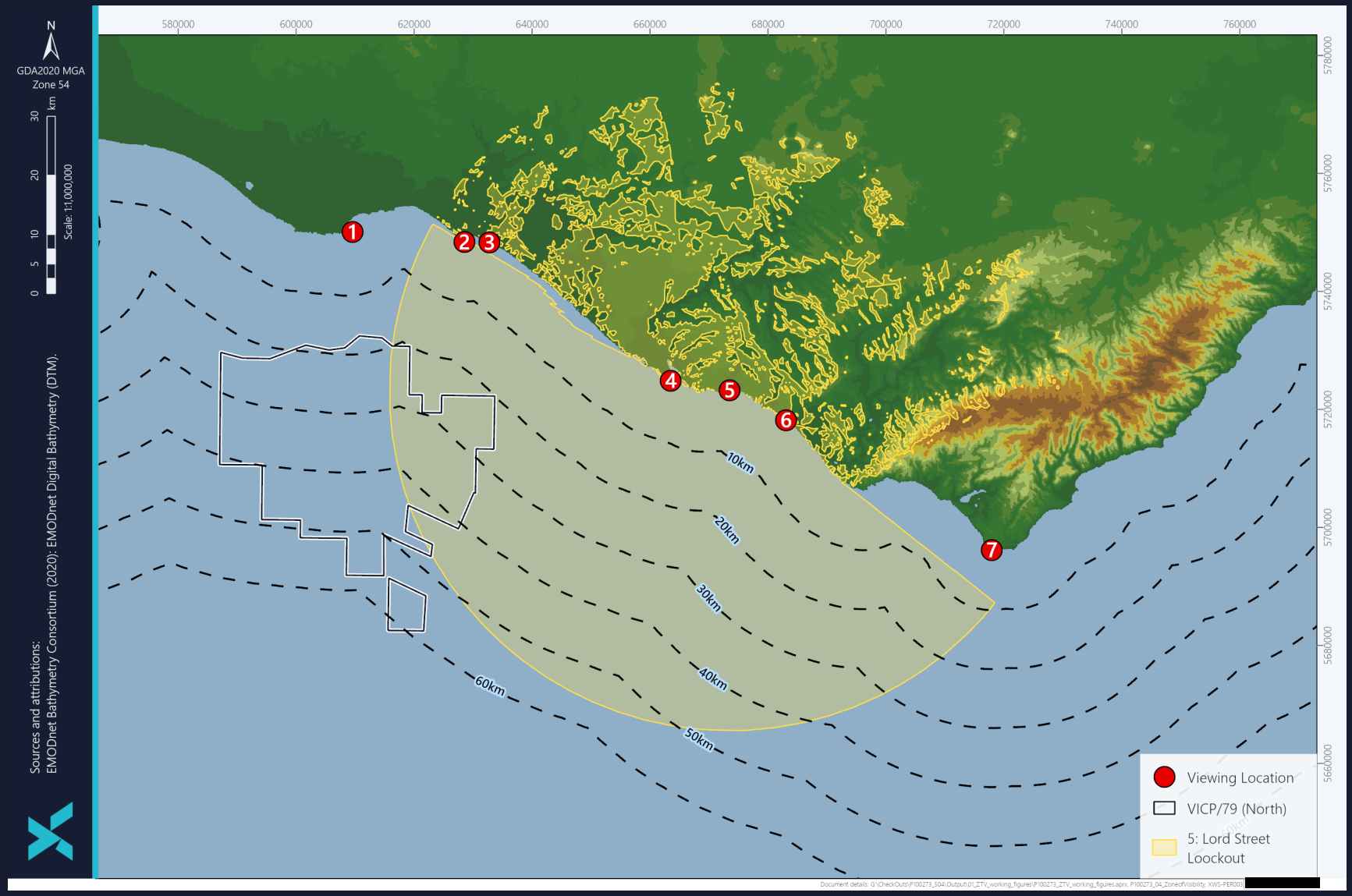
Site 3 viewshed for 120 m high object



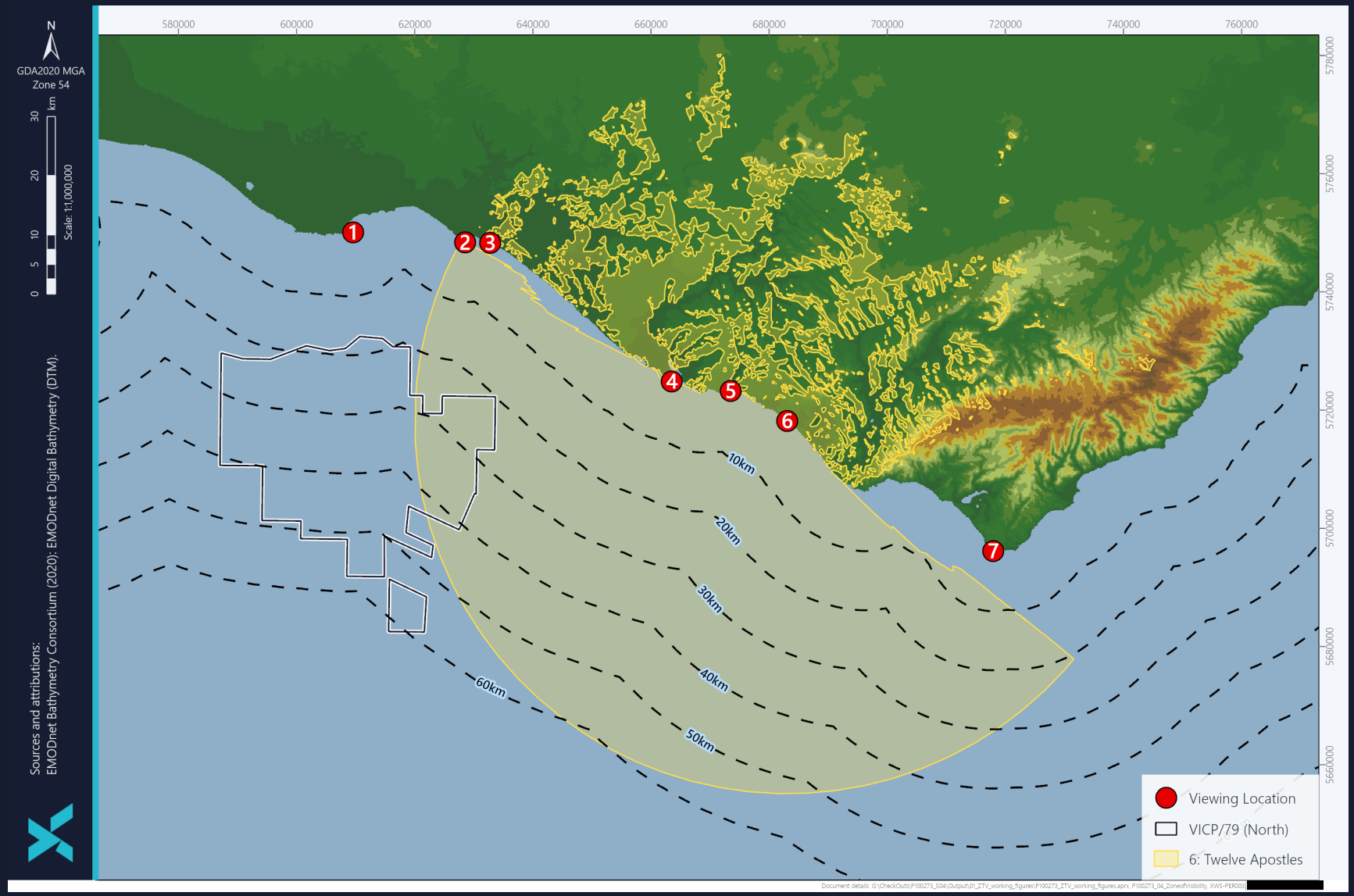
Site 4 viewshed for 120 m high object



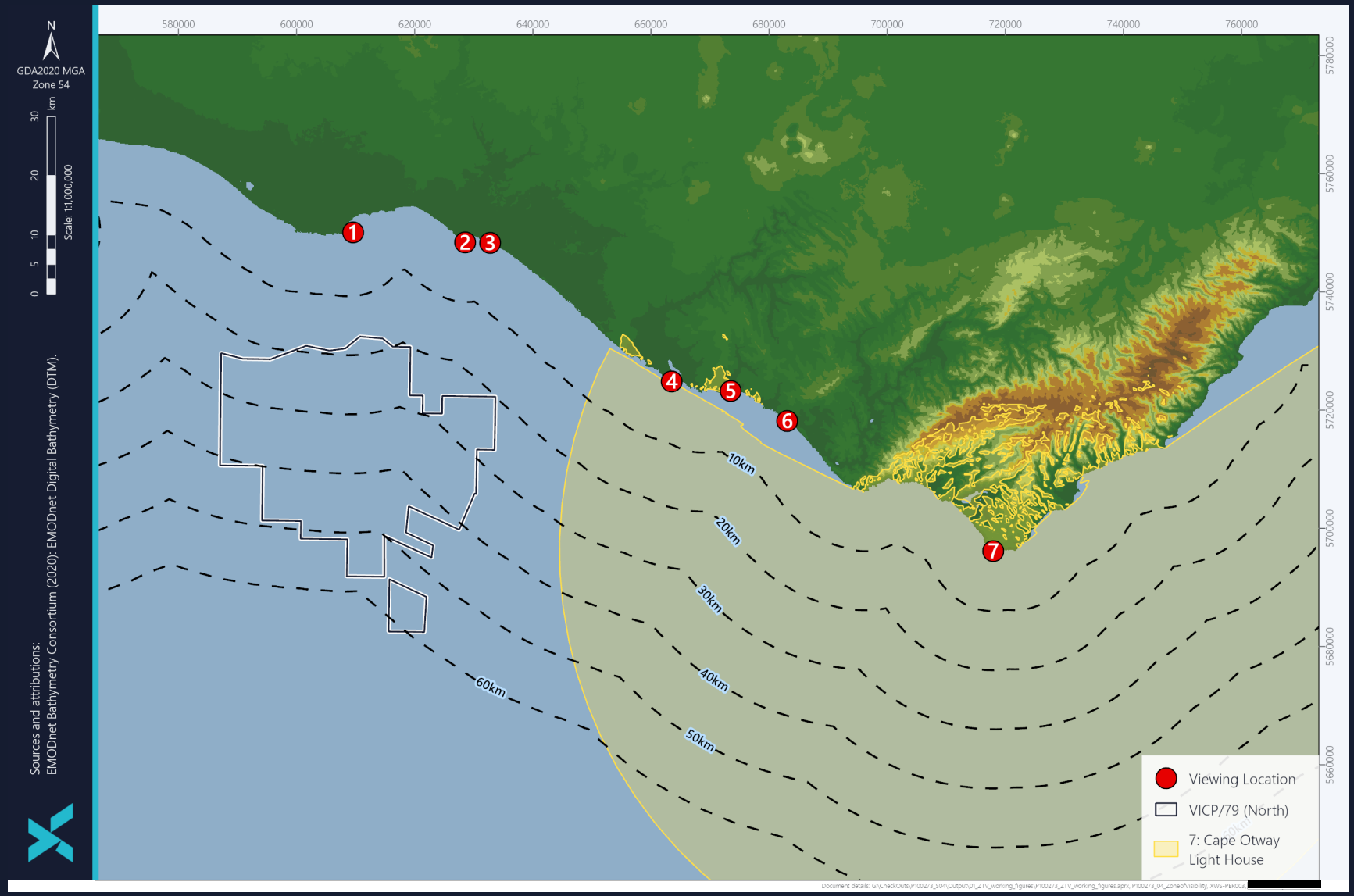
Site 5 viewshed for 120 m high object



Site 6 viewshed for 120 m high object



Site 7 viewshed for 120 m high object

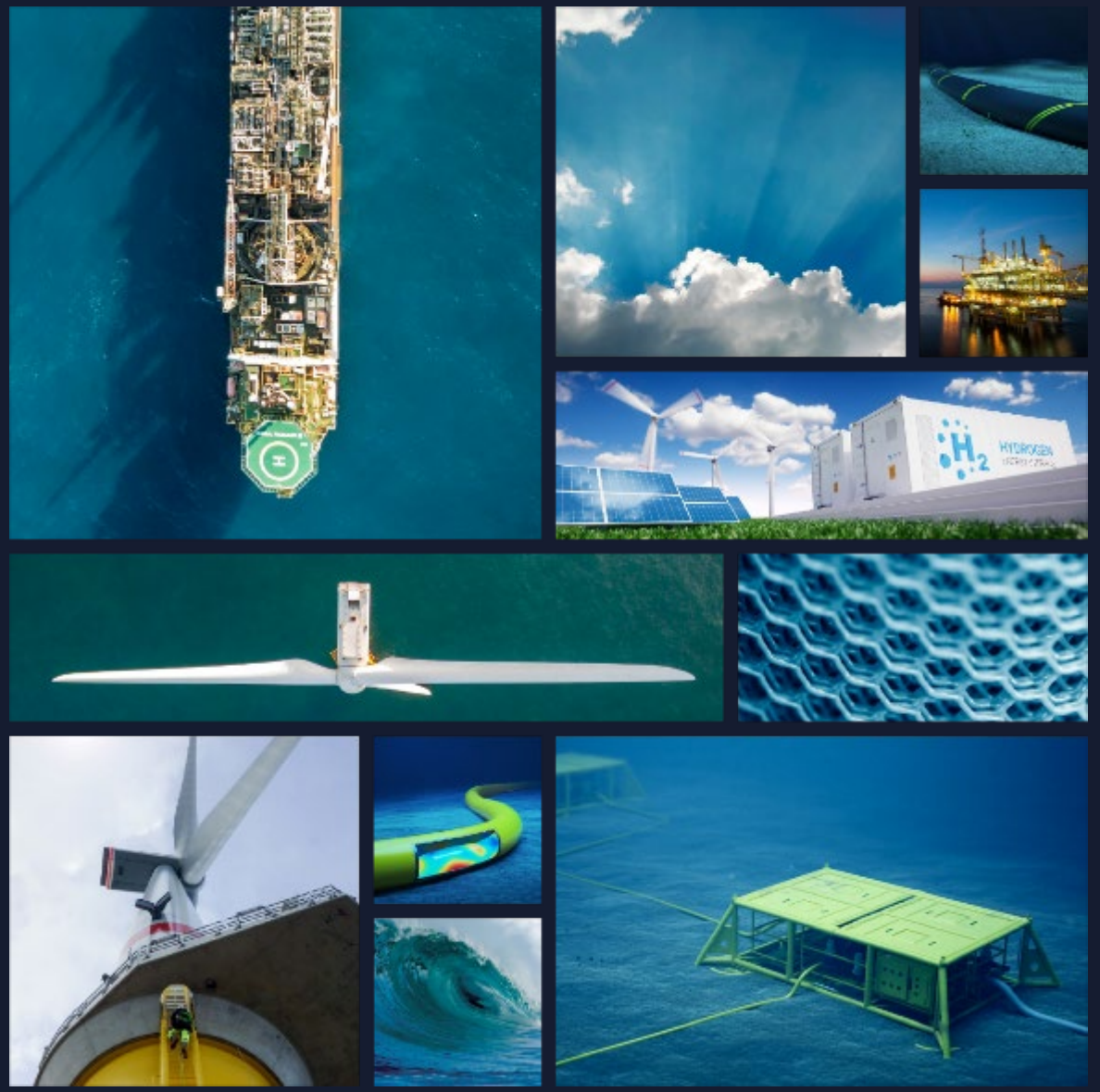


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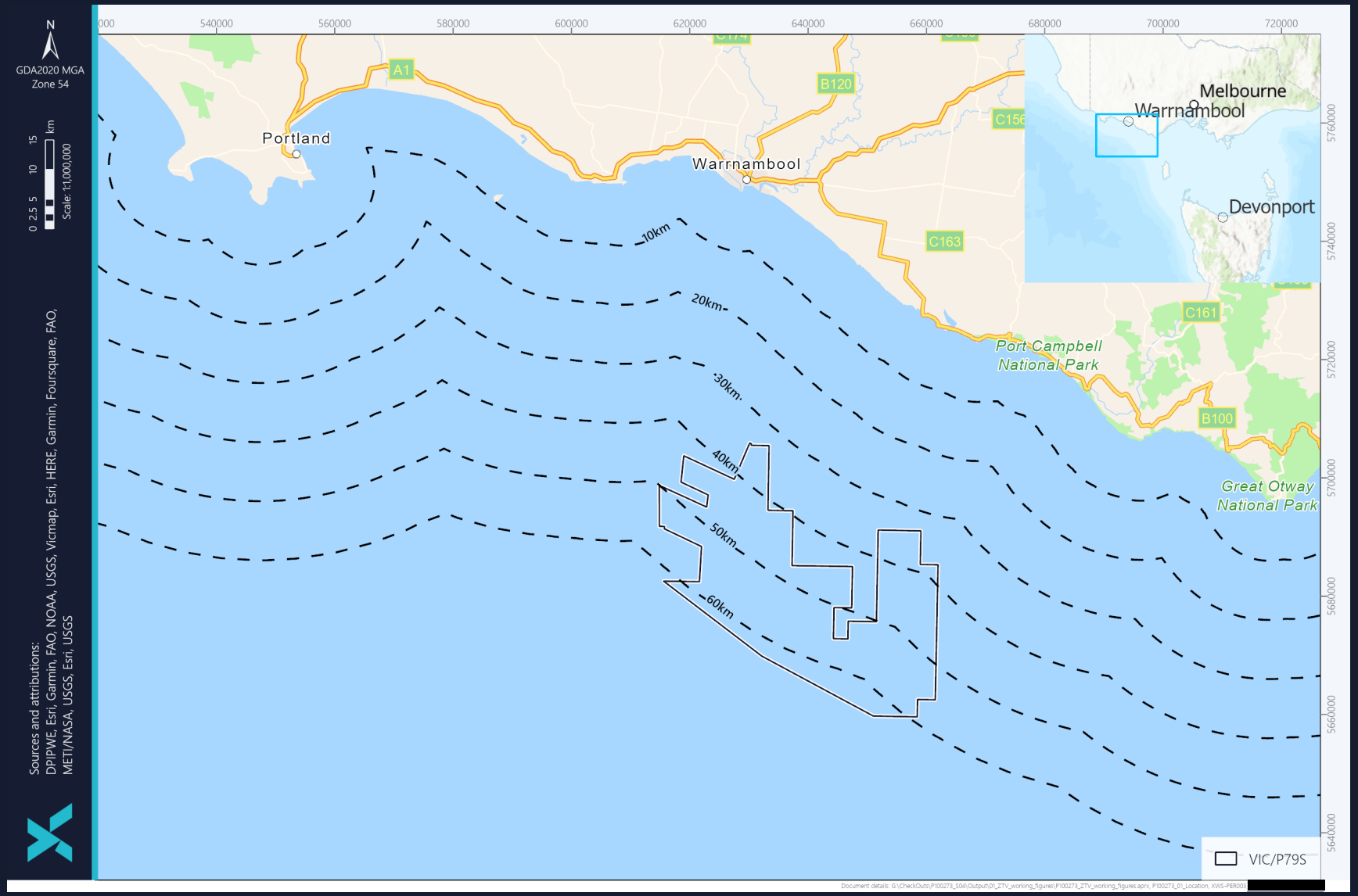
Zone of Theoretical Visibility (SOUTH)

Geospatial visibility analysis of exploration activities within the southern extent of VIC/P79

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Target area VIC/79 (South)

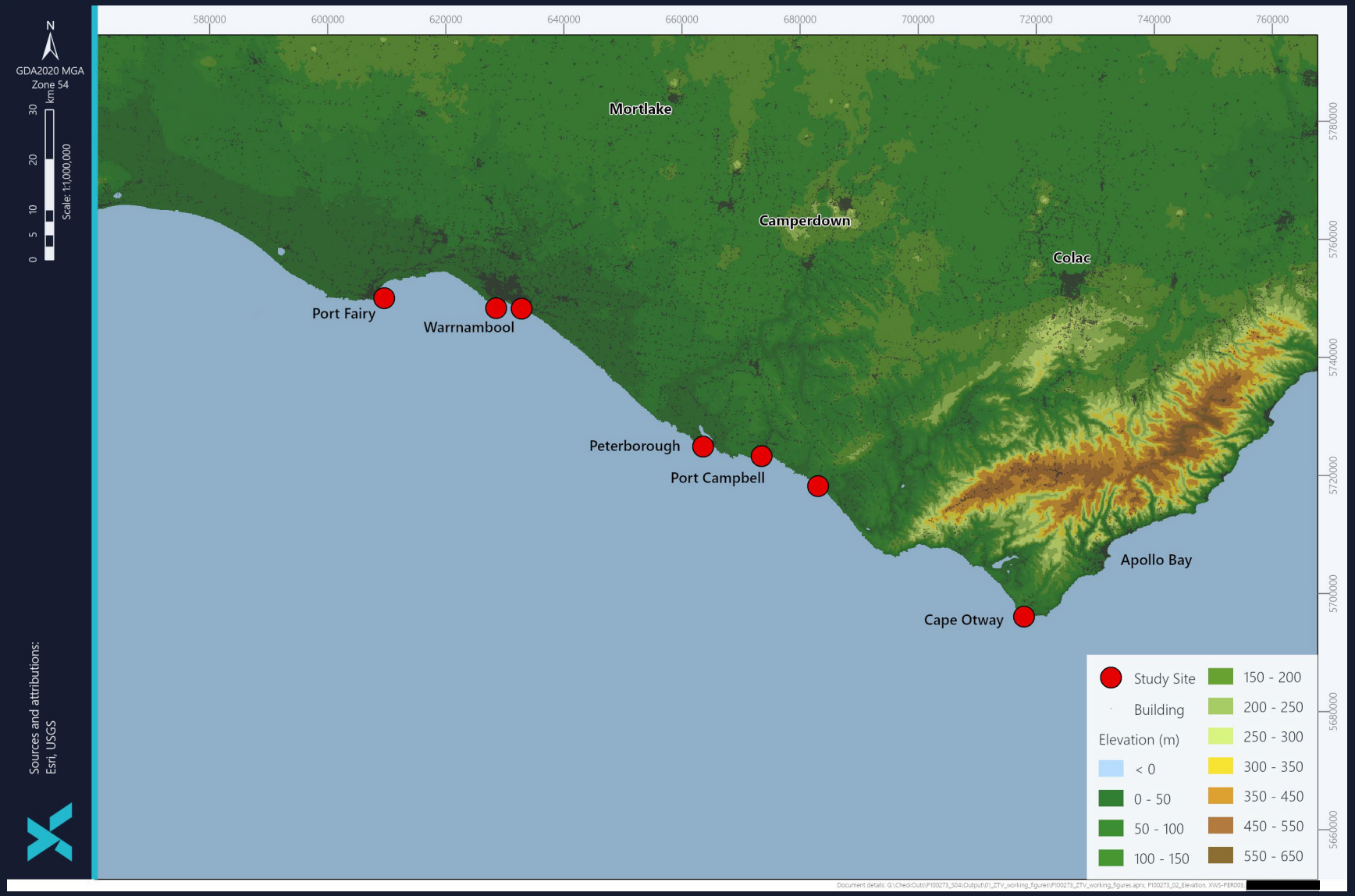


The Otway Basin is located along the Northern coast of Victoria, west of Melbourne.

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The study assess visibility of a platform from selected viewing locations.

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Great Otway National Park to the east has a mountain range pushing elevations up into the 600-650m range.

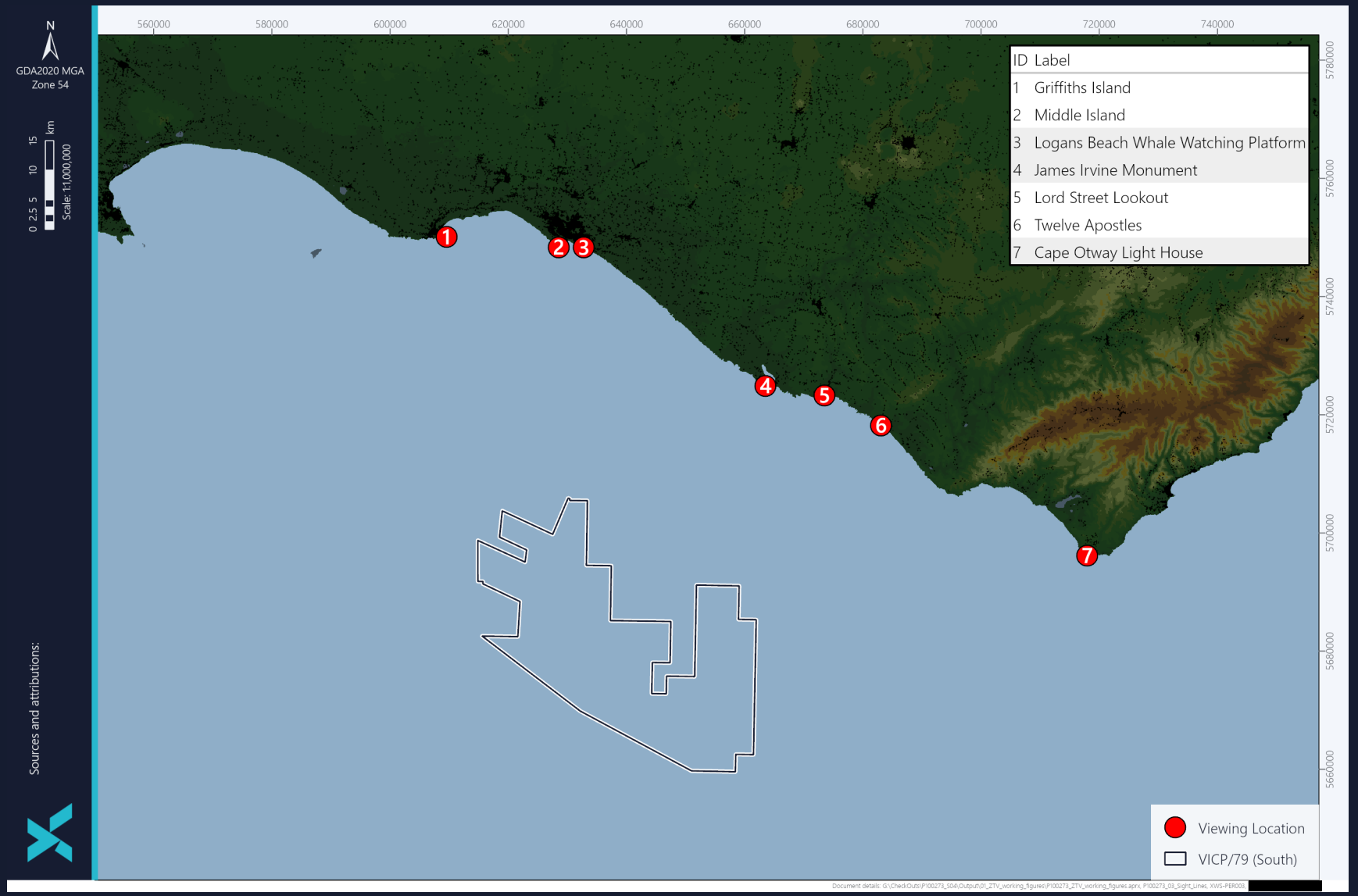
Travelling west from the national park, the terrain drops down from the range to become rolling hills.

Continuing west, the terrain flattens out into lower elevation agricultural plains.

There are several towns and one larger regional hub (Warrnambool).

The coastline's unique geography/geology attracts tourists and therefore, has a series of viewing locations.

Otway Coast Viewing Locations



For this study, seven locations were chosen based on the following factors:

1. Elevation
2. Visual access
3. Tourism amenity
4. Proximity to a point of interest

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A tourism site at Port Fairy.

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A prominent tourist attraction at Warrnambool with an elevated position for site seeing.

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James Irvine Monument
A tourism site at Peterborough, has high visual amenity.

Lord Street Lookout
A tourism site at Port Campbell, has high visual amenity.

Twelve Apostles
A prominent tourist attraction with an elevated position for site seeing.

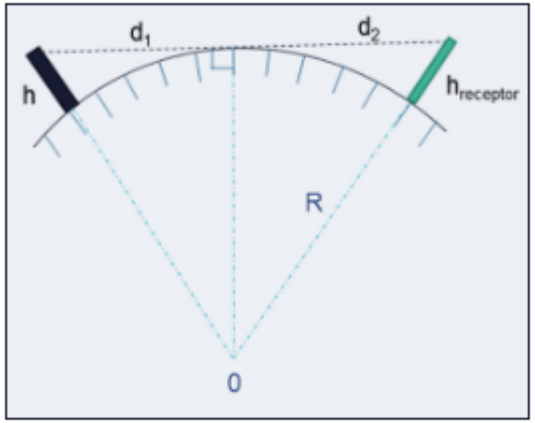
Cape Otway Light House
A tourism site with high visual amenity and elevated position.

Line of Sight Calculation

$$d = \left(2 \blacksquare \frac{4}{3} R h_1 + h_1^2\right)^{0.5} + \left(2 \blacksquare \frac{4}{3} R h_2 + h_2^2\right)^{0.5}$$

Where

- h_1 = height of object
- h_2 = height of receptor
- R = radius of earth
- d = total line of sight $(d_1 + d_2)$



Line of sight and Viewshed analyses are conducted using the standard calculation above.

The calculation determines a viewers (h) visible horizon limit (d_1). And if applicable, the observable distance of an object ($h_{receptor}$) beyond the horizon ($d_1 + d_2$).

As elevation/height of an observer increases, so does the distance to the horizon. Likewise, the viewable distance of an object beyond the horizon increases with it's elevation/height.

This assumes no adverse atmospheric conditions or obstructed field of view.

Calculated Viewshed

Label	Name	Elevation (m)	Horizon (km)	40 m Deck (km)	120 m Derrick (km)
1	Griffiths Island	3	8	30.6	47.1
2	Middle Island	14	14.3	36.9	53.4
3	Logans Beach Whale Watching Platform	20	16.7	39.3	55.8
4	James Irvine Monument	8	11.3	33.9	50.4
5	Lord Street Lookout	25	18.5	41.1	57.7
6	Twelve Apostles	43	23.9	46.5	63
7	Cape Otway Light House	91	34.4	57	73.5

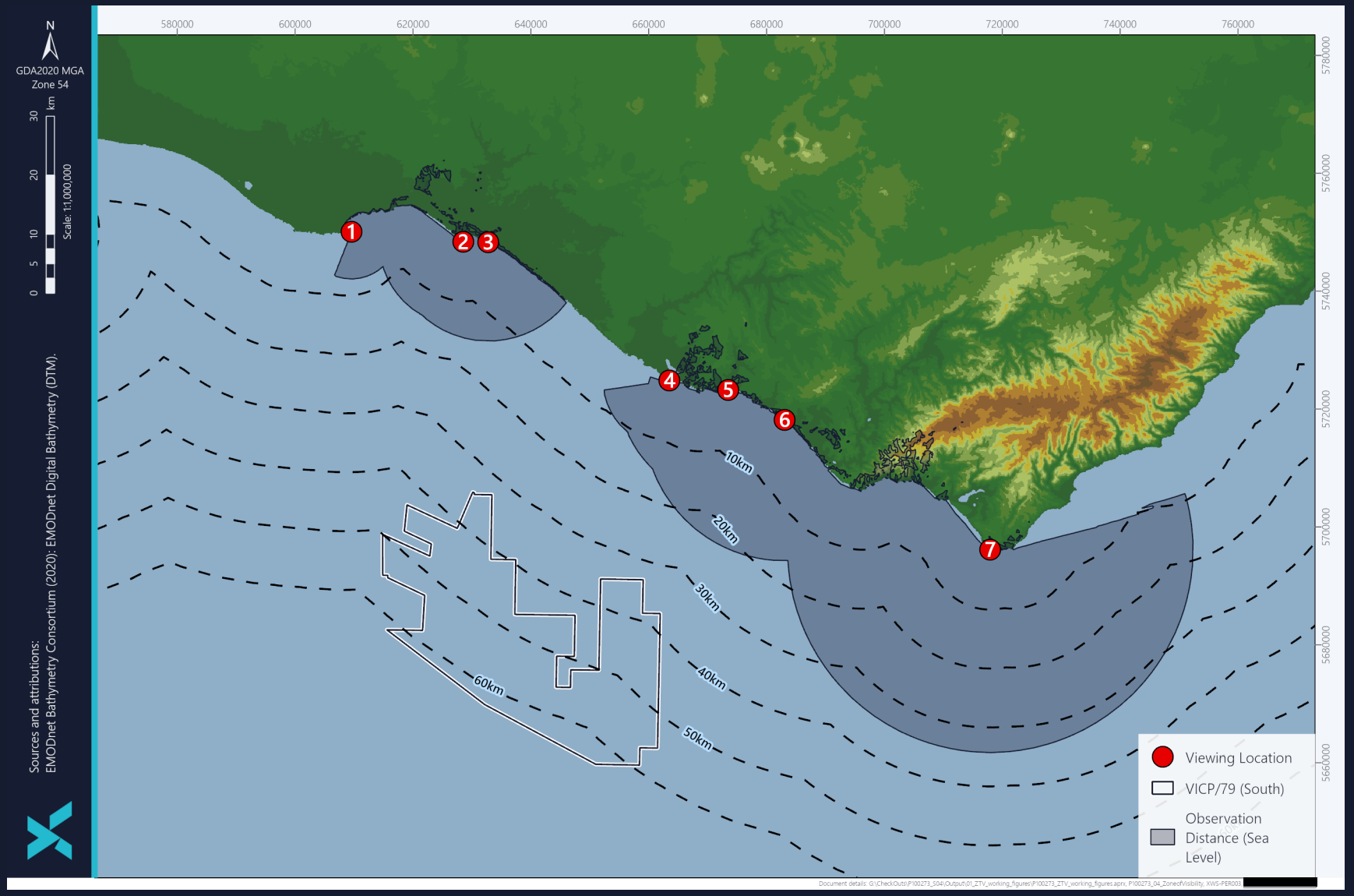
These values represent the inputs (Elevation) and outputs (Horizon or Platform) of the calculated visibilities.

A 2 m tall observer at Griffiths Island (approximately 5 m above sea level) will see 34.4 km to the horizon. A 120 m high object will appear above the horizon to the observer up to 73.5 km away.

A platform height was not available, hence a generic worst case scenario height of 120 m has been used in this study.

Each location's elevation has had 2 m added as the elevation, to create the observers height.

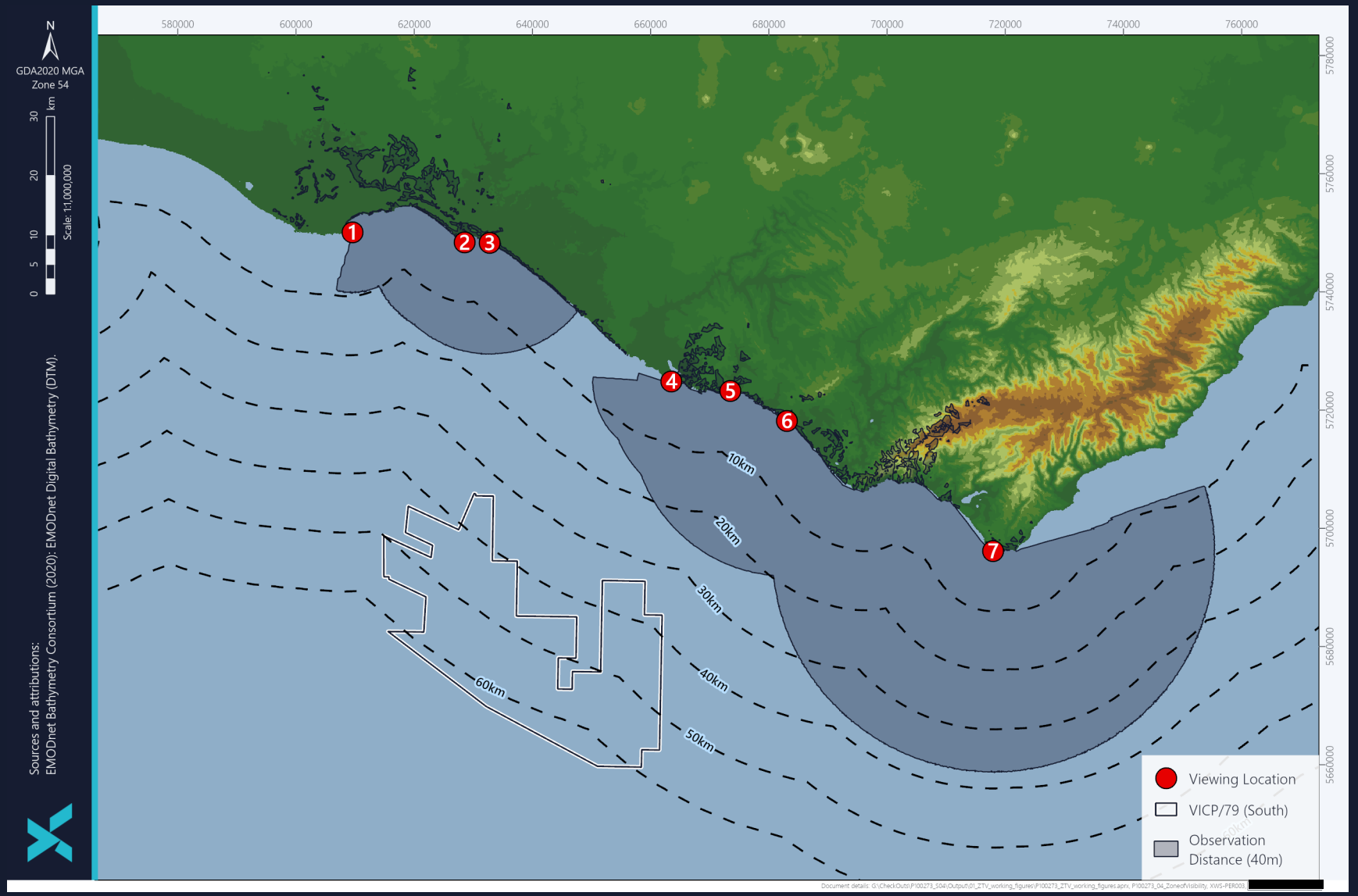
Otway Basin Viewshed for Sea Level Horizon



The fans of visibility (viewshed) represent the maximum viewable area from each location. As is demonstrated, the areas are dissected by local obstructions (islands and other landforms).

The entire permit area (at sea level) is not visible from any study location.

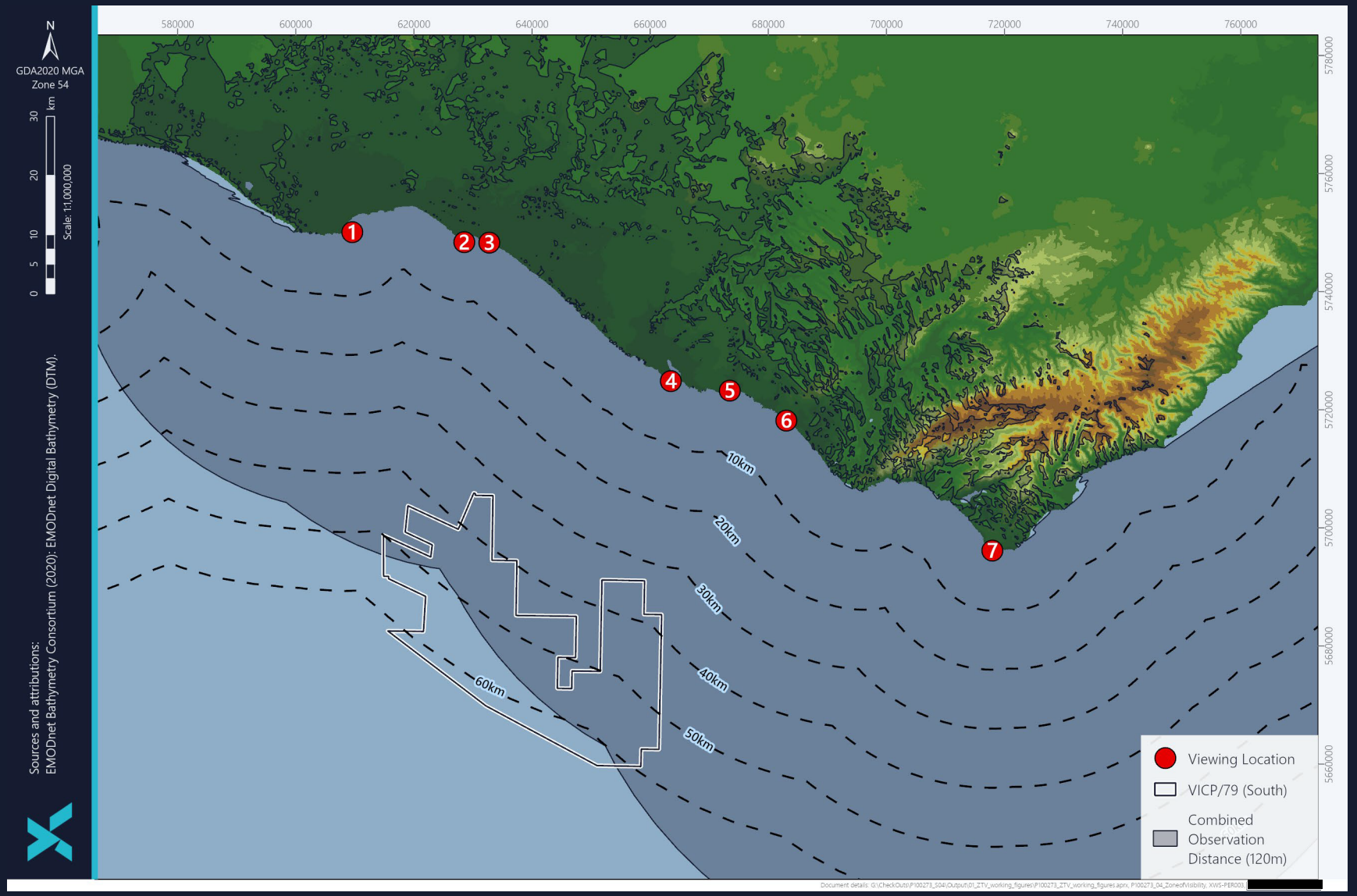
Otway Basin Viewshed for 40 metre high object



The fans of visibility represent the maximum viewable area of a 40 m high deck from each location.

The entire permit area can host a 40 m high deck without visual impact.

Otway Basin Viewshed for 120 m high object

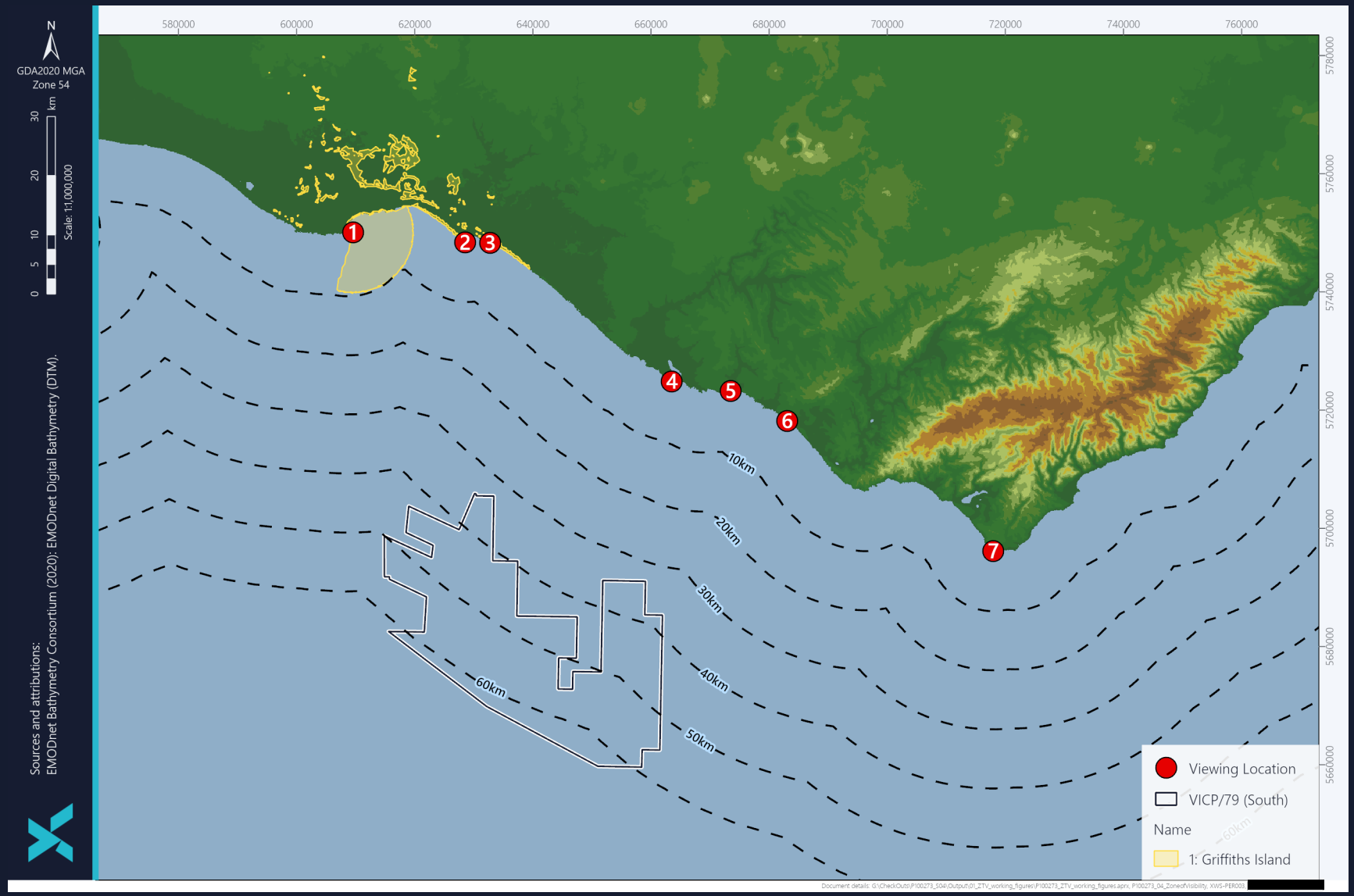


The fans of visibility represent the maximum viewable area of a 120 m high platform from each location.

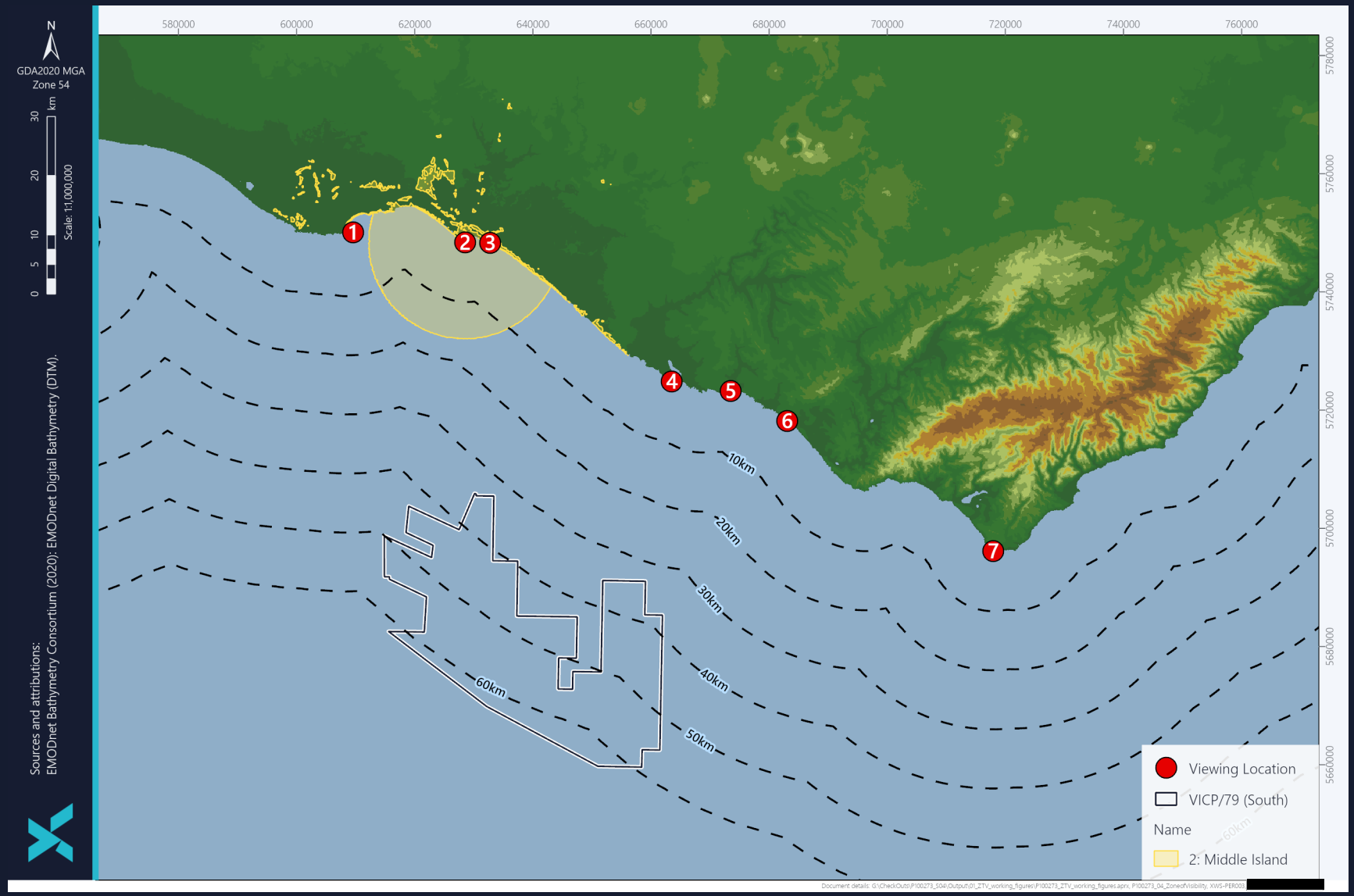
A 120 m high derrick will be visible from the some viewing sites (see individual viewshed images).

Approximately half of the permit area can host a 120 m high derrick that is not visible from at least one of the viewing sites.

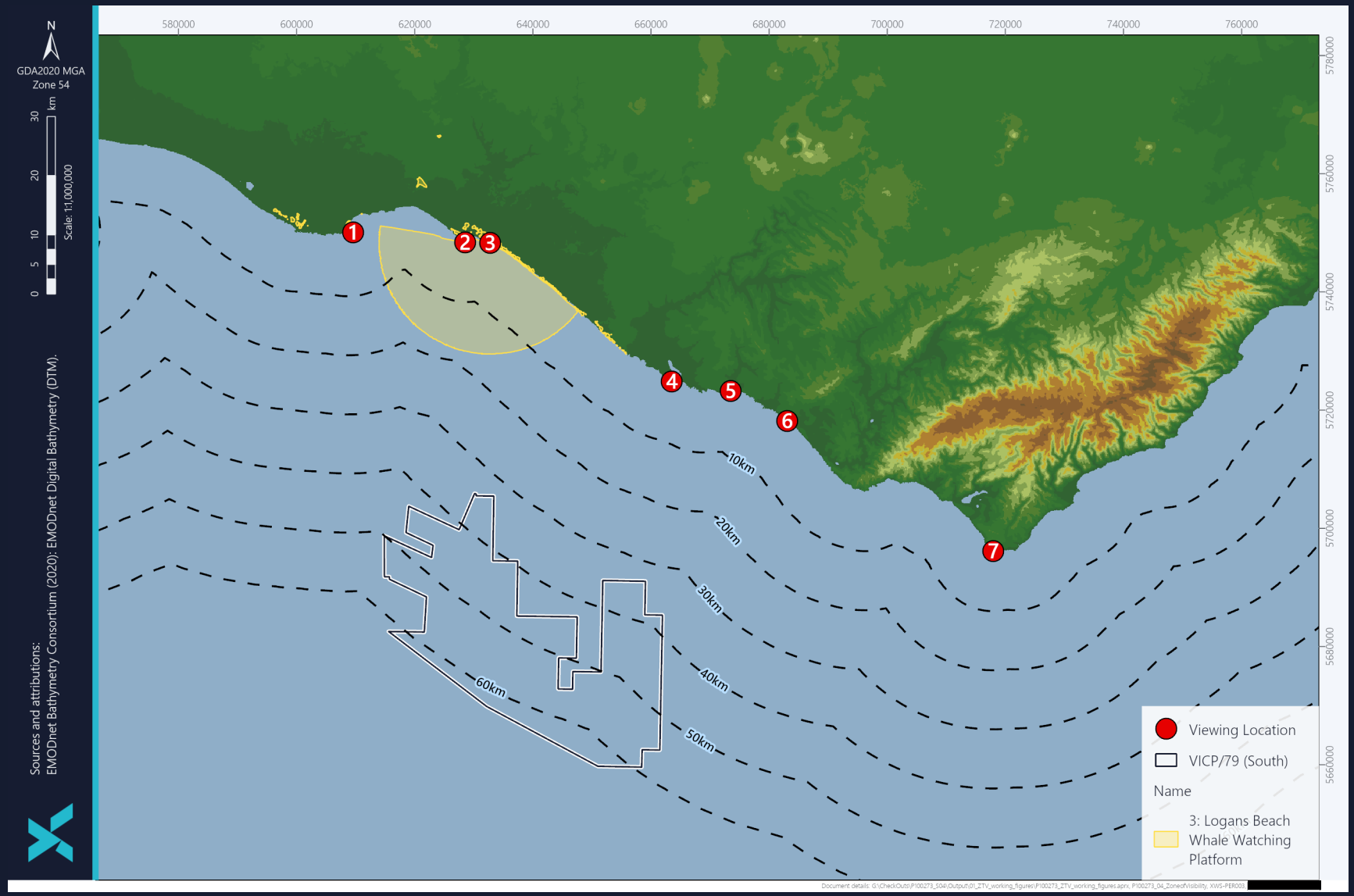
Site 1 viewshed for 40 m high object



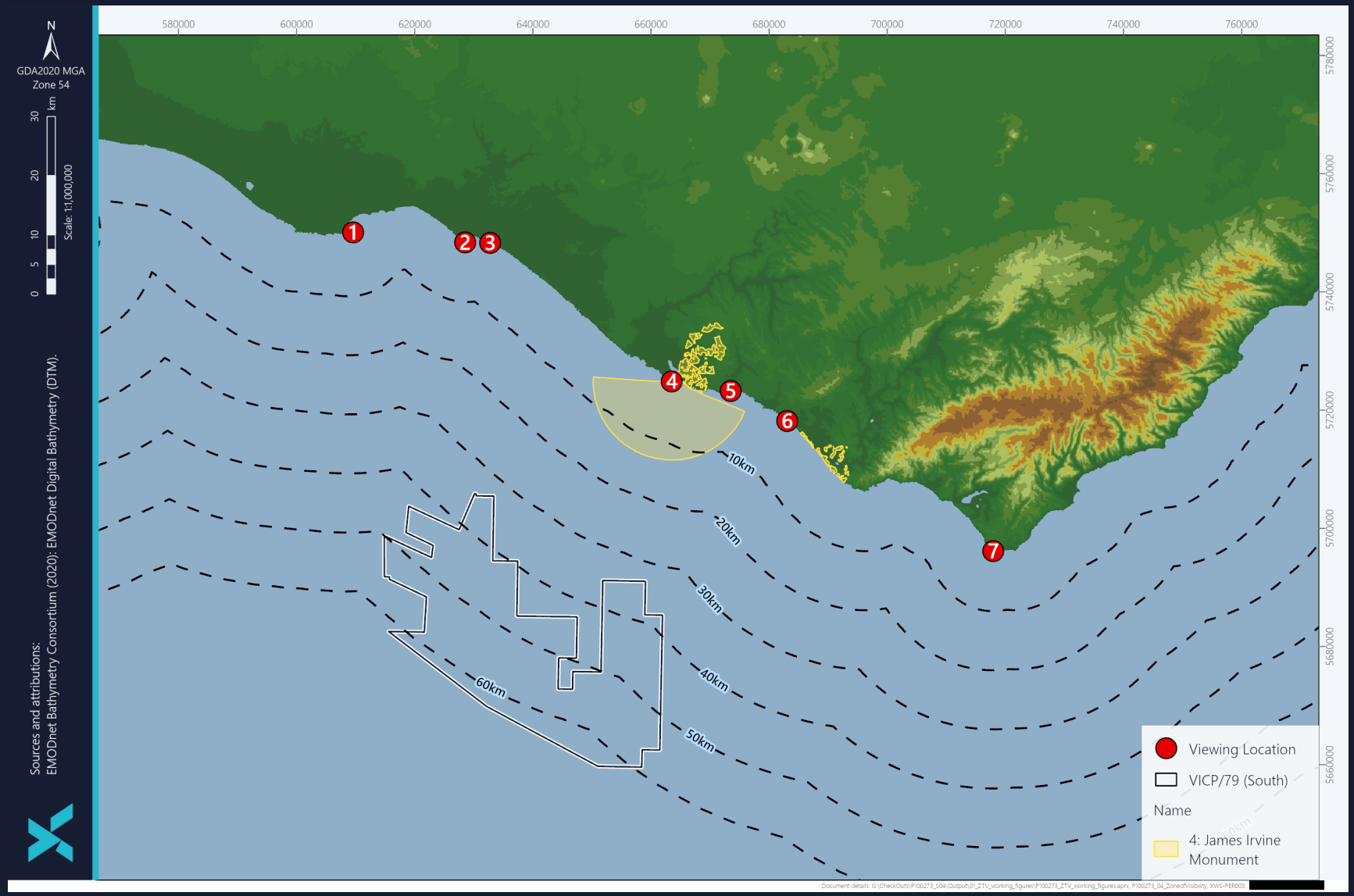
Site 2 viewshed for 40 m high object



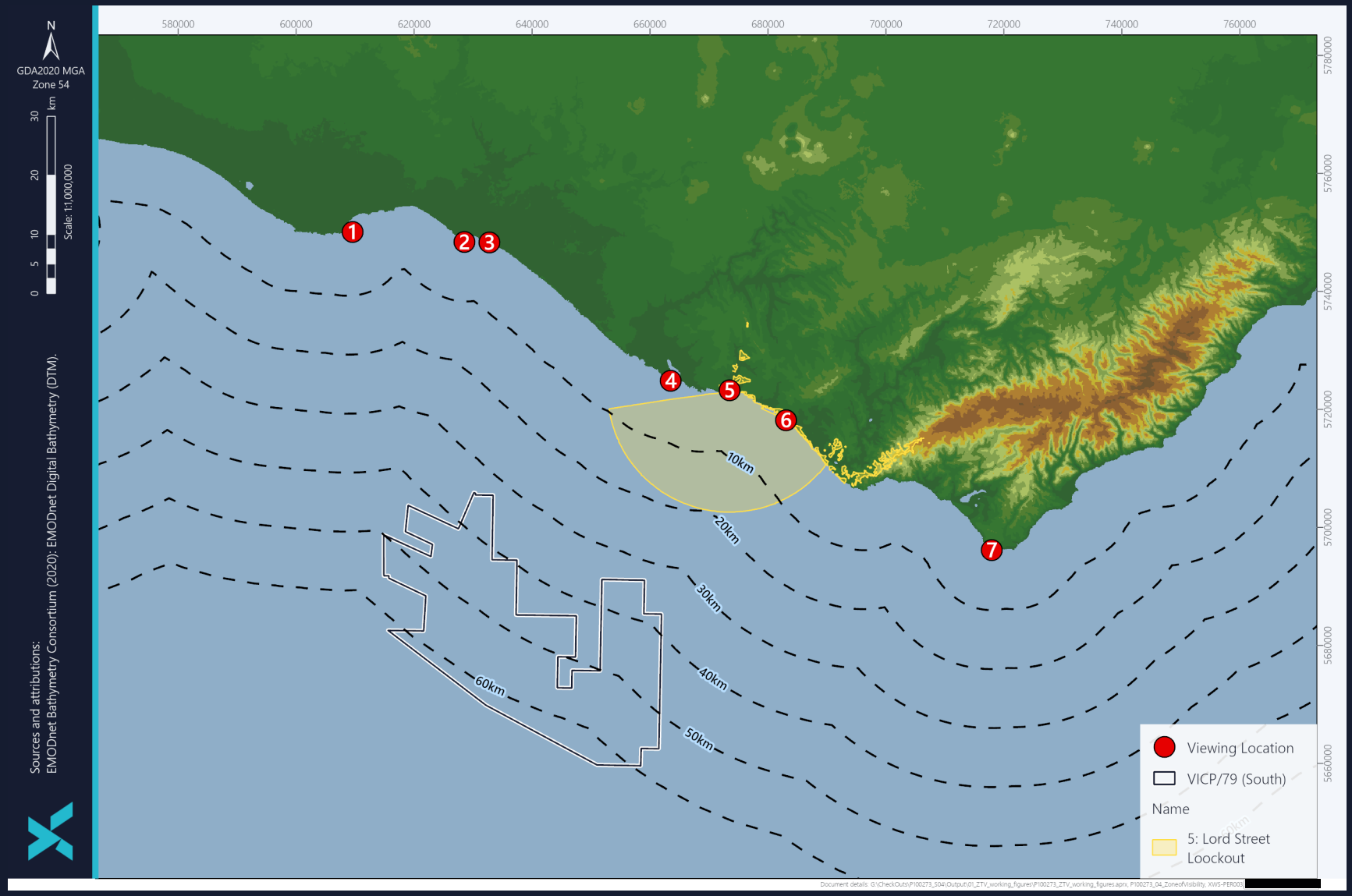
Site 3 viewshed for 40 m high object



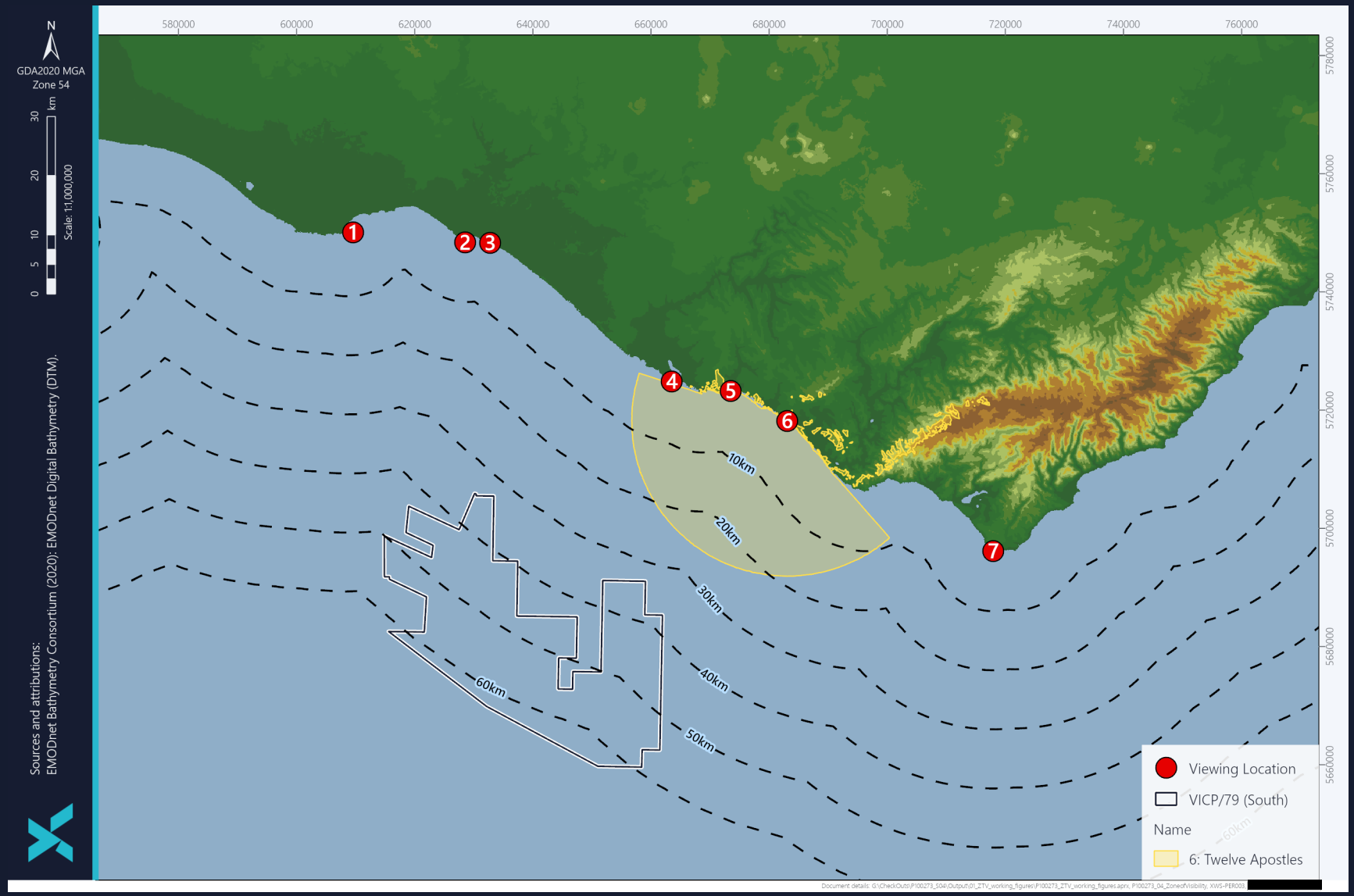
Site 4 viewshed for 40 m high object



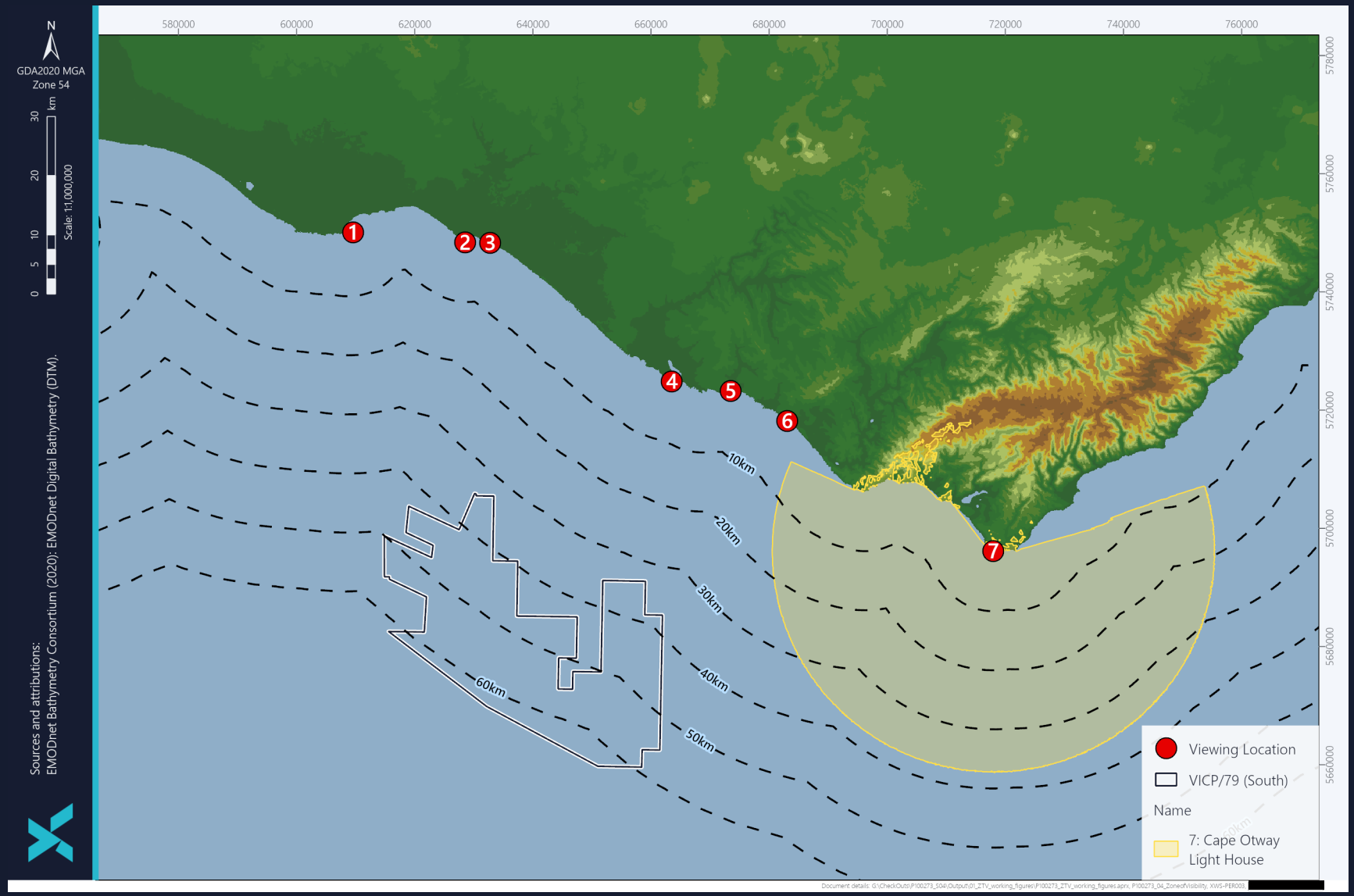
Site 5 viewshed for 40 m high object



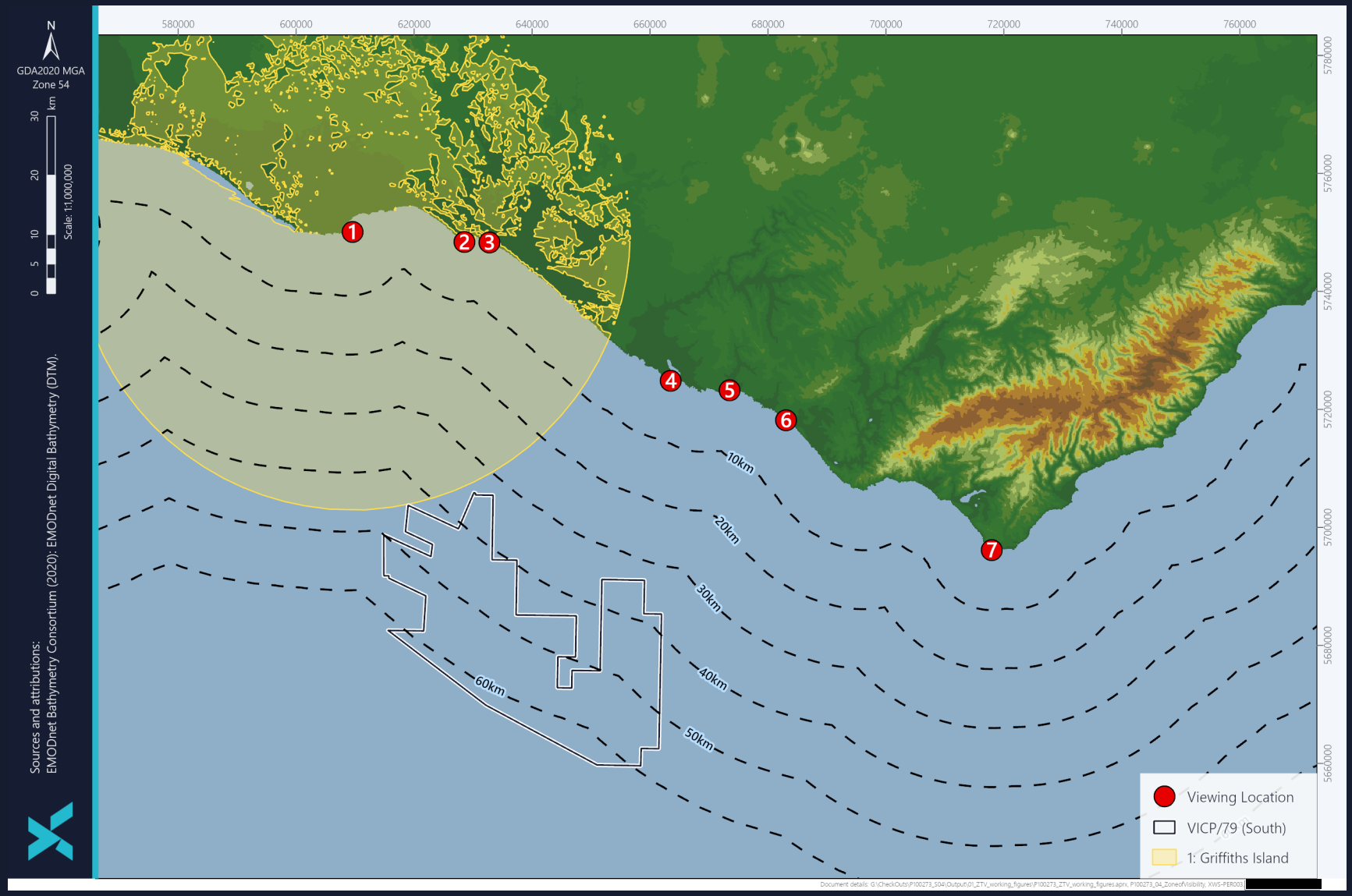
Site 6 viewshed for 40 m high object



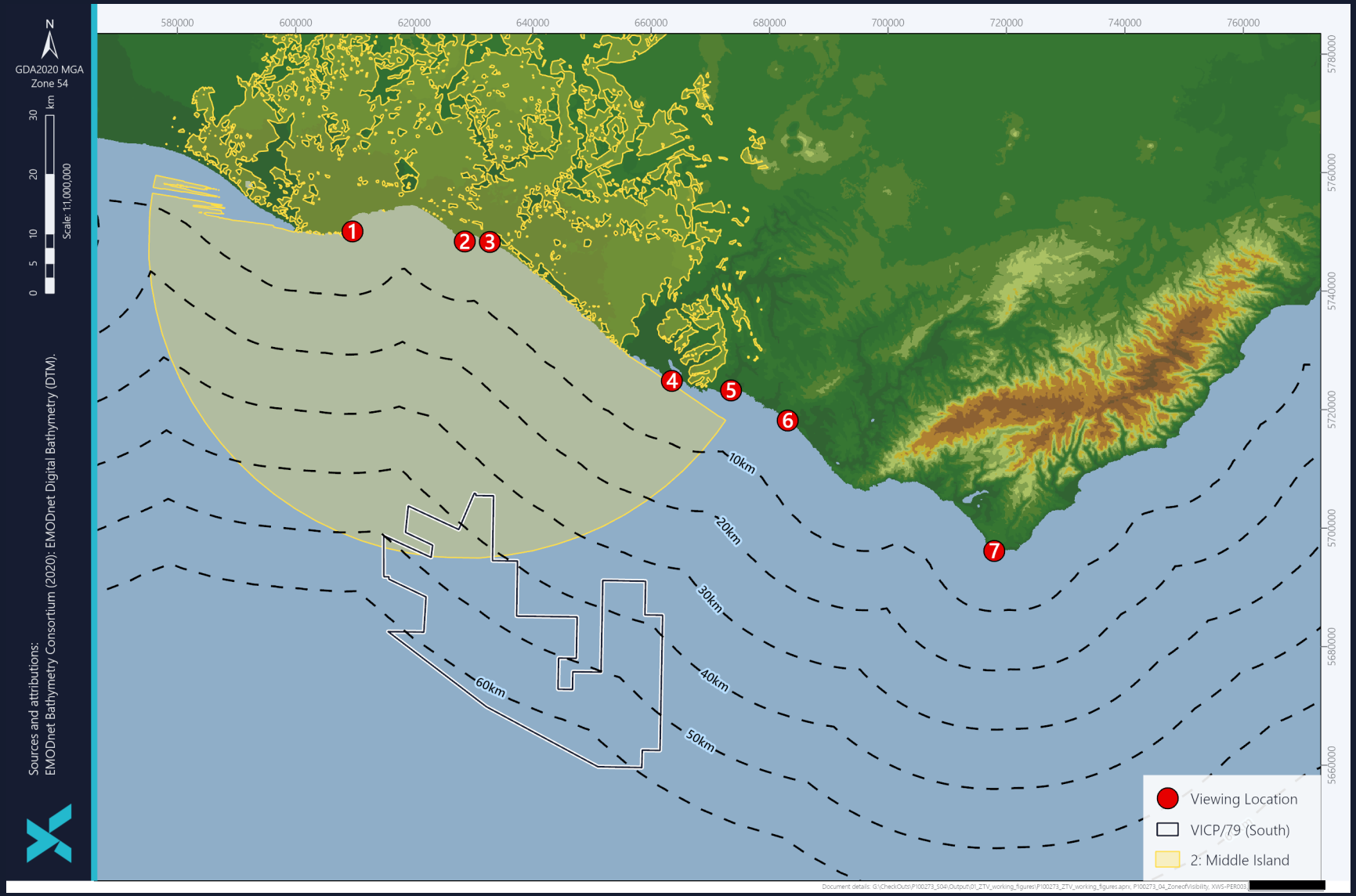
Site 7 viewshed for 40 m high object



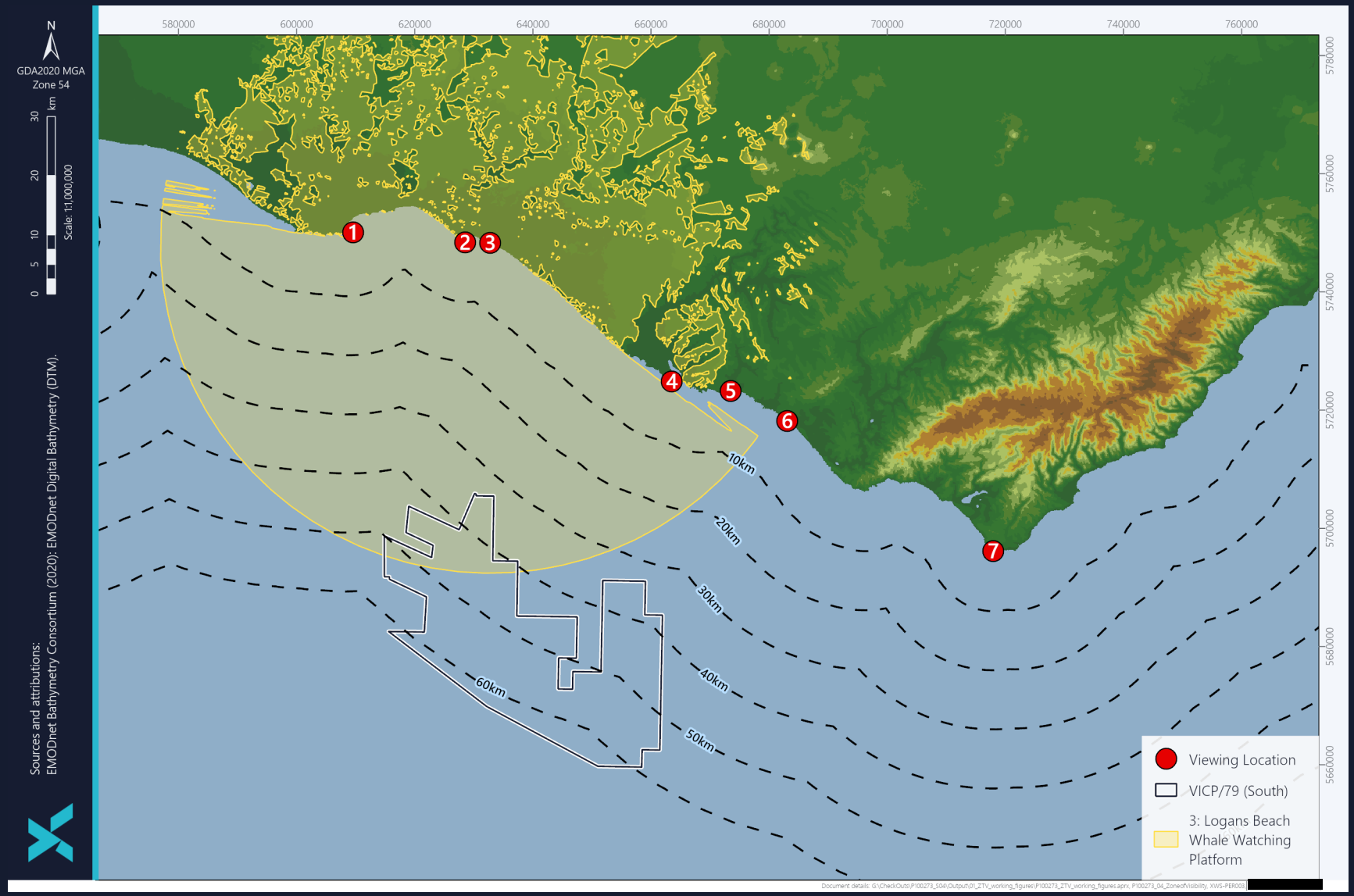
Site 1 viewshed for 120 m high object



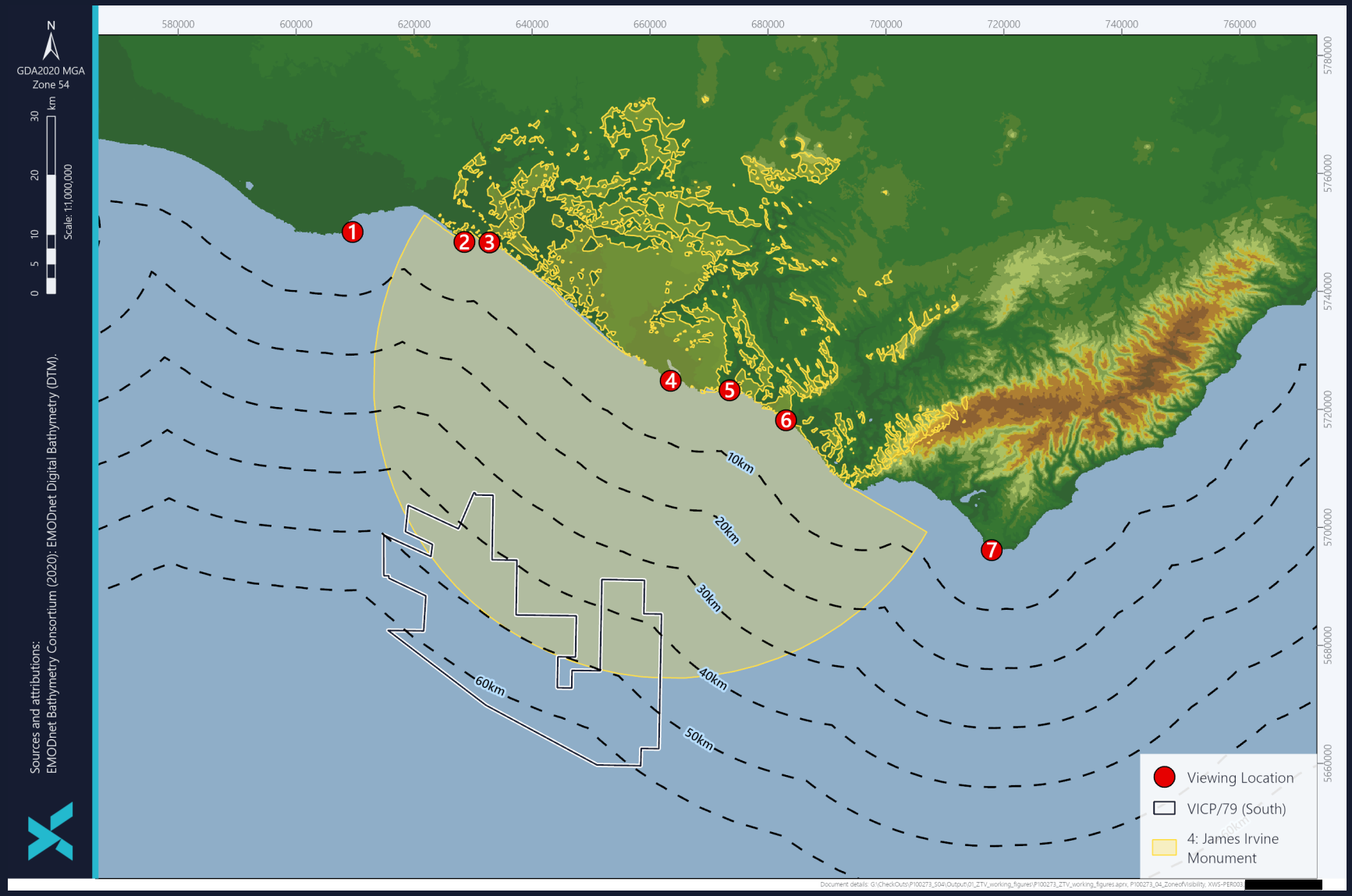
Site 2 viewshed for 120 m high object



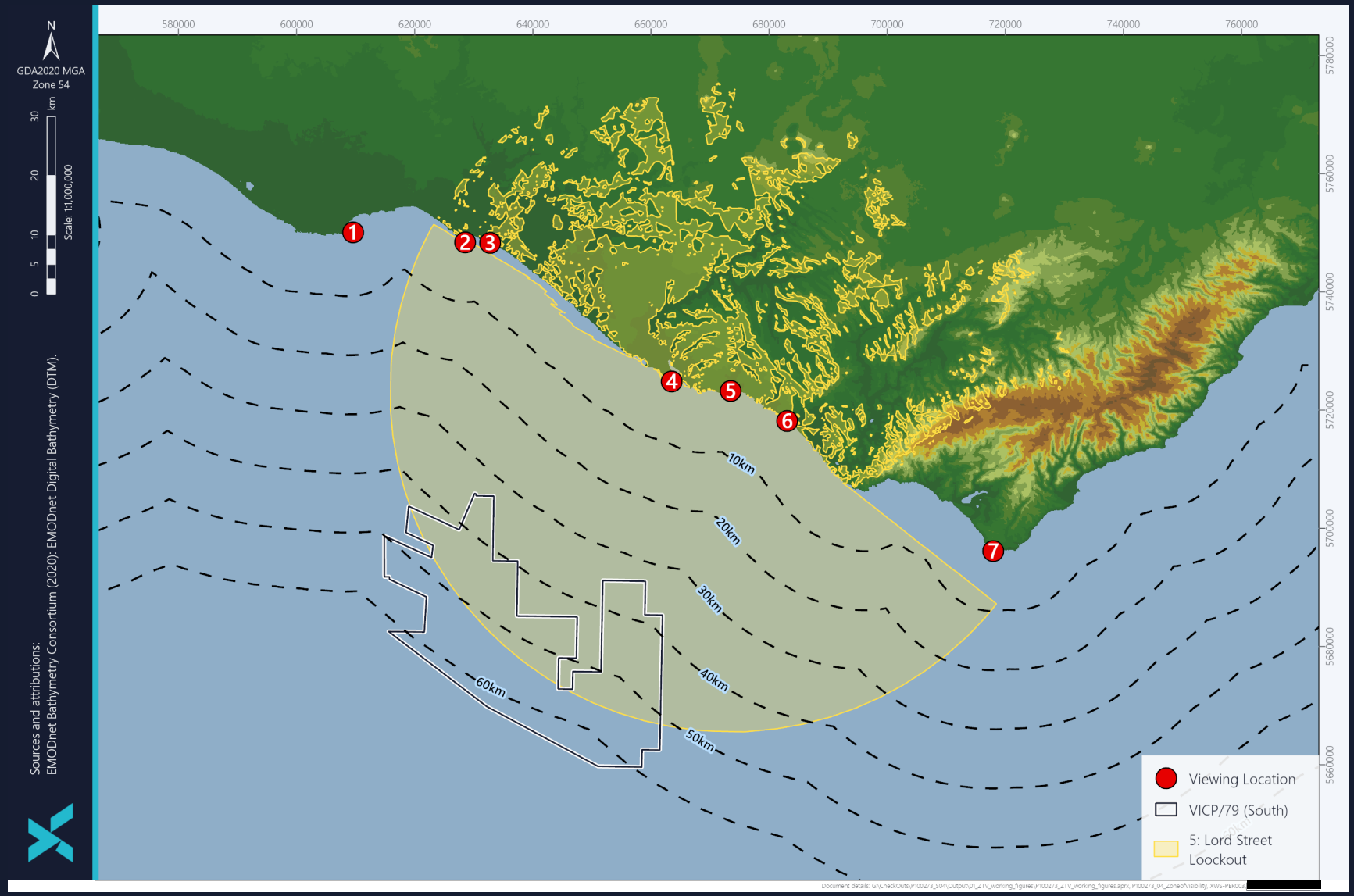
Site 3 viewshed for 120 m high object



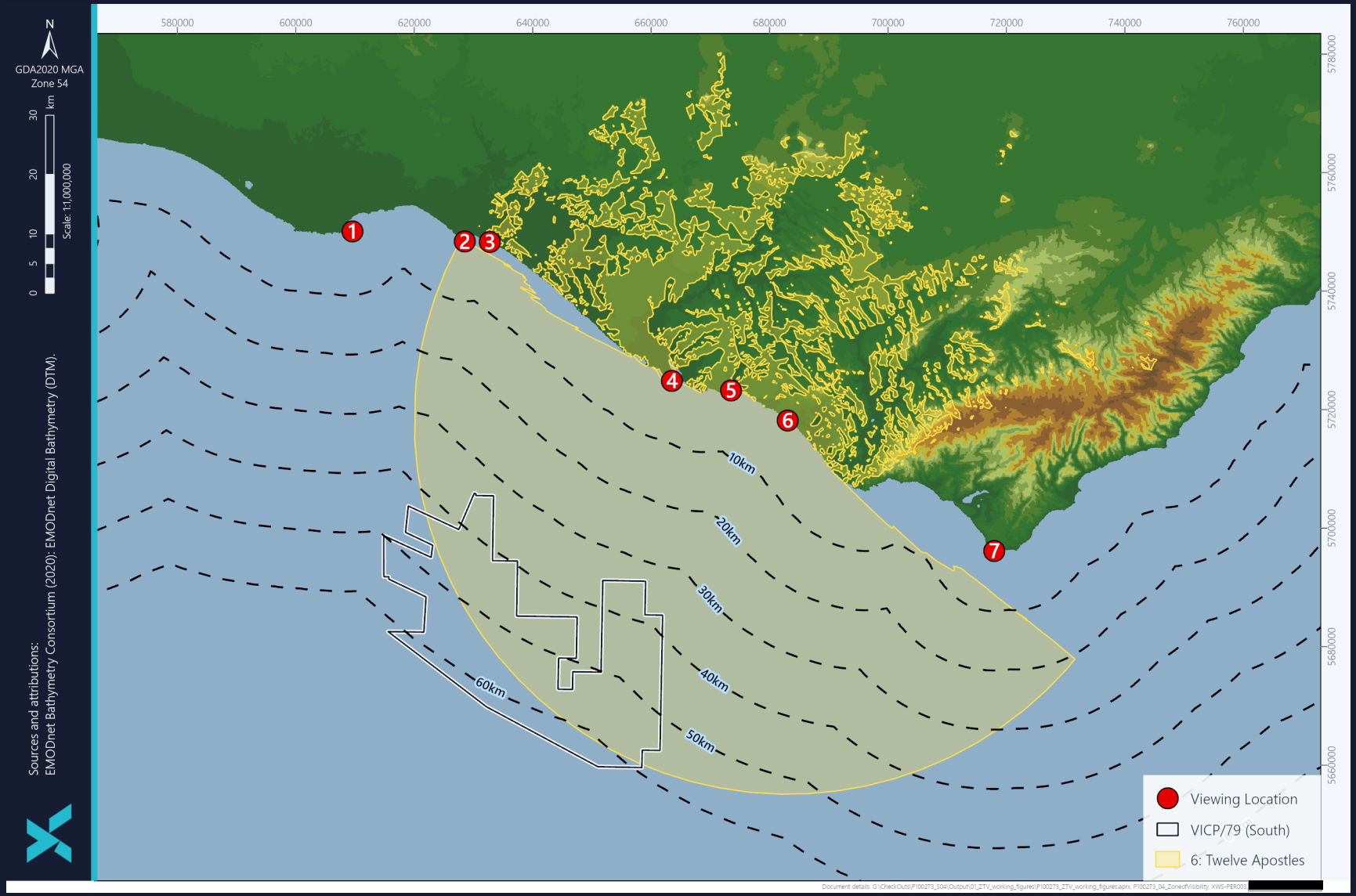
Site 4 viewshed for 120 m high object



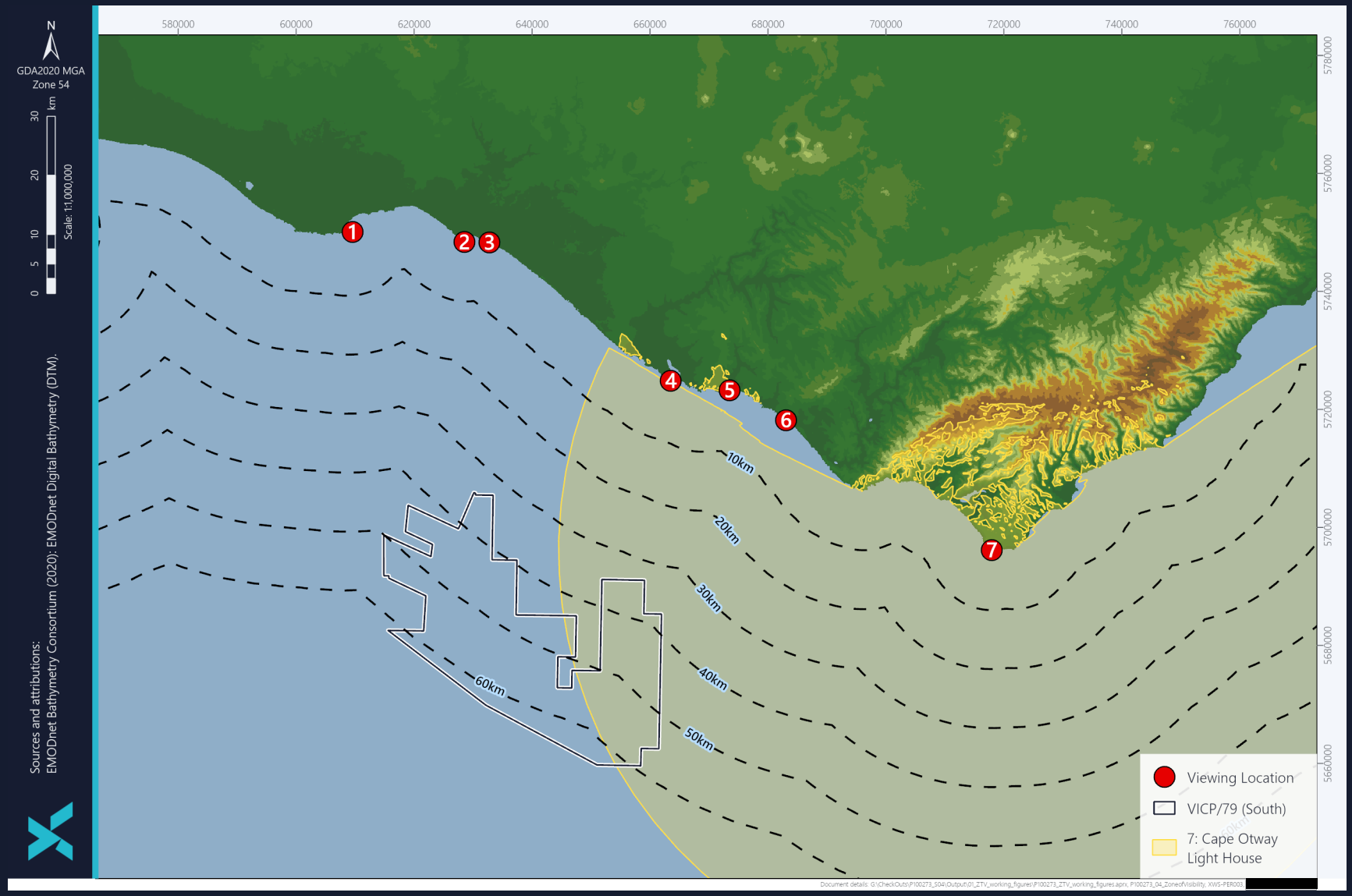
Site 5 viewshed for 120 m high object



Site 6 viewshed for 120 m high object



Site 7 viewshed for 120 m high object

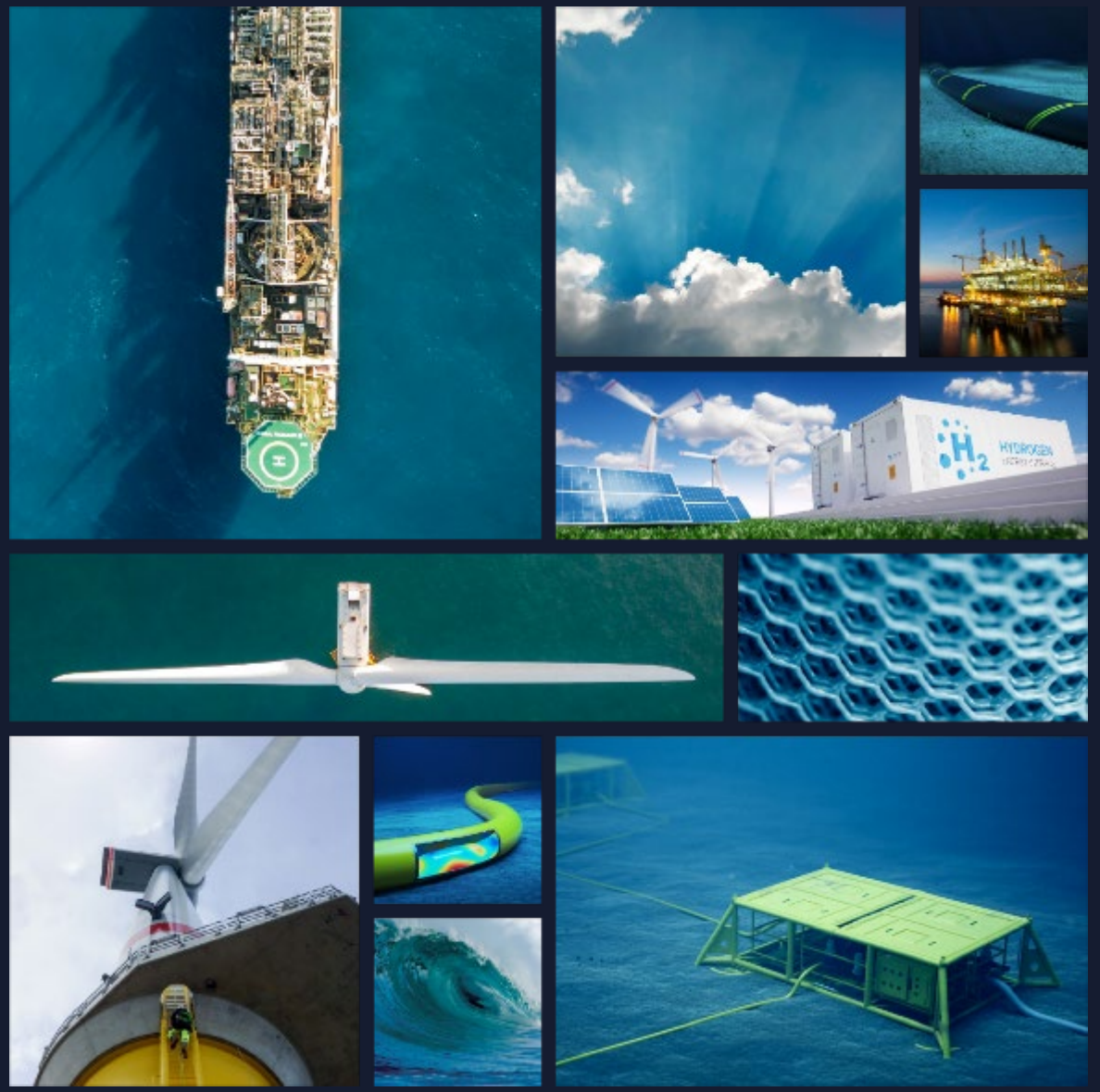


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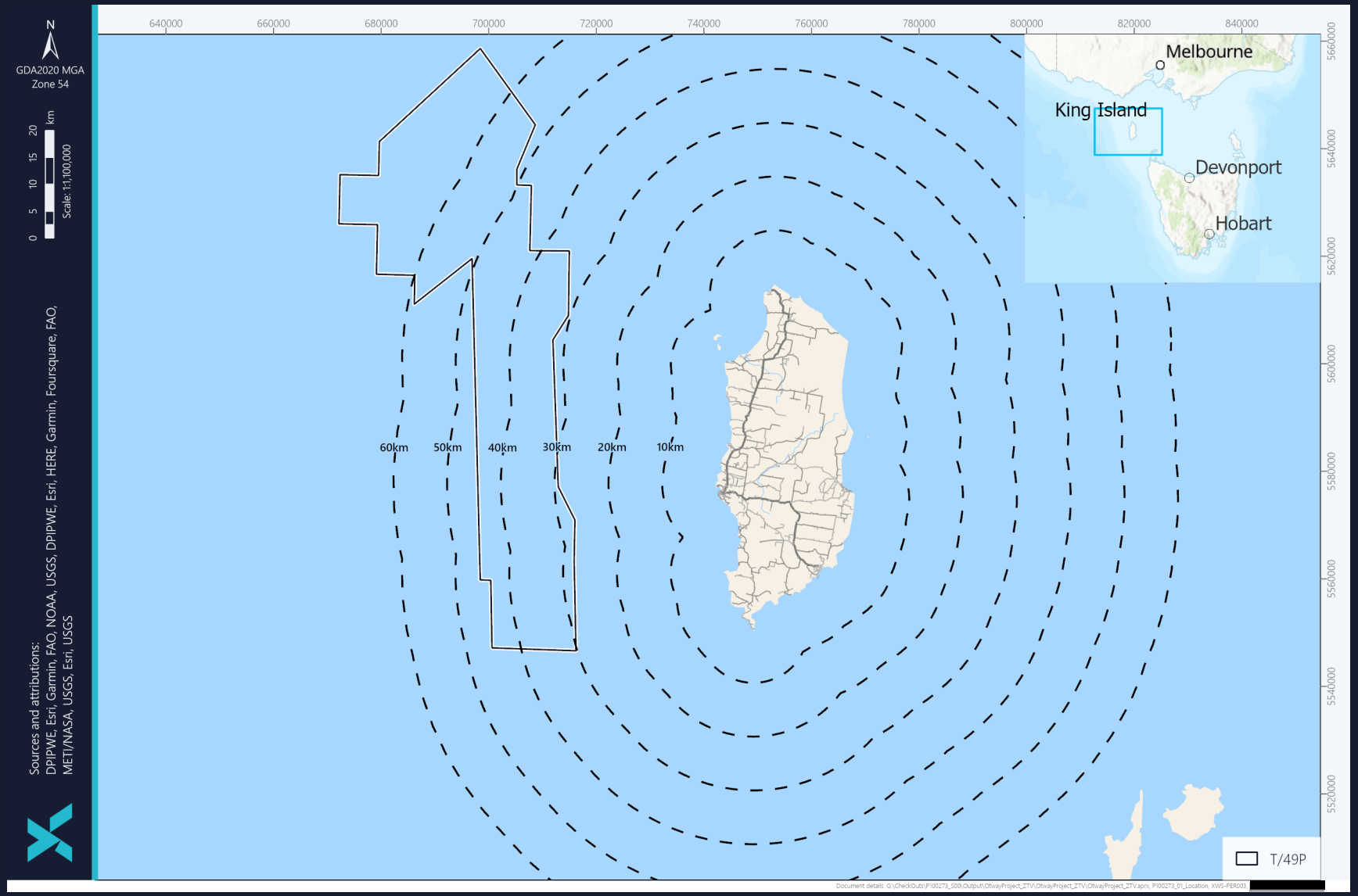
Zone of Theoretical Visibility (King Island)

Geospatial visibility analysis of exploration activities within T/49P

WWW.XODUSGROUP.COM



King Island and Otway Targets



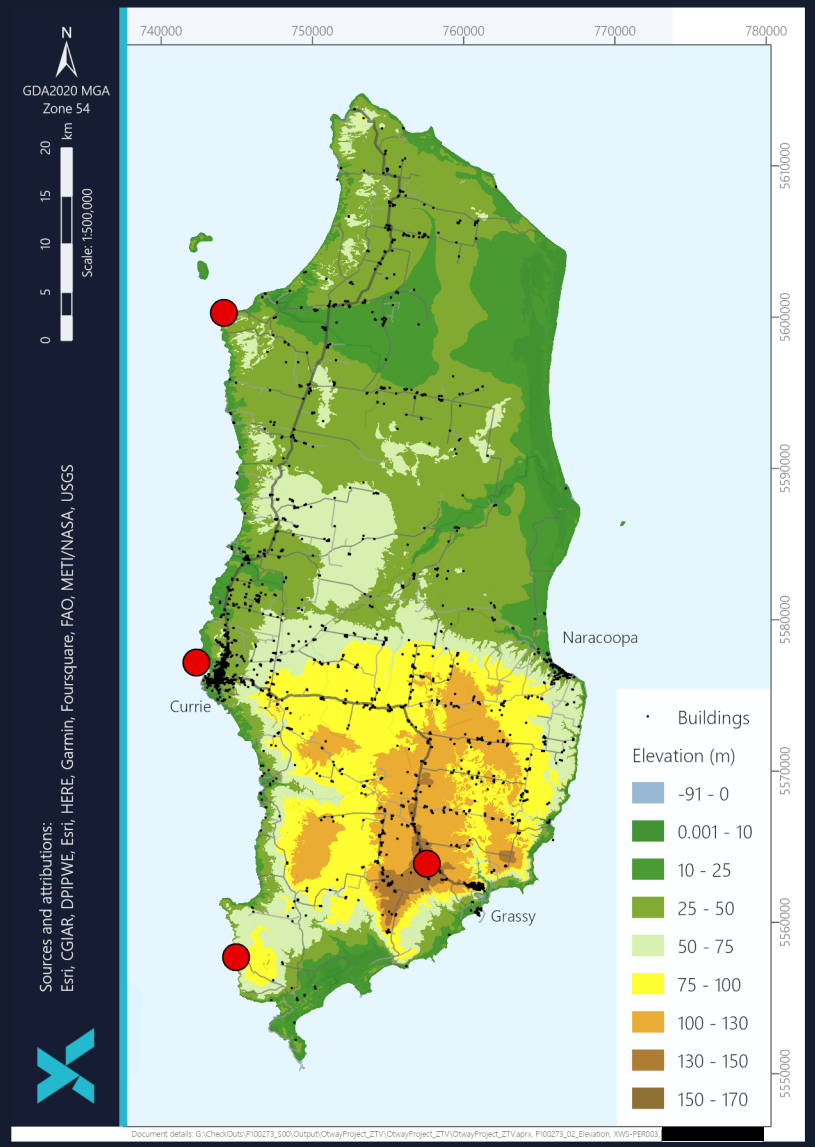
King Island is situated in the Bass Straight, north west of Tasmania and south of Victoria.

The Otway Exploration Drilling Campaign is located within Commonwealth waters in the Bass Strait, west of King Island.

The objective of this technical note is to present the outcomes of the assessment undertaken to estimate the Visual Impact from the campaign.

The study assess visibility of a platform from selected island locations.

King Island Elevation and Infrastructure

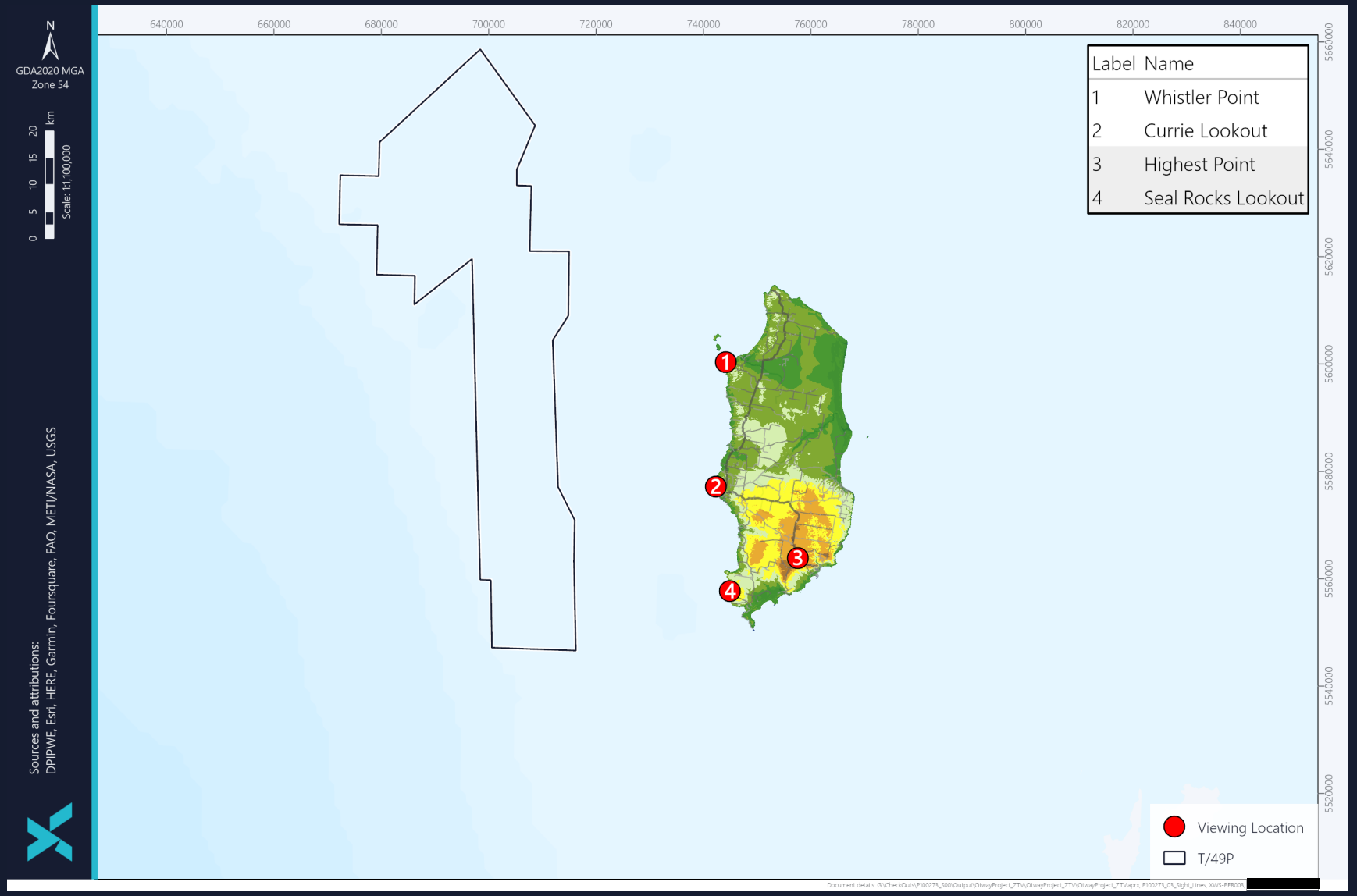


King Island has a relatively flat and low elevation northern half.

The southern region has a single main peak of approximately 162 m surrounded by rolling hills.

The main town is Currie, with two smaller villages of Grassy and Naracoopa.

King Island Viewing Locations



For this study, four locations were chosen based on the following factors:

1. Elevation
2. Visual access
3. Tourism amenity
4. Proximity to a point of interest

Whistler Point
Site 1 is nearby to a coastal golf course and lighthouse. This site is conducive to tourism and visual amenity.

Currie Lookout
Site 2 is located above Devils Rock. This site was chosen due to elevation, visual access and proximity to the main town.

Highest Point
Site 3 is the highest point on King Island at approximately 160 m above sea level. The location itself is on private land approximately 200 m from the public road. This site is selected purely on elevation.

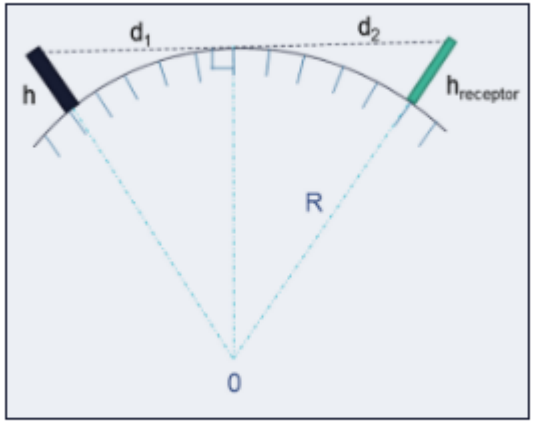
Seal Rocks Lookout
Site 4 is the main cliff top lookout on King Island. It is selected due to elevation, visual amenity and being a major tourist attraction.

Line of Sight Calculation

$$d = \left(2 \blacksquare \frac{4}{3} R h_1 + h_1^2\right)^{0.5} + \left(2 \blacksquare \frac{4}{3} R h_2 + h_2^2\right)^{0.5}$$

Where

- h_1 = height of object
- h_2 = height of receptor
- R = radius of earth
- d = total line of sight $(d_1 + d_2)$



Line of sight and Viewshed analyses are conducted using the standard calculation above.

The calculation determines a viewers (h) visible horizon limit (d_1). And if applicable, the observable distance of an object ($h_{receptor}$) beyond the horizon ($d_1 + d_2$).

As elevation/height of an observer increases, so does the distance to the horizon. Likewise, the viewable distance of an object beyond the horizon increases with it's elevation/height.

This assumes no adverse atmospheric conditions or obstructed field of view.

Calculated Viewshed

Label	Name	Elevation (m)	Horizon (km)	40 m Deck (km)	120 m Derrick (km)
1	Whistler Point	15	14.7	37.3	53.8
2	Currie Lookout	10	12.4	34.9	51.5
3	Highest Point	160	45.4	68.0	84.6
4	Seal Rocks Lookout	35	21.8	44.3	60.8

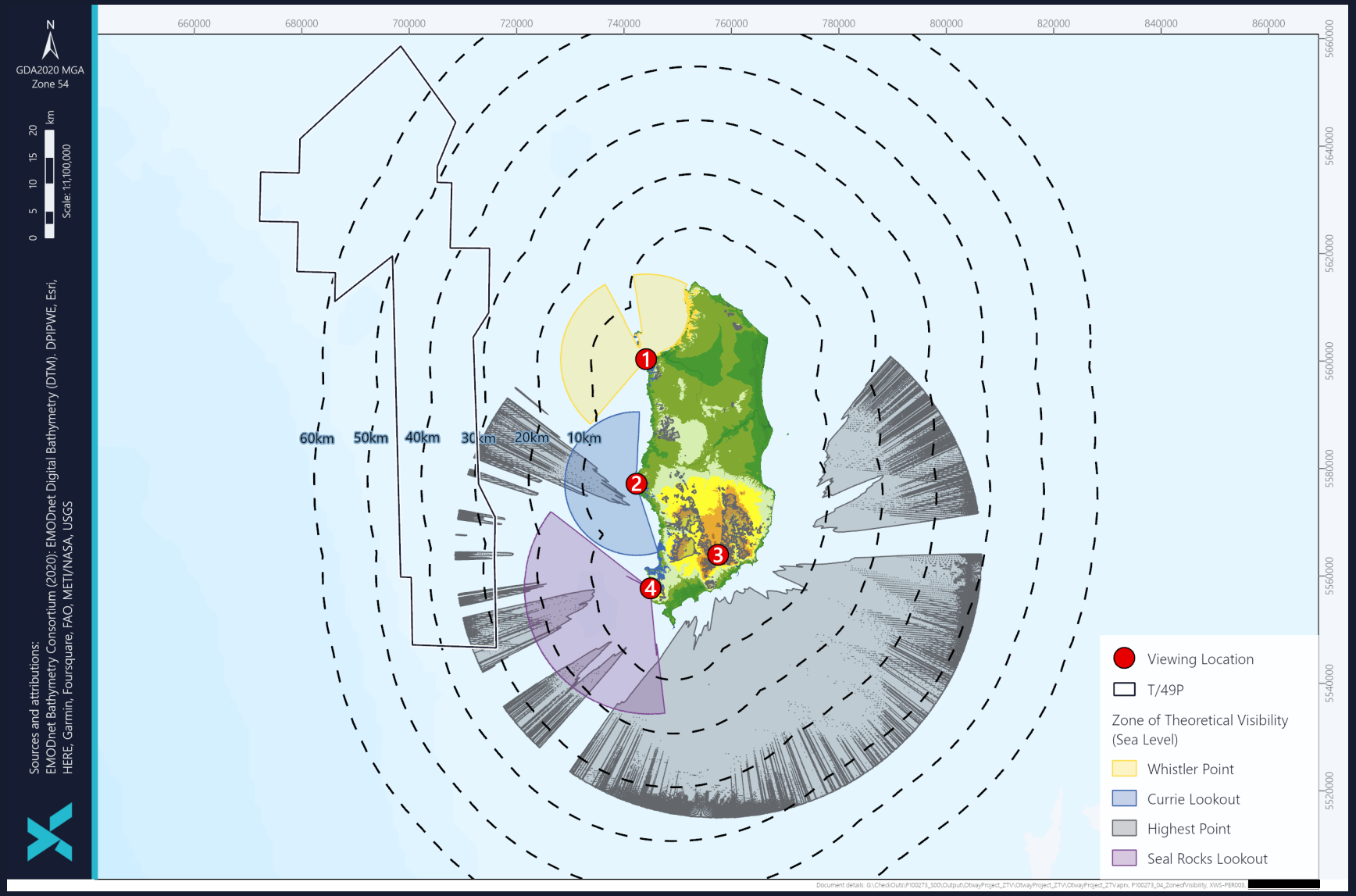
These values represent the inputs (Elevation) and outputs (Horizon or Platform) of the calculated visibilities.

A 2 m tall observer at Seal Rocks Lookout (approximately 35 m above sea level) will see 21.8 km to the horizon. A 120 m high object will appear above the horizon to the observer up to 60.8 km away.

As of writing, ConocoPhillips have not chosen a platform, therefore a generic worst case scenario height of 120 m has been used in this study.

Each location's elevation has had 2 m added as the observers height.

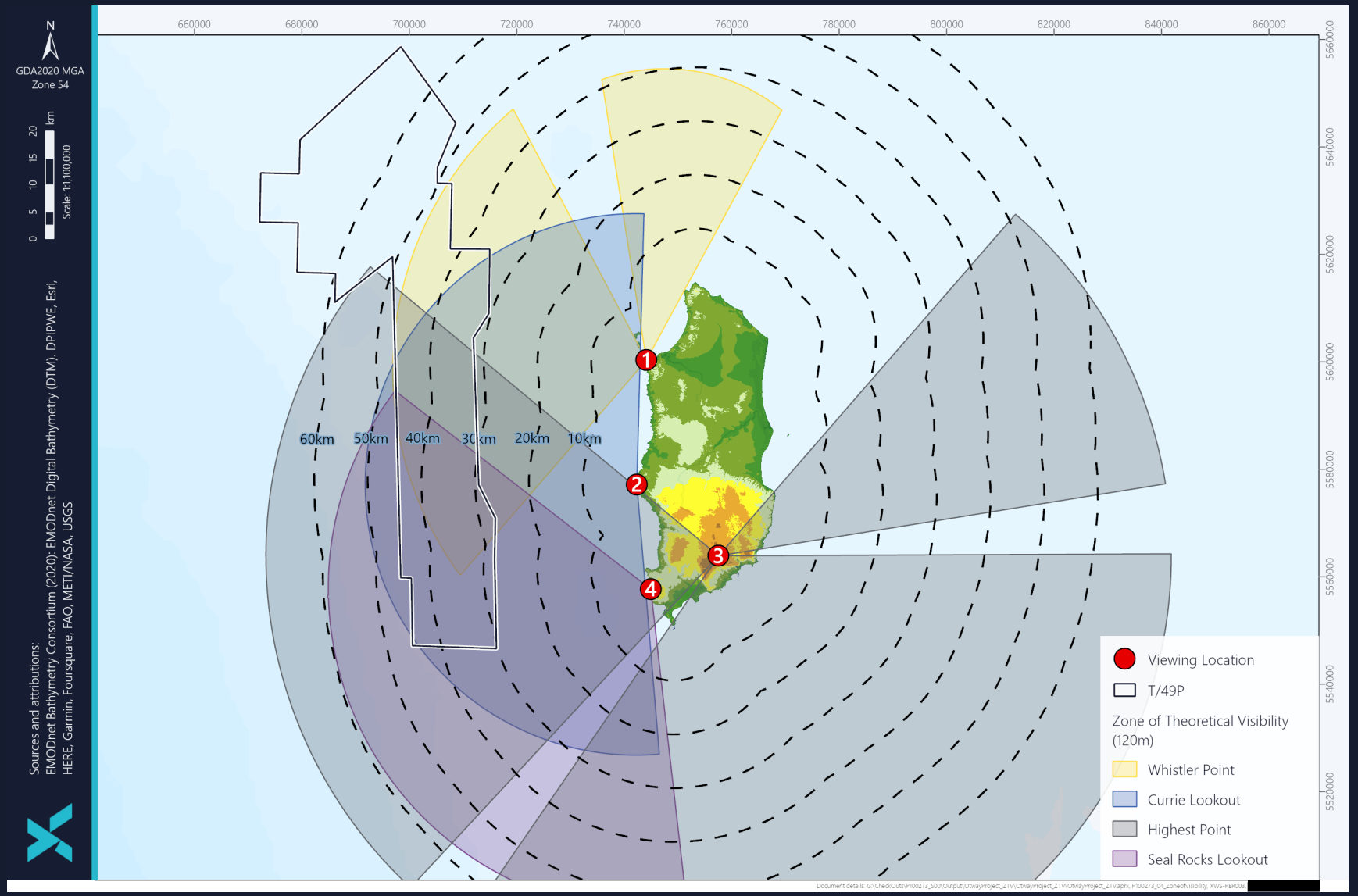
King Island Viewshed to Horizon



The fans of visibility represent the maximum viewable area from each location. As is demonstrated, the areas are dissected by local obstructions (islands and other landforms).

The Otway Target areas are not visible from Whistler Point, Currie or Seal Rocks Lookout. Some eastern areas of the V1 Seal Rocks target area are visible from the Highest Point.

King Island Viewshed for an Object 120 m high



The fans of visibility represent the maximum viewable area of a 120 m high platform from each location.

An object 120 m high within the Otway Target areas will be visible from at least one of the locations.

APPENDIX I OIL POLLUTION EMERGENCY PLAN (OPEP)

ConocoPhillips

Australia Business Unit

Otway Exploration Drilling Program
Oil Pollution Emergency Plan

ABU2-000-EN-V01-D-00005

In the event of a spill	
Immediate Notifications	Section 3.2.1, Page 37
Immediate Response Actions	Section 3.1, Page 33
Quick Reference Spill Response	Section 2, Page 15
Response Strategies	Section 4, Page 50

Revision Detail

Rev Number	Date	MOC Number	Author	Approver
000	7/11/2023	[redacted]	[redacted]	[redacted]

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Abbreviations and Definitions	
ABU	Australian Business Unit
ADIOS	Automated Data Inquiry for Oil Spills
AIIMS	Australasian Interagency Incident Management System
ALARP	As Low as Reasonably Practicable
AMOSC	Australian Marine Oil Spill Centre
AMSA	Australian Maritime Safety Authority
API	American Petroleum Institute
APPEA	Australian Petroleum Production & Exploration Association
ASAP	As Soon As Possible
BAOAC	Bonn Agreement Oil Appearance Code
BOM	Bureau of Meteorology
BOP	Blow Out Preventer
BP	Boiling Point
CA	Control Authority
CAA	Call Out Authority
CBT	Competency Based Training
CG	Core Group
CIMP	Crisis and Incident Management Plan
CMT	Crisis Management Team
COP	ConocoPhillips Australia
DEECA	Department of Environment, Energy and Climate Action
DISR	Department of Industry, Science and Resources
DTP	Department of Transport and Planning
EMT	Emergency Management Team
Environment	Defined under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 as: •ecosystems and their constituent parts, including people and communities •natural and physical resources •the qualities and characteristics of locations, places and areas, and •the heritage value of places and includes •the social, economic and cultural features of the matters mentioned above.
EP	Environmental Plan
EPA	Environmental Protection Agency
ERT	Emergency Response Team
ESG	Emergency Support Group
EU	Environmental Unit
EUL	Environmental Unit Lead
FIN	Finance
FOB	Forward Operating Base
GIMAT	Global Incident Management Assist Team
GIS	Geographic Information System
GM	General Manager
GNOME	General NOAA Operational Modelling Environment
GP	General Purpose

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Abbreviations and Definitions	
GEA	Governance and External Affairs
GM-HSE	General Manager – Health, Safety and Environment (COP)
HSE	Health, Safety and Environment
IAP	Incident Action Plan
IBA	Important Bird Area
IBC	Intermediate Bulk Container
IC	Incident Commander
ICS	Incident Command System
IMO	International Maritime Organisation
IMS	Incident Management System
IMT	Incident Management Team
IOGP	International Association of Oil & Gas Producers
IPIECA	International Petroleum Industry Environmental Conservation Association
IWCD	Independent Well Control Device
ISB	In-Situ Burning
JSCC	Joint Strategic Coordination Committee
KSAT	Kongsberg Satellite Services
LGA	Local Government Area
LOG	Logistics
LOWC	Loss of Well Control
MCP	Marine Conservation Program (under leadership of Department of Natural Resources and Environment (NRE Tas))
MDO	Marine Diesel Oil
MESCC	Maritime Emergency Strategic Coordination Committee
MLD	Mudline Closure Device
MODU	Mobile Offshore Drilling Unit
MOU	Memorandum of Understanding
NATPLAN	National Plan for Marine Oil Pollution
NEBA	Net Environmental Benefit Analysis
NM	Nautical Mile
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority
NP	National Park
NR	Not Recommended
NRE	Natural Resources and Environment (Department of) (Tas)
NRT	National Response Team
NSW	New South Wales
NV	Not Viable
OEDP	Otway Exploration Drilling Program
OEM	Original Equipment Manufacturer
OIM	Offshore Instillation Manager
OPEP	Oil Pollution Emergency Plan
OPGGS	Offshore Petroleum and Greenhouse Gas Storage
OPICC	Offshore Petroleum Incident Coordination Committee
OPS	Operations

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Abbreviations and Definitions	
OSC	Operations Section Chief
OSM	Operational and Scientific Monitoring
OSMP	Operational and Scientific Monitoring Plan
OSPR	Oil Spill Preparedness and Response
OSTM	Oil Spill Trajectory Modelling
OWR	Oiled Wildlife Response
PECS	Pre-emptive-Capping Stack
PLA	Planning
POLREP	Pollution Report
PPE	Personal Protective Equipment
PSC	Planning Section Chief
PSZ	Petroleum Safety Zone
RAMSAR	Convention of Wetlands of International Importance
ROV	Remote Operated Vehicle
RWP	Relief Well Plan
SCAT	Shoreline Cleanup and Assessment Technique
SCERP	Source Control Emergency Response Plan
SES	State Emergency Service
SFRT	Subsea First Response Toolkit
SIMA	Spill Impact Mitigation Assessment
SIT	Situation Unit
SITL	Situation Unit Team Leader
SITREP	Situation Report
SME	Subject Matter Expert
SMEACS	Situation, Mission, Execution, Administration, Command and Control, Safety
SMPC	State Marine Pollution Controller
SMPEP	Shipboard Marine Pollution Emergency Plan
SMV	Surveillance, Modelling and Visualisation
SNA	Safe Navigation Area
SOPEP	Shipping Oil Pollution Emergency Plan
TAS	Tasmania
TEC	Threatened Ecological Communities
TRP	Tactical Response Plan
VHF	Very High Frequency
VIC	Victoria
VM	Vessel Master
VTS	Vessel Traffic Service
WCD	Worst Case Discharge
WHAM	Wildlife Health and Marine Section of NRE Tas

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1. Introduction

ConocoPhillips Australia SH1 Pty Limited and ConocoPhillips Australia SH2 Pty Limited hold an 80% interest in and operatorship of Exploration Permits VIC/P79 and T/49P, respectively. Collectively these entities are called 'ConocoPhillips Australia or COP (in checklists)' for the purposes of this Oil Pollution Emergency Plan (OPEP).

This OPEP has been prepared in accordance with Regulations 14(8), 14(8AA) and 14(8A) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations) to support the ConocoPhillips Australia's Otway Exploration Drilling Program in Permits VIC/P79 and T/49P (see Figure 2-1), located in Commonwealth waters of the offshore Otway Basin.

1.1. Purpose

The purpose of this OPEP is to describe the arrangements that ConocoPhillips Australia has in place to prepare for, respond to and monitor an oil pollution event, including:

- Control measures for a timely and effective response to an emergency that results, or may result, in oil pollution
- Arrangements and capability that will be in place for the duration of the activity to ensure timely implementation of pre-determined control measures, including arrangements for ongoing maintenance of response capability
- Arrangements and capability that will be in place for monitoring the effectiveness of the control measures and ensuring that the environmental performance standards are met, and
- Arrangements and capability in place for operational monitoring of oil pollution to inform response activities.

The processes and response structures used by ConocoPhillips Australia demonstrate effective integration and use of industry/government response efforts and resources.

The objective of this OPEP is to detail the actions that ConocoPhillips Australia will undertake during the event of an oil spill resulting from exploration activities.

1.2. Scope

This OPEP covers potential oil pollution emergencies that may result from activities associated with the Otway Exploration Drilling Program undertaken in permit areas VIC/P79 and T/49P. The OPEP recognises and incorporates the divisions of responsibility as defined under the terms of the National Plan for Maritime Environmental Emergencies (NATPLAN, 2020).

1.3. Otway Exploration Drilling Program Activities

This OPEP has been developed to address the oil spill risk associated with petroleum activities described in the Otway Exploration Drilling Program Environment Plan (EP). The EP provides further details on the description of activities, existing environment, assessment and management of environmental impacts and risks, and mitigations.

Otway exploration activities will occur within defined operational areas located entirely within offshore permits VIC/P79 and T/49P (Figure 1-1). The petroleum activities assessed in the EP which present a risk of oil spill and are covered by this OPEP, include:

- Seabed clearance surveys (seabed surveys), and
- Exploration drilling of up to 6 exploration wells, including support activities.

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Seabed surveys may commence from 1 January 2024 and drilling may commence from 1 October 2024, subject to complying with other requirements in the EP. The term of the EP is from 1 January 2024 to 31 December 2028.

Seabed surveys involve the use of 1-2 survey vessels and drilling involves the use of a semi-submersible mobile offshore drilling unit (MODU) and up to three support vessels. The MODU and survey / support vessels carry marine diesel oil (MDO), or similar e.g. marine gas oil, which may be released in the event of a vessel to vessel or vessel to MODU collision during bunkering or as a result of equipment failure.

During drilling operations a failure of one or more well barriers may result in a situation where pressure control has been lost and reservoir fluids are free to flow to surface through the unsecured wellbore. Although extremely unlikely, these situations have the potential to result in a Loss of Well Control (LOWC) event whereby gas condensate is released into the marine environment.

1.4. Interface with Other Documentation and Plans

This OPEP integrates with the following emergency planning documentation:

- The National Plan for Maritime Environmental Emergencies (NATPLAN) (AMSA, 2020) – AMSA is the jurisdictional authority for spills from vessels in or affecting Commonwealth Waters, and the coordinator of the NATPLAN
- The Victorian State Maritime Emergencies (Non-search and Rescue) Plan (VicPlan) (Emergency Management Victoria, 2021) – Victorian Department of Transport and Planning (DTP-Vic) is the Control Agency for spills that impact Victorian State Waters
- The Tasmanian Marine Oil and Chemical Spill Contingency Plan (TasPlan) (TasEPA, 2022) – The Environment Protection Authority Tasmania (TasEPA) is the Control Agency for spills that impact Tasmanian State Waters.

The OPEP interfaces with a number of ConocoPhillips Australia emergency response documents, including:

- Crisis and Incident Management Plan (CIMP) (ABUE-450-HS-N05-C-00119)
- Emergency Contact Directory (ABUE-450-HS-L01-C-00001)
- Incident Reporting and Investigation Procedure (ABUE-450-HS-N05-C-00009)
- Business Continuity Plan (ABUE-450-HS-N05-C-00054)
- Otway Exploration Drilling Program Environment Plan (EP)
- Otway Exploration Drilling Program Source Control Emergency Response Plan (SCERP)
- Otway Exploration Drilling Program Relief Well Plan (RWP)
- Otway Exploration Drilling Program Operational and Scientific Monitoring Program (OSMP)
- Australia Business Unit – Operational Monitoring Plans (ABUE-450-EN-V01-C-00016)
- Australia Business Unit – Scientific Monitoring Plans (ABUE-450-EN-V01-C-00015)

The interface between key response documents and processes is pictorially represented in Figure 1-1 below.

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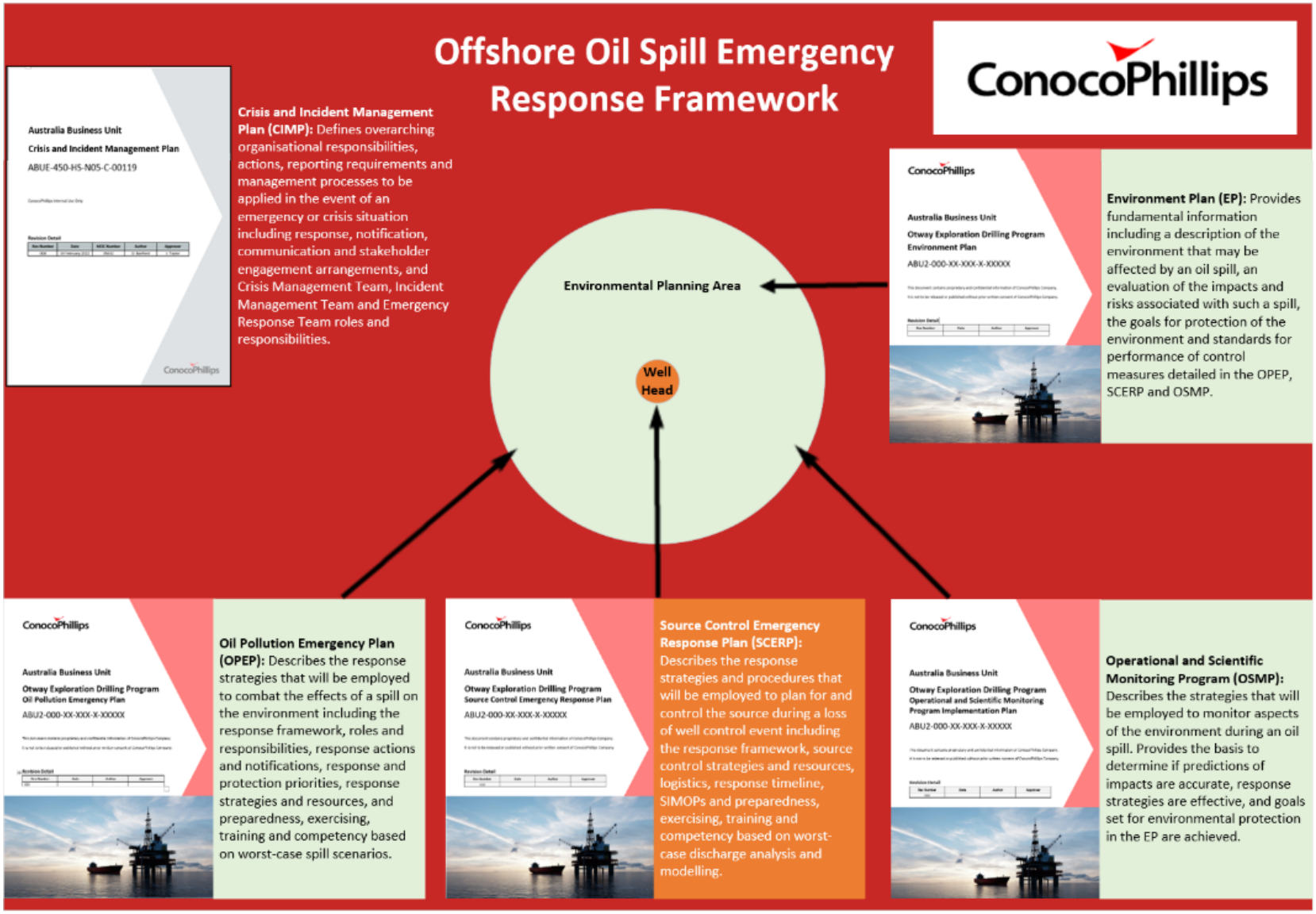


Figure 1-1: ConocoPhillips Australia offshore oil spill emergency response framework

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1.5. Review of OPEP

The OPEP will be reviewed and updated as required and no less than annually during the activity, to ensure that material information remains accurate. Updates should reflect outcomes of testing, assurance and continuous improvement activities, amended contractual arrangements and feedback from ongoing consultation. Timing for review will be consistent with the arrangements outlined in the EP, as per requirements of Regulation 14(8).

1.6. Training and Testing Arrangements

ConocoPhillips Australia is committed to ensuring staff with functional roles within the IMT and field operations teams are properly trained and skilled to complete the tasks required of them.

All oil spill response trained personnel will gain and maintain their competency through the following competency/skills maintenance program:

Competency Based Training (CBT):

- Incident Commanders to maintain current certification in the International Maritime Organisation (IMO) equivalent Course in Oil Spill Response Command & Control (IMO IIIeq).
- Incident Management Team function roles to maintain certification in the International Maritime Organisation (IMO) equivalent Course in Oil Spill Response Management (IMO IIeq).

Exercises:

- Annual participation in an oil spill functional position, within a ConocoPhillips desktop or activation exercise, using a ConocoPhillips Australia OPEP worst case credible scenario.

1.7. Health, Safety and Environment Policy

Oil spill response activities under the control of ConocoPhillips Australia shall be implemented in accordance with ConocoPhillips's Health, Safety and Environmental Policy, Standards, Practices and Guidelines, and consistent with the outcomes sought from the National Plan guidance paper *NP–GUI–026: Marine oil spill response health and safety*.

Prior to implementing spill response operations, for activities that are outside ConocoPhillips Australia's business as usual operations, activities will be risk assessed. Should new or heightened consequences be introduced, these shall be mitigated to As Low As Reasonably Practicable (ALARP). ConocoPhillips Australia will develop and implement a Spill Safety Plan which documents this process. Safety risk mitigation measures, including both process and personnel safety, will be established in accordance with the hierarchy of controls, as shown in Figure 1-2 below.

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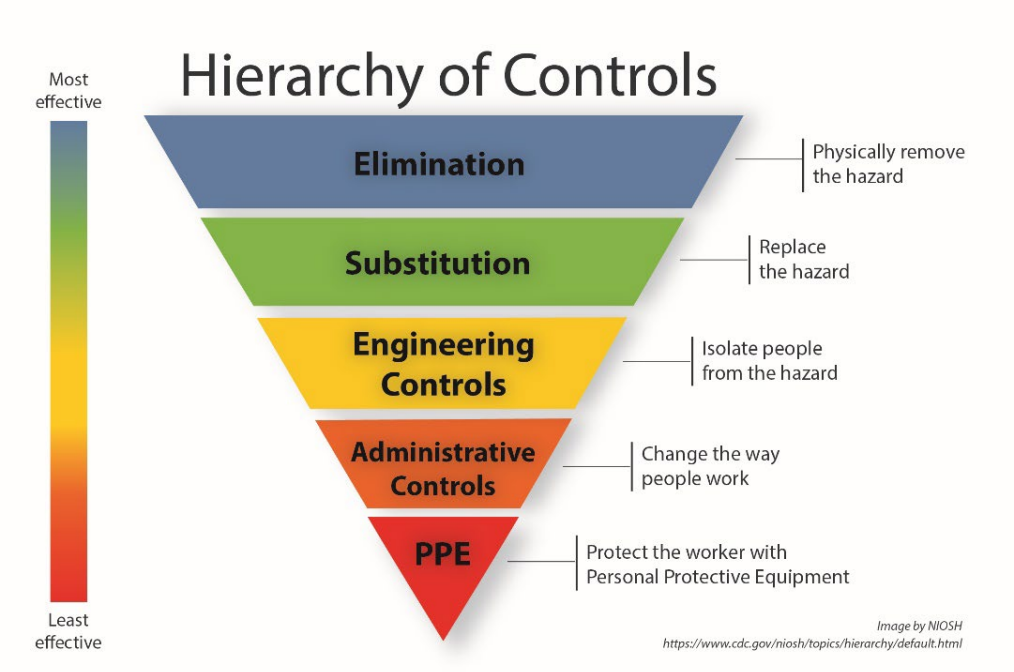


Figure 1-2: Hierarchy of controls

1.8. Spill Response Implementation and Environmental Performance

Environmental performance outcomes (EPOs) are measurable levels of performance required for the management of the Otway Exploration Drilling Program. EPOs ensure that the impacts and risks associated with the activities, including the risk of an oil pollution incident and consequential response activities, will be managed to an acceptable level.

Control Measures (CMs), being a system, an item of equipment, a person or procedure that are used as the basis for managing environmental impacts and risks associated with an oil spill response, have been identified to support achievement of the EPOs for this OPEP. Environmental performance standards (EPS) have been defined to provide a statement of the performance required of each of the identified CMs, and Measurement Criteria (MCs) have been developed to demonstrate how performance will be measured in an objective way.

Detailed EPOs, CMs, EPS' and MCs have been developed for response strategies identified in this OPEP and are collated in Section 6 to support implementation and ongoing monitoring and audit efforts.

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2. Quick Reference OPEP Information

2.1. Location

This OPEP applies to spills from activities associated with the ConocoPhillips Australia Otway Exploration Drilling Program within the defined operational areas for petroleum titles (permit areas) VIC/P79 and T/49P, as shown in Figure 2-1.

2.1.1. Operational Areas

Operational areas represent the broadest area within which all petroleum activities, namely seabed surveys and exploration drilling, can occur. Operational areas are located within and adjacent to the relevant permit areas (VIC/P79 and T/49P) as shown in Figure 1-1. Water depths in the operational areas ranges from 35 m to 670 m. Exact drilling locations will be confirmed prior to the commencement of drilling activities.

Survey and drilling support vessels will traverse from coastal departure locations to the operational areas and may reside outside of operational areas from time to time. Vessels moving to or residing outside of operational areas are not considered part of the activity until such time that they enter an operational area.

2.1.2. Safe Navigation Area (SNA)

A 500 m radius Safe Navigation Area (SNA) will be established around seabed survey vessels and any towed equipment when conducting seabed clearance activities. SNAs will be located entirely within the broader operational areas. Seabed surveys are expected to be conducted within 6 months prior to drilling.

2.1.3. Drilling Area

Exploration drilling will be undertaken at up to six locations within the operational areas. Drilling areas will be established around each exploration well, and will be located entirely within the broader operational areas. Each drilling area will be represented by a 2 km radius cautionary zone around the well site, also encompassing the 500 m Petroleum Safety Zone (PSZ), while the drilling rig is in location.

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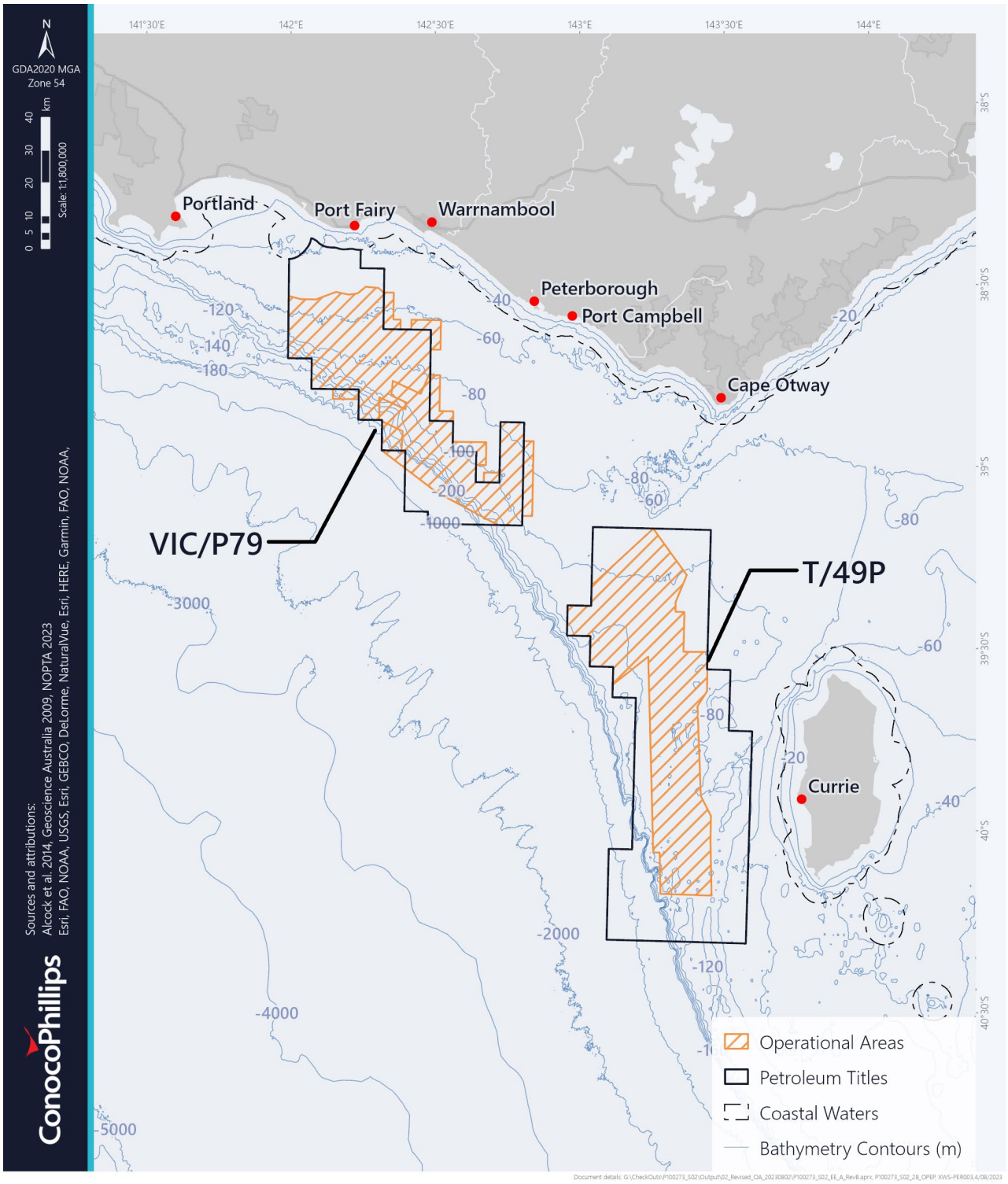


Figure 2-1: Operational areas within permits VIC/P79 and T/49P

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2.2. Potential Hydrocarbon Types

There are two types of hydrocarbons covered in this plan that are associated with the Otway exploration program:

- Marine Diesel Oil (MDO), and
- Gas Condensate.

2.2.1. Marine Diesel Oil

MDO is generally considered to be a low viscosity and non-persistent oil that readily degrades by naturally occurring microbes. MDO will spread quickly when released and forms a thin film on the sea surface, increasing the rate of evaporation. However, some heavy components will have a strong tendency to physically entrain into the upper water column in the presence of moderate winds (i.e. >12 knots) and breaking waves but can re-float to the surface if these energies abate. Generally, about 6.0% of the MDO mass is predicted to evaporate within the first 12 hours (Boiling point (BP) < 180°C); with a further 34.6% evaporating within the first 24 hours (180°C < BP < 265°C); and an additional 54.4% evaporating over several days (265°C < BP < 380°C). Approximately 5% (by mass) of MDO will not evaporate, though will decay slowly over time. Characteristics of MDO are detailed in Table 2-1 and Table 2-2.

Table 2-1: Physical characteristics of MDO

Parameter	Characteristics
Density (kg/m3)	829 at 15°C
API	37.6
Dynamic viscosity (cP)	4.0 at 25°C
Oil category	Group II
Oil persistence classification	Light-persistent oil

Table 2-2: Boiling point ranges for MDO

Characteristic	Non-Persistent			Persistent
	Volatiles (%)	Semi-volatiles (%)	Low volatiles (%)	Residual (%)
Boiling point (°C)	<180	180 – 265	265 – 380	>380
Marine Diesel Oil	6.0	34.6	54.4	5

2.2.2. Gas Condensate

Reservoirs within the Otway Basin are expected to be gas condensate. As a result, no Group III-IV oils will be present during drilling activities. The characteristics for Thylacine condensate have been used as a proxy for LOWC, given that ConocoPhillips Australia do not have operational wells within the Otway Basin.

Thylacine condensate has an API of 44.3, a density of 805 kg/m3 (at 15ºC) and a low viscosity value of 0.875 cP. The volatile to semi-volatile components (boiling point (BP) < 265 ^{o}C), which represent approximately 83 % of the condensate is predicted to evaporate over the first day if exposed to the atmosphere at local temperatures, leaving the less volatile portion (16%) to progressively evaporate more slowly. Only 1% of the condensate is considered persistent. The heavier components (i.e. low volatile portion) of the condensate will tend to entrain in the upper water column during the presence of moderate winds (> 10 knots) and can potentially remain entrained for as long as the winds persist. It can subsequently resurface when the winds ease, and waves abate. Characteristics of Thylacine condensate are detailed in Table 2-3 and Table 2-4.

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Table 2-3: Physical characteristics of Thylacine condensate

Parameter	Characteristics
Density (kg/m3)	805 at 15°C
API	44.3
Dynamic viscosity (cP)	9.95 at 50°C
Oil category	Group I
Oil persistence classification	Non-persistent oil

Table 2-4: Boiling point ranges for Thylacine condensate

Characteristic	Non-Persistent			Persistent
	Volatiles (%)	Semi-volatiles (%)	Low volatiles (%)	Residual (%)
Boiling point (°C)	<180	180 – 265	265 – 380	>380
Thylacine condensate	64.0	19.0	16.0	1.0

2.3. Risk/Credible Scenarios

The potential worst-case hydrocarbon spill scenarios relating to offshore petroleum activities are summarised in Table 2-5 and outlined below:

For seabed surveys, drilling rig and support vessel operations: a release of MDO from a vessel within the operational area.

- A vessel collision within the operational area resulting in a 350 m^3 surface release of MDO over 6 hours was identified as the worst-case credible spill scenario based on the AMSA Technical guidelines for preparing contingency plans for marine and coastal facilities (AMSA 2015). Calculation of discharge volume and timing align with the methodology recommended therein.

For drilling operations: an open-hole and unrestricted well release based on Worst Case Discharge (WCD) calculations.

- WCD calculations were completed in line with the ConocoPhillips Corporate Practice (Calculation and Documentation of Worst-Case Discharge, 2018) for a hypothetical Loss of Well Control (LOWC) scenario during exploration drilling. The WCD highest daily flow rate of hydrocarbons resulted in a predicted total spill volume of 139,400 m^3 over a 90-day duration.

Table 2-5: Summary of risk/credible scenarios for this OPEP

Spill Risk	Hydrocarbon Type	Worst-Case Volume	Spill Level	Location of spill	VIC/P79	T/49P
Vessel Collision	MDO	350 m^3 surface release over 6 hours	Level 1 or 2	Commonwealth	✓	✓
LOWC	Gas Condensate	139,400 m^3 over a 90-day duration.	Level 2 or 3	Commonwealth	✓	✓

Note. Further details regarding volumes, locations, potential release durations and environmental impacts are detailed within the Otway Exploration Drilling Program EP.

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2.4. Response Planning Areas

Predictive modelling was used to identify areas that may be exposed to hydrocarbons from hypothetical worst-case spill scenarios. As per NOPSEMA's Oil Spill Modelling Guidance (NOSEMA 2019) the following 'Moderate' oil exposure thresholds listed in Table 2-6 were used to identify the primary response planning areas.

Table 2-6: Exposure value thresholds

Floating Surface Oil		
Moderate	10 g/m^2 (˜10,000 litres/km^2)	Approximate lower limit for harmful exposures to birds and marine mammals.
Note. 50 g/m^2 (˜50,000 litres/km^2) represents the lower limit for consideration of response planning for surface oil.		
Shoreline Oil		
Moderate	100 g/m^2	Represents the minimum thickness that does not inhibit the potential for recovery and is best remediated by natural coastal processes.

Given that specific drilling locations have not yet been identified, modelling was conducted for a range of locations to represent the full extent of possible drilling locations across both operational areas. The details of the modelled locations are provided in Table 2-7.

Table 2-7: VIC/P79 MDO and LOWC modelling release locations

VIC/P79	Latitude	Longitude	Water depth (m)
Location 1	39° 5′ 17.4″ S	142° 48′ 23.1″ E	93
Location 2	38° 43′ 20.6″ S	142° 26′ 35.3″ E	74
Location 3	38° 5′ 8.9″ S	142° 5′ 8.9″ E	66
Location 4	38° 30′ 6.4″ S	142° 7′ 55.5″ E	45
T/49P	**Latitude**	**Longitude**	**Water depth (m)**
Location 1	39° 15′ 46.6″ S	143° 20′ 26.4″ E	93
Location 2	39° 47′ 49.7″ S	143° 30′ 46.3″ E	100
Location 3	40° 13′ 5.3″ S	143° 29′ 10.9″ E	114

2.4.1. Onshore Priority Planning Areas

Based on the modelling outputs, priority shoreline planning areas have been identified for each permit area. For planning purposes, the scenarios presented in Tables 2-8 and 2-9, and shown in Figures 2-2 and 2-3, represent the worst-case modelling outputs for shoreline loading for each permit area.

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Table 2-8: T/49P (LOWC) – Location 2

Location 2 (Stochastic - 100 runs/season)	139,400 m^3 released over 90 days	
Total Volume Ashore	196 m^3 in Winter, 71 m^3 in summer	
Impacted LGA's (>10% Probability)	**Volume (m^3)**	**Probability of shoreline contact (%) > 100gm/m^2**
Summer		
Circular Head	0.5	0%
King Island	71.6	96%
Reid Rock	<0.1	0%
Winter		
Anser Island	<0.1	0%
Circular Head	1.4	2%
Glennie Group	0.2	0%
Hunter Island	0.3	0%
Kanowna Island	0.2	0%
Kent Island Group	1.7	5%
King Island	196.3	100%
Norman Island	1.3	1%
Reid Rock	<0.1	0%
Skull Rock	0.2	0%
South Gippsland	3.5	1%
West Coast	0.5	0%
Wilsons Promontory West	3	1%
Location 2, (Deterministic) Worst Shoreline Accumulation (Winter)		
Total volume ashore	200 m^3	

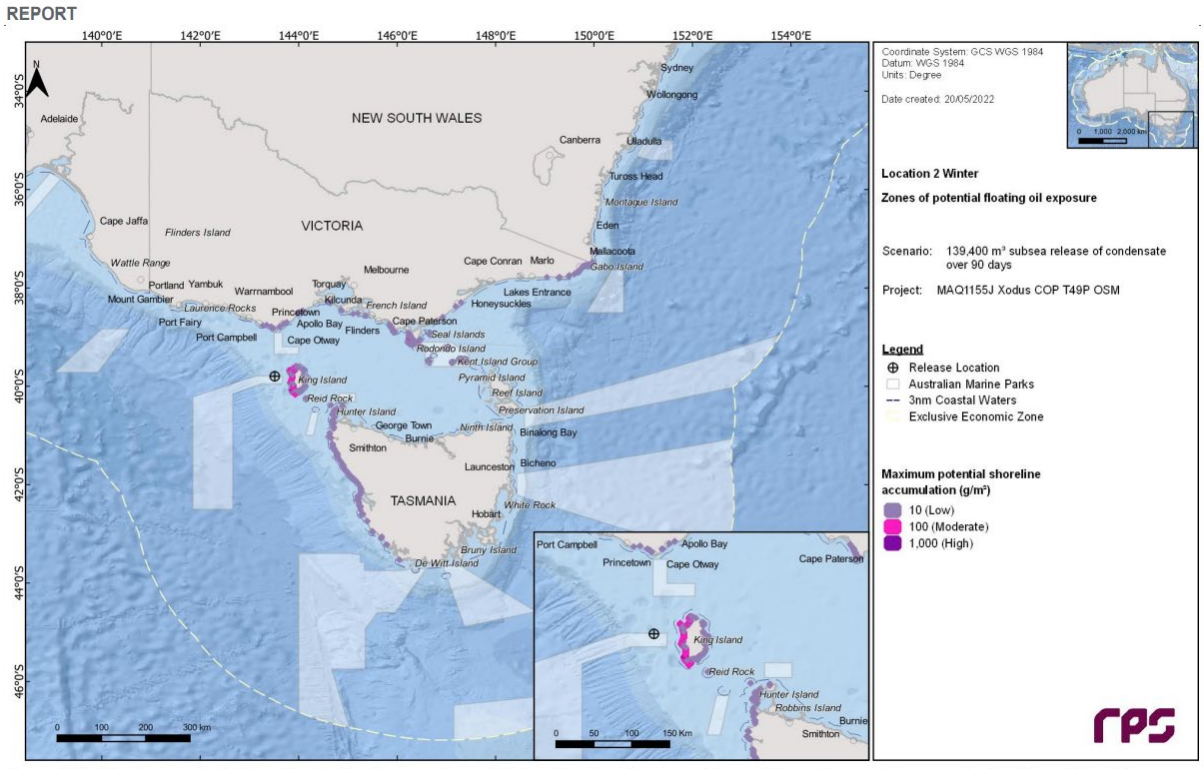


Figure 14.5 **Maximum potential shoreline loading from a subsea LOWC at Location 2 during winter conditions. The results were calculated from 100 spill simulations.**

Figure 2-2: T/49P Potential shoreline loading from a LOWC at Location 2, winter conditions.

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Table 2-9: VIC/P79 (LOWC) – Location 4

Location 4 (Stochastic - 100 runs/season)	139,400 m^3 released over 90 days	
Total Volume Ashore	318.9 m^3 in Winter, 236.6 m^3 in summer	
Impacted LGA's (>10% Probability)	**Volume (m^3)**	**Probability of shoreline contact (%) > 100gm/m^2**
Summer		
Colac Otway	22.1	14%
Corangamite	36.3	79%
Glenelg	94.5	65%
Lady Julia Percy Islands	16.1	67%
Laurence Rocks	9.4	47%
Moyne	108.6	95%
Warrnambool	121.9	74%
Winter		
Anser Island	0.6	0%
Bass Coast	3.5	1%
Colac Otway	42.8	66%
Corangamite	96.2	96%
Glenelg	63.8	23%
Glennie Group	1.7	0%
Kanowna Island	0.7	0%
Lady Julia Percy Islands	19.5	50%
Laurence Rocks	6	13%
Mornington Peninsula	2	0%
Moyne	176.9	100%
Norman Island	5.2	6%
Phillip Island	1.3	0%
Rodondo Island	0.4	0%
Shellback Island	0.7	0%
Skull Rock	0.6	0%
South Gippsland	17.6	12%
Surf Coast	1.4	0%
Warrnambool	125.3	88%
Location 4, (Deterministic) Worst Shoreline Accumulation (Winter)		
Total volume ashore	250 m^3	

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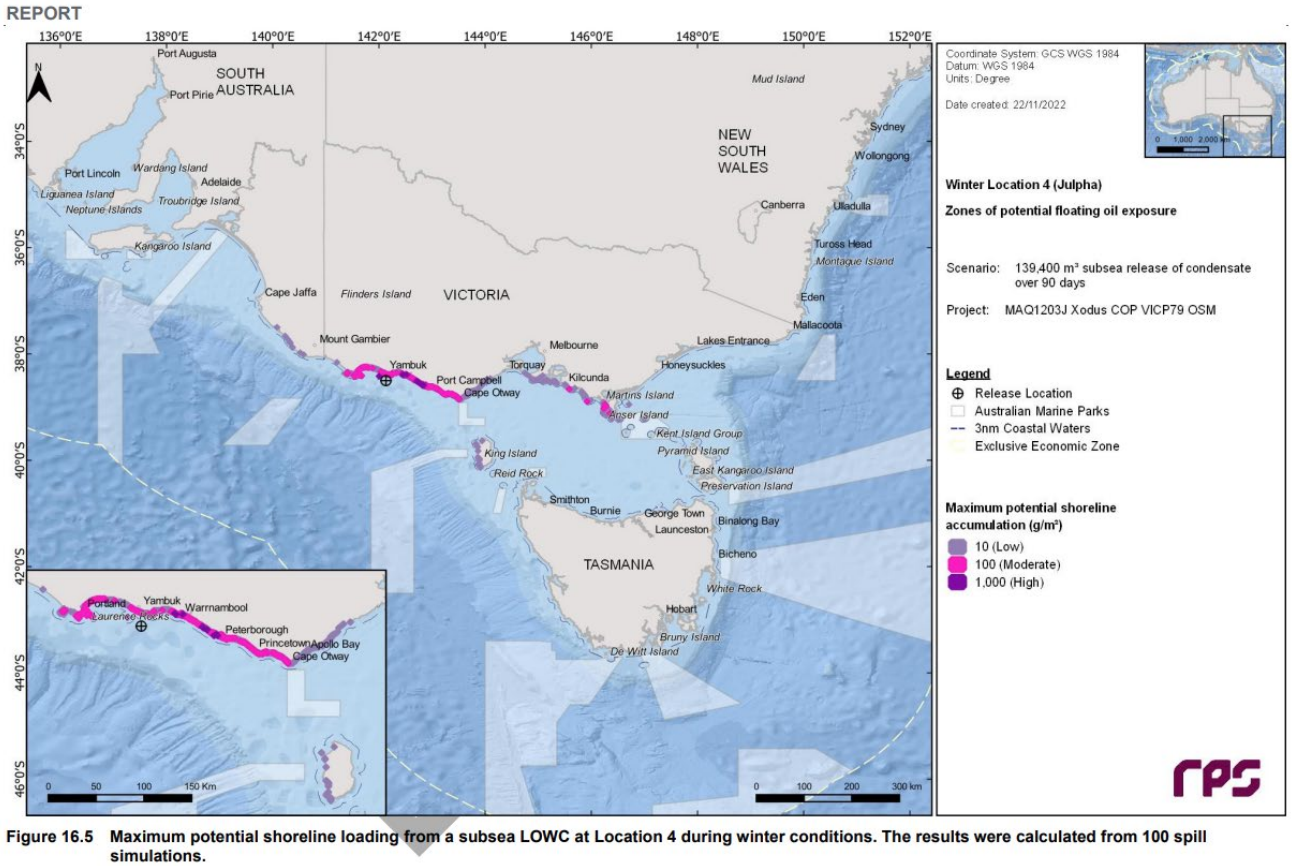


Figure 16.5 Maximum potential shoreline loading from a subsea LOWC at Location 4 during winter conditions. The results were calculated from 100 spill simulations.

Figure 2-3: VIC/P79 Potential shoreline loading from a LOWC at Location 4, winter conditions.

A timely and appropriate response for the identified areas for priority protection have been planned for in Section 5.3 – Shoreline Protection and Deflection and Section 5.4 – Shoreline Clean-up, of this OPEP. A series of Tactical Response Plans (TRPs) have been developed to assist in implementing a rapid response, details for implementation are outlined in the Shoreline Plan (Appendix 1).

2.5. Bass Strait – Environmental Conditions

The Otway Basin lies within the western portion of the Bass Strait, a sea strait separating Tasmania from the southern Australian mainland. The strait is a relatively shallow area of the continental shelf, connecting the southeast Indian Ocean with the Tasman Sea. This region is characterised by high winds and strong tidal currents. The following information has been drawn from the prediction modelling report (MAQ115J) generated by RPS for ConocoPhillips Australia's proposed exploration activities.

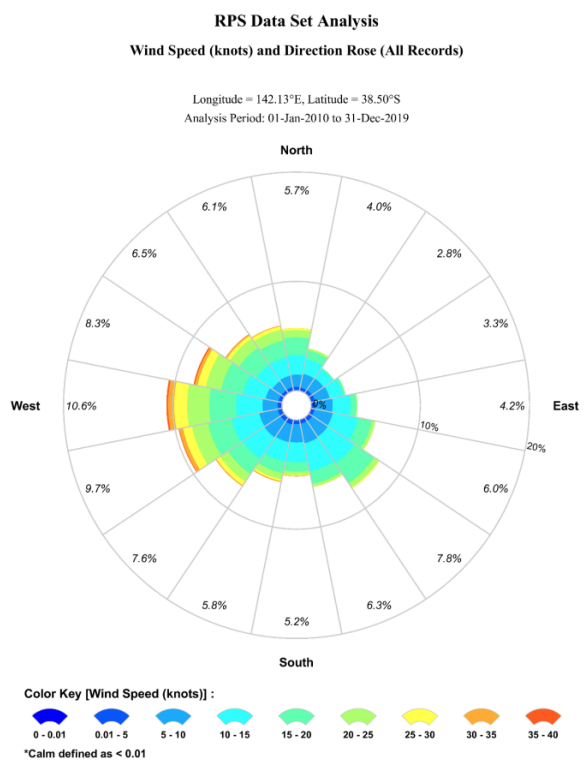
2.5.1. Temperature and Salinity

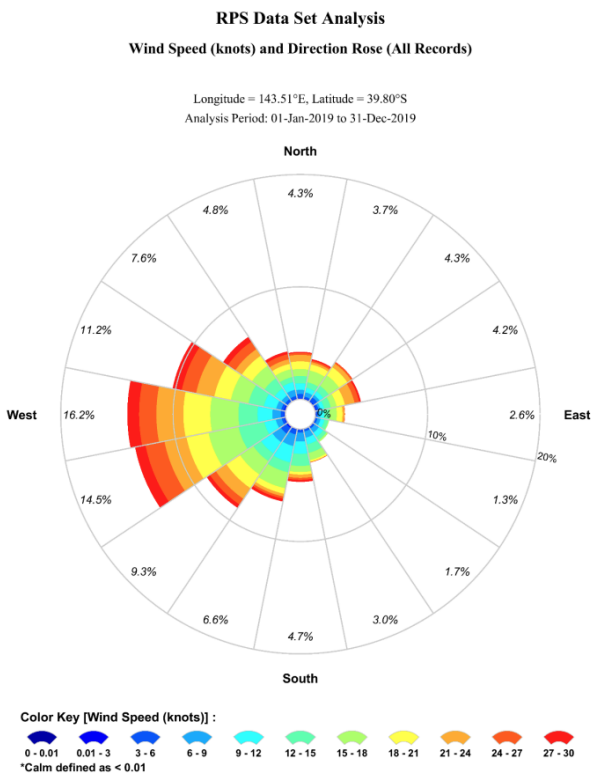
Monthly average sea surface temperatures range between 12.8°C (September, release location 3) and 18.4°C (March, release location 2). The monthly average salinity values remain relatively consistent ranging between 35.1 psu and 35.6 psu.

2.5.2. Wind

Wind speeds are predominantly 5-10 m/s year-round with stronger winds through the winter months. As per Section 2.4.1, the modelling outputs for VIC/P79 (LOWC) – Location 4 and T/49P (LOWC) – Location 2 indicated the greatest shoreline leading potential. Figure 2-4 provides the wind speed and direction roses for these locations.

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VIC/P79 Potential shoreline loading from a LOWC at Location 4.

T/49P Potential shoreline loading from a LOWC at Location 2.

Figure 2-4: Wind speed and direction roses for representative locations

2.5.3. Current

Currents are primarily driven by tides, winds and density driven flows as follows:

- **Winter** - the South Australian current moves dense, salty water eastward from the Great Australian Bight into the western margin of the Bass Strait. During winter there is a strong eastward water flow due to the strengthening of the South Australian Current (fed by the Leeuwin Current in the Northwest Shelf), which bifurcates with one extension moving though the Bass Strait, and another forming the Zeehan Current off western Tasmania.
- **Summer** - water flow reverses off Tasmania, King Island and the Otway Basin travelling eastward, as the coastal current develops due to south-easterly winds.

2.6. Selection of Response Strategies – Net Environmental Benefit Analysis

An analysis of the feasibility and effectiveness of available response strategies has been completed. Section 7.8 of the EP provides detailed justification statements, particularly where strategies have been considered not feasible and/or not effective.

Table 2-10 summarises the response strategies that are considered to be feasible in response to an MDO spill and gas condensate release associated with the proposed exploration activities.

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Table 2-10: Response strategy feasibility and implementation by hydrocarbon type

Response Strategy	Hydrocarbon Type		Feasible	Implementation
	Gas Condensate	Marine Diesel Oil		
Source Control	✓	✓	Yes	Yes
Surveillance, Modelling & Visualisation (SMV)	✓	✓	Yes	Yes
Natural Dispersion	✓	✓	Yes	Yes
In-situ Burning (ISB)	x	x	No	No
Surface Dispersant	x	x	No	No
Containment & Recovery (At-sea C&R)	x	x	No	No
Shoreline Protection & Deflection (P&D)	✓	✓	Yes	Yes
Shoreline Clean-up	✓	✓	Yes	Yes
Oiled Wildlife Response (OWR)	✓	✓	Yes	Yes
Waste Management	✓	✓	Yes	Yes
Operational & Scientific Monitoring (OSM)	✓	✓	Yes	Yes

2.6.1. Strategic (Pre-spill) NEBA

The following information reflects good practice as outlined in the IPIECA-IOGP Guideline: Response strategy development using net environmental benefit analysis (NEBA), 2016.

NEBA is a response tool used to select spill response strategies that are feasible to use safely in particular conditions, and will minimise the impact of the spill on the environment. The aim of its use is to support the selection of an agreed strategy for oil spill response, which has been informed by a systematic assessment and evaluation of multiple factors, with input from a number of stakeholders.

The NEBA process has been undertaken at a strategic level (pre-spill) to identify pre-determined recommended response strategies. An Operational NEBA will be undertaken routinely during a response to ensure that evolving conditions are understood, and response strategies are adjusted/optimised as necessary to meet the conditions at the time and specific end points.

The NEBA process comprises four stages:

1) *Compile and evaluate data* to identify an exposure scenario and potential response options, and to understand the potential impacts of that spill scenario.
2) *Predict the outcomes* for the given scenario, to determine which techniques are effective and feasible.
3) *Balance trade-offs* by weighing a range of ecological, social and economic benefits and drawbacks resulting from each feasible response option.
4) *Select the best response options* for the given scenario, based on which combination of tools and techniques will minimise impacts.

Multiple stakeholders are involved in the NEBA process, which relies on cooperation among governments, industry and communities to ensure that informed response decisions can be made which take all perspectives and viewpoints into account. During a spill, an Operational NEBA or Spill Impact Mitigation Assessment (SIMA) is to be completed to allow for strategy validation and adjustment as conditions evolve.

Pre-spill Strategic NEBA's are presented in Table 2-11 (MDO) and Table 2-12 (Gas Condensate), with the criteria used to determine receptor sensitivity ranking included in Table 2-13. These NEBA's are to be used to identify and agree on response strategies for each identified hydrocarbon type/scenario.

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Table 2-11: Strategic NEBA – Marine Diesel

Category	Sensitivity	Ranking (H/M/L)	Surveillance, Modelling & Visualisation	Natural Dispersion	In-situ Burn	Dispersant	Contain & Recover	Protect & Deflect	Shoreline Clean-up	Oiled Wildlife Response	Waste Management	Operational & Scientific Monitoring
Ecological	Water Surface	Medium	P	P	NP	NP	NR	NP	NP	V	NP	P
	Upper Water Column	Medium	P	P	NP	NP	NR	NP	NP	V	NP	P
	Lower Water Column	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Benthos/Seabed	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Sandy Beaches	Low	P	P	NP	NP	NR	P	P	V	P	P
	Rocky Shores	Low	P	P	NP	NP	NR	NP	NP	V	NP	P
	Coastal TECs – Subtropical and Temperate Coastal Saltmarsh and Giant Kelp Marine Forests of Southeast Australia	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Wetlands – RAMSAR and Nationally	Medium	P	P	NP	NP	NR	P	NR	V	NP	P
	King Island Important Bird Area (IBA)	Medium	P	P	NP	NP	NR	P	NR	P	NR	P
	Victorian Coastal Reserves (Onshore Parks)	Low	P	P	NP	NP	NR	P	NR	V	NR	P
	Tasmanian Protected Areas (Onshore)	Low	P	P	NP	NP	NR	P	NP	V	NP	P
	Australian Marine Parks	Medium-High	P	P	NP	NP	NR	NP	NP	V	NP	P
	State Marine Parks	Medium	P	P	NP	NP	NR	NP	NP	V	NP	P
	West Tasmanian Canyons	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Bonney Coastal Upwelling	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Big Horseshoe Canyon	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Upwelling East of Eden	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Canyons of the Eastern Continental Shelf	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Benthic Assemblages and Marine Flora	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Plankton	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Invertebrates	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Fish (including sharks)	Low	P	P	NP	NP	NR	NP	NP	P	NP	P
	Marine Mammals (Cetaceans and Pinnipeds)	Medium-High	P	P	NP	NP	NR	NP	NP	P	NP	P
	Marine Reptiles (Turtles)	Medium	P	P	NP	NP	NR	NP	NP	P	NP	P

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Category	Sensitivity	Ranking (H/M/L)	Surveillance, Modelling & Visualisation	Natural Dispersion	In-situ Burn	Dispersant	Contain & Recover	Protect & Deflect	Shoreline Clean-up	Oiled Wildlife Response	Waste Management	Operational & Scientific Monitoring
	Seabirds, Shorebirds, Migratory Birds and Aquatic Birds	Medium	P	P	NP	NP	NR	NP	NP	P	NP	P
Social	Shipwrecks	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Victorian Cultural Heritage Sites	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
	Tasmanian Cultural Heritage Sites (inc. King Island)	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
Economic	Commonwealth Managed Fisheries	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Victorian Managed Fisheries	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Tasmanian Managed Fisheries	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Shipping Traffic	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Defence Activities	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Offshore Infrastructure (other titleholders)	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Coastal Settlements (ports, marinas)	Medium-High	P	P	NP	NP	NR	P	NR	NP	NR	P
	King Island Industry	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
	Vic/Tas Coastal Aquaculture Intakes (Subsea)	Low	P	P	NP	NP	NR	NR	NR	NP	NR	P
	Victorian Desalination Plant Intake (Subsea)	Low	P	P	NP	NP	NR	NR	NR	NP	NP	P

Key		
P	Proposed	The Strategy will be deployed where safe to do so and where the NEBA indicates the strategy will result in net environmental benefit, and if the response or the spill is likely to impact State waters, the response will be approved by the State Jurisdictional Authority.
V	Viable	The Strategy will be considered as a viable option, but deployment may not be warranted because of the size of spill, conditions, and other factors at the time of the spill.
NR	Not Recommended	The Strategy may be viable but is not recommended either due to safety considerations or impacts of the strategy itself.
NV	Not Viable	The potential to deploy the Strategy effectively is limited.
NP	Not Practical	The Strategy cannot be implemented for the resource type, e.g., resource type is inaccessible and/or the resource type does not warrant this response.

Table 2-12: Strategic NEBA – Gas Condensate

Category	Sensitivity	Ranking (H/M/L)	Surveillance, Modelling & Visualisation	Natural Dispersion	In-situ Burn	Dispersant	Contain & Recover	Protect & Deflect	Shoreline Clean-up	Oiled Wildlife Response	Waste Management	Operational & Scientific Monitoring
Eco	Water Surface	Medium	P	P	NP	NP	NR	NP	NP	V	NP	P

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Category	Sensitivity	Ranking (H/M/L)	Surveillance, Modelling & Visualisation	Natural Dispersion	In-situ Burn	Dispersant	Contain & Recover	Protect & Deflect	Shoreline Clean-up	Oiled Wildlife Response	Waste Management	Operational & Scientific Monitoring
	Upper Water Column	Medium	P	P	NP	NP	NR	NP	NP	V	NP	P
	Lower Water Column	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Benthos/Seabed	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Sandy Beaches	Low	P	P	NP	NP	NR	P	P	V	P	P
	Rocky Shores	Low	P	P	NP	NP	NR	NP	NP	V	NP	P
	Coastal TECs – Subtropical and Temperate Coastal Saltmarsh and Giant Kelp Marine Forests of Southeast Australia	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Wetlands – RAMSAR and Nationally	Medium	P	P	NP	NP	NR	P	NR	V	NP	P
	King Island Important Bird Area (IBA)	Medium	P	P	NP	NP	NR	P	NR	P	NR	P
	Victorian Coastal Reserves/Onshore Parks	Low	P	P	NP	NP	NR	P	NR	V	NR	P
	Tasmanian Protected Areas (Onshore)	Low	P	P	NP	NP	NR	P	NP	V	NP	P
	Australian Marine Parks, Key Ecological Features	Medium-High	P	P	NP	NP	NR	NP	NP	V	NP	P
	State Marine Parks	Medium	P	P	NP	NP	NR	NP	NP	V	NP	P
	West Tasmanian Canyons	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Bonney Coastal Upwelling	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Big Horseshoe Canyon	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Upwelling East of Eden	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Canyons of the Eastern Continental Shelf	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Benthic Assemblages and Marine Flora	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Plankton	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Invertebrates	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Fish (including sharks)	Low	P	P	NP	NP	NR	NP	NP	P	NP	P
	Marine Mammals (Cetaceans and Pinnipeds)	Medium-High	P	P	NP	NP	NR	NP	NP	P	NP	P
	Marine Reptiles (Turtles)	Medium	P	P	NP	NP	NR	NP	NP	P	NP	P
	Seabirds, Shorebirds, Migratory Birds and Aquatic Birds	Medium	P	P	NP	NP	NR	NP	NP	P	NP	P

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Category	Sensitivity	Ranking (H/M/L)	Surveillance, Modelling & Visualisation	Natural Dispersion	In-situ Burn	Dispersant	Contain & Recover	Protect & Deflect	Shoreline Clean-up	Oiled Wildlife Response	Waste Management	Operational & Scientific Monitoring
Social	Shipwrecks	Low	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Victorian Cultural Heritage Sites	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
	Tasmanian Cultural Heritage Sites (inc. King Island)	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
Economic	Commonwealth Managed Fisheries	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Victorian Managed Fisheries	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Tasmanian Managed Fisheries	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Shipping Traffic	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Defence Activities	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Offshore Infrastructure (other titleholders)	Medium	P	P	NP	NP	NR	NP	NP	NP	NP	P
	Coastal Settlements (ports, marinas)	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
	King Island Industry	Medium	P	P	NP	NP	NR	P	NR	NP	NR	P
	Vic/Tas Coastal Aquaculture Intakes (Subsea)	Low	P	P	NP	NP	NR	NR	NR	NP	NR	P
	Victorian Desalination Plant Intake	Low	P	P	NP	NP	NR	NR	NR	NP	NP	P

Key		
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NV	Not Viable	The potential to deploy the Strategy effectively is limited.
NP	Not Practical	The Strategy cannot be implemented for the resource type, e.g., resource type is inaccessible and/or the resource type does not warrant this response.

Table 2-13: Criteria used to determine receptor sensitivity ranking (H/M/L) in the NEBA

Sensitivity*	Protected areas	Species status	BIA	Coastal habitat sensitivity	Receptors in the EMBA

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Low	No State marine protected areas. Commonwealth multiple use zones are the dominant component of protected areas.	Species is EPBC Listed, and impact expected to be limited to individuals with no population level impact. Present in the EMBA only occasionally or as vagrants, with no biologically important behaviours occurring. Populations known to recover rapidly from disturbance.	No BIA (or limited to only a few species of a particular faunal grouping).	Low sensitivity habitat, such as sandy beaches and exposed rocky shores, with rapid recovery from oiling (approximately 1 year or less). Public recreation beaches are not present or not widely used. No harbours or marinas.	• Benthic assemblages • Plankton • Invertebrates • Fish • Sandy beaches • Rocky shores • Non-indigenous heritage
Medium	No State marine protected areas. Little to no Commonwealth special purpose zonation.	Species may be EPBC Listed threatened or vulnerable and impact expected to be limited to individuals with no population level impact. Species may or may not be present at time of activity, however not undertaking biologically important behaviours. Some susceptibility to oiling. Populations may take a moderate time to recover from oiling.	Intersection with one or more BIAs, generally for distribution or foraging rather than breeding.	Moderately sensitive habitat present, such as sheltered rocky rubble coasts, exposed tidal flats, gravel beaches, mixed sand and gravel beaches, with a medium recovery period from oiling (approximately 2–5 years). Public recreation beaches present but not often used. No harbours or marinas.	• Marine reptiles • Seabirds • Coastal habitats and communities • Some cetaceans • Commercial fisheries • Other marine and coastal users • Energy exploration and production • First Nations heritage
High	State marine protected areas present. Commonwealth special purposes zones are the dominant component of the protected area.	Species are EPBC Listed Endangered or Critically Endangered Species known to be present at time of activity, undertaking biologically important behaviours. Known to be susceptible to oiling. Populations may take a long time to recover from oiling.	Significant intersection with one or more BIAs Notable overlap with spatially restricted BIA (e.g. breeding, nesting, migration)	Sensitive habitat present, such as mangrove, salt marshes, and sheltered tidal flats, with long recovery periods from oiling (> 5 years). Public recreation beaches present that are widely used. Busy harbours or marinas.	• Some cetaceans • Pinnipeds • Shorebirds • Aquatic birds • State Marine Protected Areas

* Not to be confused with ‘risk rating’ which is based on the ConocoPhillips Risk Matrix

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2.7. Statutory and Control Agencies

In any instance of a spill from ConocoPhillips Australia's petroleum activities, response activities should be considered to be regulated by NOPSEMA and directed by this OPEP, until such time as another control agency verifies its intention to stand up and assert control. As a response grows in size and complexity, a range of other parties and agencies may become involved, either to acquit a legislative obligation, or to provide support to a control agency as defined in Table 2-14.

Table 2-14: Oil spill response arrangements

Location	Spill Source	Jurisdictional Authority	Control Agency	
			Level 1	Level 2/3
Commonwealth waters (>3 NM from shorelines)	Petroleum Activity	NOPSEMA	ConocoPhillips	ConocoPhillips
	Vessel	AMSA	Vessel Owner/ Operator	AMSA
State waters (<3 NM of coastline)	Petroleum Activity	VIC DTP TasEPA	ConocoPhillips	VIC DTP/ TasEPA
	Vessel	VIC DTP TasEPA	Vessel Owner/ Operator	VIC DTP/ TasEPA or Relevant Port Authority

NOPSEMA – National Offshore Petroleum Safety and Environmental Management Authority; AMSA – Australian Maritime Safety Authority; VIC DTP – Victorian Department of Transport and Planning; TasEPA – Tasmanian Environment Protection Authority.

In all cases, for spills originating from ConocoPhillips Australia's assets and activities, ConocoPhillips Australia will facilitate the provision of resources to the control agency for their use in mitigating the consequences of the spill.

2.7.1. Control Agency Arrangements

The control agencies for the spill scenarios within the scope of this OPEP are detailed in Table 2-15.

Table 2-15: Control agency and jurisdiction

Activity	Control Agency and Jurisdiction
Vessels beyond 3 nm of the coast	**AMSA** Under the National Plan arrangements, AMSA may request that the state take control if: • The spill is likely to impact on the Victorian or Tasmanian shoreline • AMSA personnel are in-transit to the location of the incident and/or • It is more practical to have the state respond on behalf of AMSA.
Offshore petroleum activity beyond 3 nm of the coast	**ConocoPhillips Australia** Note: The state agency may provide a liaison officer within the IMT. The state agency will assume incident control for any portion of the spill that enters state waters, with ongoing support from ConocoPhillips Australia as Titleholder.

2.7.2. Commonwealth Arrangements

The Australian Maritime Safety Authority (AMSA) is the control agency for oil spills from vessels within Commonwealth waters. Upon notification of an incident involving a ship, AMSA will assume control of the incident and response in accordance with the National Plan for Maritime Environmental Emergencies. ConocoPhillips Australia will provide all available resources to AMSA to assist with the spill response, via the ConocoPhillips Australia Liaison Officer.

A Maritime Emergency Strategic Coordination Committee (MESCC) may be formed in the event of a significant maritime environmental emergency involving a ship within Commonwealth waters, or where the

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Australian Government is supporting a state under the National Plan arrangements. The MESCC is led by AMSA.

An Offshore Petroleum Incident Coordination Committee (OPICC) may be formed in the event of a significant offshore petroleum incident in Commonwealth waters. The OPICC is led by the Commonwealth Department of Industry, Science, and Resources (DISR).

2.7.3. Victorian State Arrangements

In Victoria, the Department of Transport and Planning (DTP) will assume control of response activities within 3 NM of the shoreline. ConocoPhillips Australia will maintain control of response operations for petroleum activity-related spills in Commonwealth waters and will provide available resources to the DTP to assist with the spill response, via the ConocoPhillips Australia Liaison Officer. This includes trained oil spill responders, shoreline equipment, shoreline tactical response and waste management plans and strategies. ConocoPhillips Australia will also mobilise resources as needed through the Australian Marine Oil Spill Centre (AMOSC) and the National Plan.

2.7.4. Tasmanian State Arrangements

In Tasmania, the Environment Protection Authority (EPA) is the control agency (and Hazard Management Agency) for spills within 3 NM of the shoreline. ConocoPhillips Australia will maintain control of response operations for petroleum activity-related spills in Commonwealth waters and will provide available resources to TasEPA to assist with the spill response, via the ConocoPhillips Australia Liaison Officer. This includes trained oil spill responders, shoreline equipment, shoreline tactical response and waste management plans and strategies. ConocoPhillips Australia will also mobilise resources as needed through the Australian Marine Oil Spill Centre (AMOSC) and the National Plan.

2.7.5. Cross Jurisdictional Arrangements

To facilitate the overarching coordination between two or more controlling agencies and their respective IMT's, a Joint Strategic Coordination Committee (JSCC) will be established similar to Figure 2-5. The JSCC will be chaired by the State Marine Pollution Controller (SMPC) and ConocoPhillips Australia's Crisis Management Team (CMT) leader. Attendees will be as deemed necessary by the chairs to ensure an effective coordinated response across jurisdictions. The role of the JSCC is to facilitate effective coordination between ConocoPhillips Australia and the State Control Agency IMTs.

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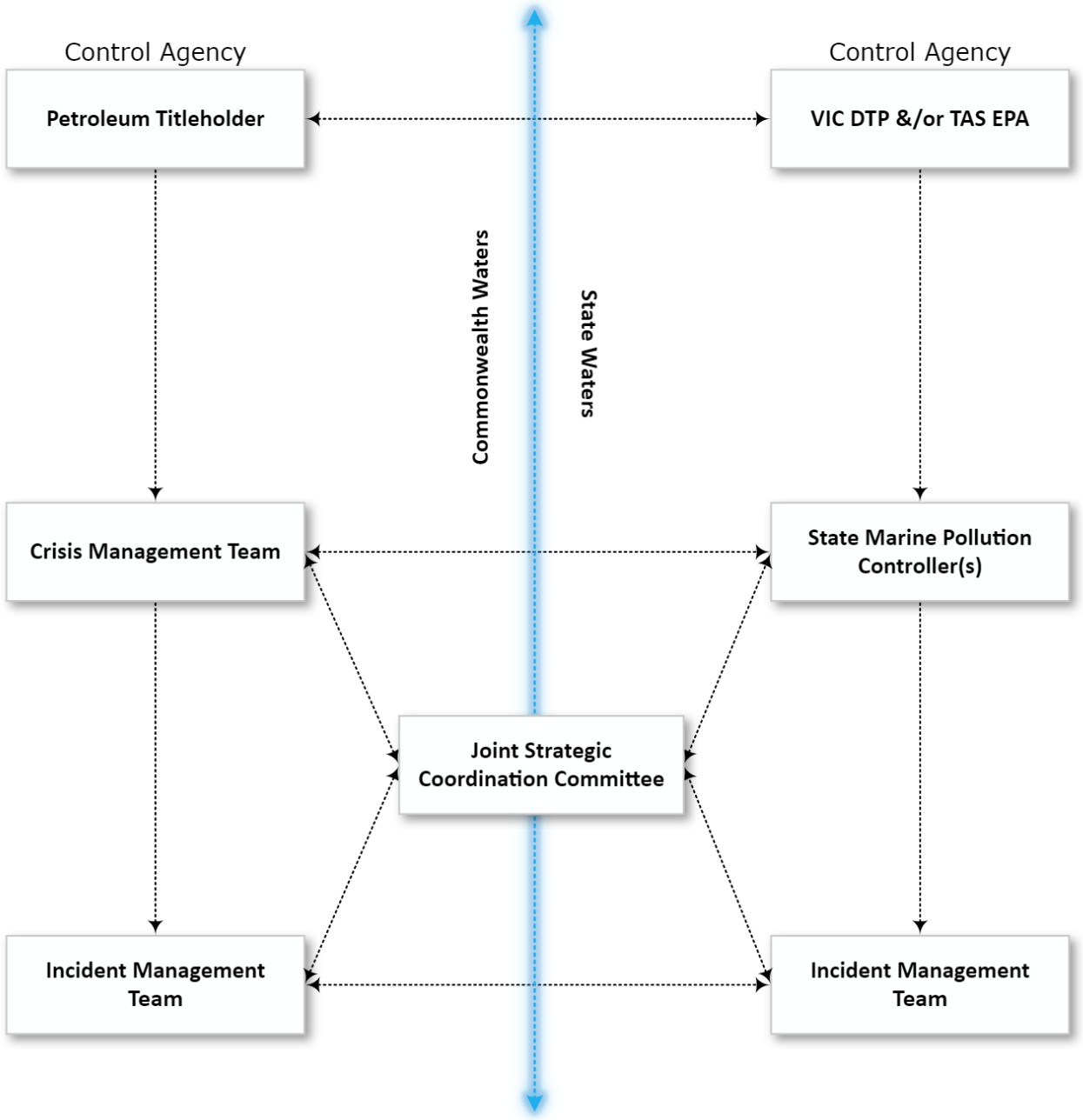


Figure 2-5: Proposed cross jurisdictional control and coordination structure.

Figure 2-5 is adapted from the Offshore Petroleum Industry Guidance Note – Marine Oil Pollution: Response and Consultation Arrangements, 2020.

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3. Response Activation

The following section details the actions that ConocoPhillips Australia will undertake in the event of hydrocarbon spill resulting from the Otway Exploration Drilling Program. Figure 3-1 provides a spill response incident flowchart to guide response personnel.

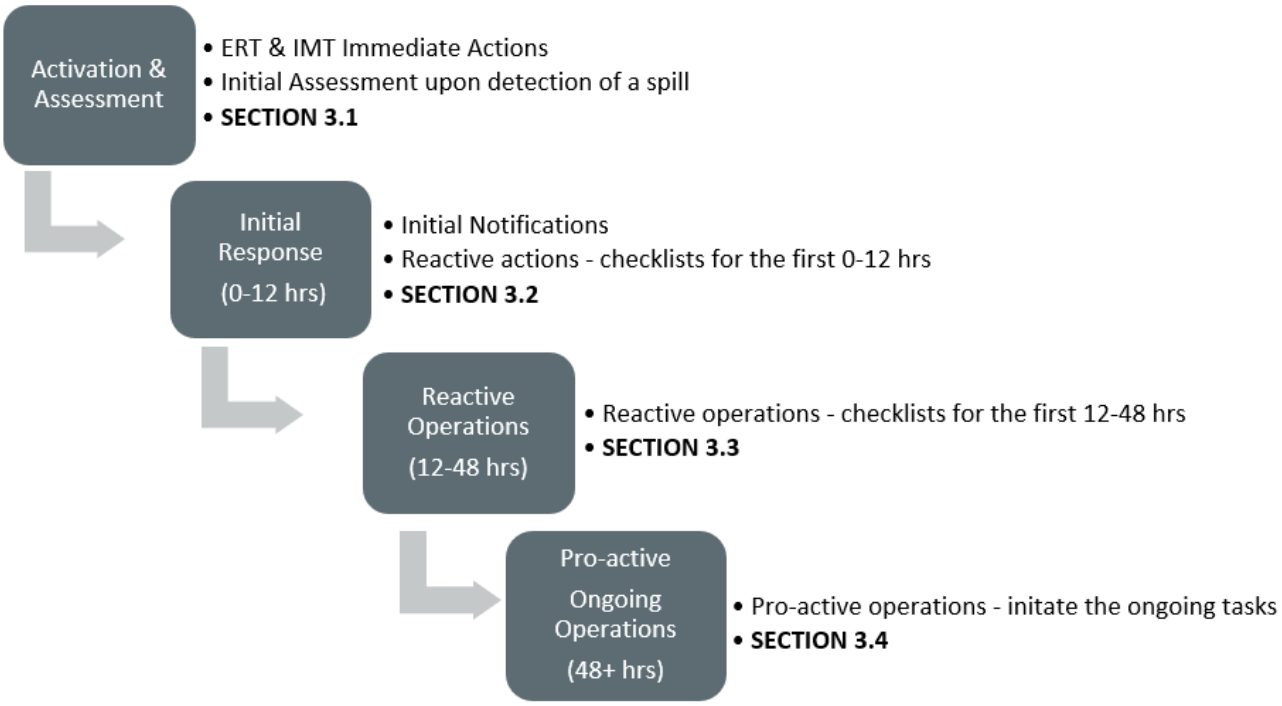


Figure 3-1: Spill response incident flowchart

Once initiated, spill response operations should continue until termination end points and environmental performance objectives are reached for each response strategy.

3.1. Activation and Assessment

3.1.1. Activation – Emergency Response and Incident Management Teams

Upon detection of a spill, the Offshore Installation Manager (OIM) or the Vessel Master (VM) will undertake the following actions:

- Begin a risk assessment in order to determine (and then execute) safety mitigations
- Determine the size, bearing/trajectory and fate (weathering) of the spill
- Judge the potential environmental impacts and the appropriate actions necessary to reduce those impacts
- Execute any available source control options/first-strike response actions, and
- Notify the ConocoPhillips Australia (Brisbane-based) duty Incident Commander (IC) of the incident await further instructions as to the appropriate actions to take.

The following checklist (Table 3-1) outlines the immediate actions to be completed.

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Table 3-1: OIM/VM immediate actions

Who	What	Minimum time to implement	✓/x
Observer of Spill	Report the spill to the Offshore Installation Manager (OIM) or Vessel Master (VM).	ASAP	☐
OIM/VM	Secure operations, assess and report damage. Isolate spill source if it is safe to do so.	ASAP	☐
OIM/VM	Ensure that all personnel are accounted for.	ASAP	☐
OIM/VM	Conduct a hazard assessment to determine the potential for fire, explosion, and hazardous/toxic vapours as well as to define the personal protective equipment (PPE) needed by responders.	ASAP	☐
OIM/VM	Implement spill mitigation measures to prevent further oil from entering the water, providing it is safe to do so. Activate the Emergency Response Team (ERT) as required.	ASAP	☐
OIM/VM	OIM/VM to initiate upward internal communications to the Duty Incident Commander. Observe and include the following information in the brief: • Number of injuries. • Note ongoing immediate hazards to life (such as risk of • fire or explosion). • Description of incident. • Location of the incident. • Status of source. • Time of incident. • People and assets involved in the incident. • Current field objectives/actions. • Details of support required from COP IMT.	ASAP	☐
OIM/VM	Observe and report on weather and sea states, including: • Current/tide-stream speed, direction and period • Wind speed, direction and period • Wave height and direction • Swell height and direction.	ASAP	☐
OIM/VM	Observe and determine the spill trajectory (manual plotting), noting the speed and direction of the spill.	ASAP	☐
OIM/VM	Observe and determine the likely spill type and volume: Is the source contained, ongoing, isolated or stopped? Provide a visual description of the slick (e.g. is it breaking up, floating, sinking, etc.) What type of spill is it (MDO, Gas Condensate)? Calculate/estimate the spill volume (refer to OSMP O1 – Oil Spill Surveillance).	ASAP	☐
OIM/VM	Observe and note any immediate sensitivities in the area at risk from the spill. Note the presence of people, environmental sensitives (e.g. fauna, reef, etc.).	ASAP	☐
OIM/VM	Request helicopter overflight and commence regular surveillance of the spill. Evaluate spill weathering.	ASAP	☐
OIM/VM	Remain available to update the Offshore Incident Management Team.	Ongoing	☐
OIM/VM	Evaluate the incident and determine the incident classification/level based on the below national plan levels (Section 3.2.1). Confirm this level with the on-call/duty Incident Commander.	ASAP	☐
OIM/VM	Report the incident to NOPSEMA (as per Section 3.2.1).	ASAP and within 2hrs	☐

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Once the Duty IC has been notified of the spill, go to Table 3-2: IMT Immediate Actions

Table 3-2: Incident Management Team (IMT) immediate actions

Who	What	Minimum time to implement	✓/x
IC	Establish communications with the Offshore Installation Manager (OIM) or Vessel Master (VM) to obtain situational awareness briefing and determine the next steps. Confirm the following details with the field-based team: • Incident details – what happened? • What are the current field operations? • What are the immediate incident objectives and priorities? • What support is required from the COP IMT in order to execute the immediate objectives?	ASAP	☐
IC	Activate the COP IMT and then: • Provide an initial incident briefing to the IMT. • Commence the incident action-planning process. • Commence the size-up of the incident. • Establish incident response aim and objectives and offer support to the affected facility. • Begin working to meet incident and oil spill response objectives.	< 60 mins	☐
IC	Notify the Crisis Manager of the incident and request Crisis Management Team (CMT) support as required.	ASAP	☐
IC	Notify Health, Safety and Environment (HSE), Governance and External Affairs (GEA) and Security of the incident.	ASAP	☐
IC	In conjunction with the Planning Section Chief (PSC), Environmental Unit Lead (EUL) and the HSE and Security team, determine and confirm the appropriate response level. Use the *Response Level Assessment Table 3-3* below to drive this process.	4 hours	☐
IC, PSC and OSC	In conjunction with the PCS and Operations Section Chief (OSC) determine the response required of COP: • Stand down – no spill/no oil left. • Level One – monitoring of site-based response until completion. • Level Two or Three – significant field and IMT escalation with significant additional resources required.	5 hours	☐
Once Activation and Initial Actions are completed, move on to Section 3.2.1.			

3.1.2. Spill Classification - Response Level Assessment

Under the NatPlan (AMSA, 2020), marine hydrocarbon spills and their response requirements are categorised into three levels, based on a combination of factors:

- The known or inferred spill size, scale and complexity
- The likely fate of the spill
- Environmental, socio-economic and cultural values likely to be impacted, and
- The available resourcing levels as needed to mitigate consequences, and level of support/escalation required.

The NatPlan identifies three levels of incidents as follows:

- **Level 1** – Incidents are generally able to be resolved through the application of local or initial resources only (e.g. first-strike capacity)
- **Level 2** – Incidents are more complex in size, duration, resource management and risk and may require deployment of jurisdiction resources beyond the initial response, and

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- **Level 3** – Incidents are generally characterised by a degree of complexity that requires the Incident Controller to delegate all incident management functions to focus on strategic leadership and response coordination and may be supported by national and international resources.

In the event of a spill occurring where effective response is considered beyond the immediate response capabilities (i.e. a spill above Level 1), the response will be escalated immediately to the next level.

Table 3-3 summarises the hydrocarbon spill level response models adopted for this OPEP, as per NatPlan Guidance. On the basis of the information gathered by the ERT/IMT, a spill level is to be determined using the following indicators defined in Table 3-3.

Table 3-3: Response level assessment

Criteria	Level One Indicator	Level Two Indicator	Level Three Indicator
Location	Incident area only	One or two incident areas	Multiple incident areas
Complexity	Response is managed by control agency IMT	Medium	High
Duration	Less than or a single shift	Multiple shifts	Protracted response
Spill status	Little or no potential for escalation	Escalation required	Declared state of emergency/disaster
Impact	Little or no impact	Medium impact	Major impact
Resources	Single or limited multi-agency response Locally sourced resources	Multi-agency response Local and State sourced resources	Multi-agency response Local, State and Nationally sourced resources

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3.2. Initial Response (0-12hrs)

3.2.1. Notifications

Once a spill has occurred, internal and regulatory notifications are to be made in accordance with the following requirements outlined in Table 3-4 for vessel spills (MDO) and Table 3-5 for a LOWC event.

Table 3-4: Notification requirements for a vessel spill (MDO)

MDO Spill – Vessel Operations				
From	**To**	**Timing**	**Complete**	**Notes**
Vessel Master/ Client Rep	COP Duty Manager Ph: As per IMT Duty Roster	ASAP	☐	
Vessel Master	AMSA • Verbally via phone Ph: +61 02 6230 6811 or 1800 641 792 • Written Web: https://amsa-forms.nogginoca.com/public/	• Verbally: Immediately • Written POLREP: ASAP (Appendix 7) • SITREPs (Appendix 6): As Requested	☐	
Vessel Master	State and Port Authorities (if in or threatening state waters) **VICTORIA** • Port of Portland (SA Border to Cape Otway) Ph: +61 3 5525 2450 • Ports Victoria (Cape Otway to Southeast Point of Wilsons Promontory) Ph: +61 3 9644 9745 • Gippsland Ports (Southeast Point of Wilsons Promontory to NSW Border) Ph: +61 408 185 591 • Port of Hastings Duty Officer Ph: +61 437 645 026 • Level 2/3 Incidents to Vic DoT State Duty Officer Ph: +61 409 858 715 **TASMANIA** • Tasmania EPA (TasEPA) Ph: 1800 005 171	ASAP	☐	
COP Duty Officer	COP IMT and CMT via the Emergency Call Centre Ph: +61 8 6324 0341	If required	☐	
IMT IC or Delegate	AMOSC Duty Officer Ph: +61 438 379 892	As soon as Practical	☐	Provide initial SITREP and resources required (App. 8). Note: CAA must confirm activation of AMOSC and execute a response Contract Note.
IMT IC or Delegate	NOPSEMA Ph: 1300 674 472 Email: submissions@nopsema.gov.au	• < 2hrs verbally • Form FM0831 within 3 days	☐	Form available at https://nopsema.gov.au/offshore-industry/report-incident
IMT IC or Delegate	AMOSC Duty Officer	If required	☐	Activation of Oil Spill Trajectory Modelling (OSTM)
IMT IC or Delegate	AMOSC Duty Officer	If required	☐	Activation of Satellite Imagery
IMT IC or Delegate	The DNP – where a spill occurs within an Australian Marine Park (AMP), or is likely to affect any AMP.	Director of National Parks – 0419 293 465 (24hr Duty Officer)	☐	Notification to include: titleholder details; time and location of incident; proposed response arrangements and locations; contact details for response.

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Table 3-5: Notification requirements for a LOWC event

Gas Condensate (LOWC) Spill – Offshore Drilling Activity				
From	**To**	**Timing**	**Complete**	**Notes**
OIM/Client Rep	COP Duty Officer Ph: As per IMT Duty Roster	ASAP	☐	
COP Duty Officer	COP IMT and CMT via the Emergency Call Centre Ph: +61 8 6324 0341	ASAP	☐	Activation of IMT and CMT to support LOWC
IMT IC or Delegate	AMOSC Duty Officer Ph: +61 438 379 892	As soon as Practical	☐	Activation of AMOSC to support CoP operations • Moblisation of SMV options (Aerial Observation, Tracking Buoys, OSTM) • Mobilisation of spill response equipment (Shoreline Protection & Deflection, Shoreline Clean-up & Oiled Wildlife Response). • Moblisation of advisors into the IMT
IMT IC or Delegate	NOPSEMA Ph: 1300 674 472 Email: submissions@nopsema.gov.au	• < 2hrs verbally • Form FM0831 within 3 days	☐	Form available at https://nopsema.gov.au/offshore-industry/report-incident
IMT IC or Delegate	State and Port Authorities (if in or threatening state waters) **VICTORIA** • Vic DTP State Duty Officer Ph: +61 409 858 715 **TASMAINIA** • Tasmania EPA (TasEPA) Ph: 1800 005 171	As soon as Identified	☐	If threatening Port Waters, contact relevant Port Authorities • Port of Portland (SA Border to Cape Otway) Ph: +61 3 5525 2450 • Ports Victoria (Cape Otway to Southeast Point of Wilsons Promontory) Ph: +61 3 9644 9745 • Gippsland Ports (Southeast Point of Wilsons Promontory to NSW Border) Ph: +61 408 185 591
IMT IC or Delegate	Adjacent Titleholders	As soon as practicable	☐	
Planning Section Chief	Australian Hydrographic Service Ph: +61 2 4223 6500 Email: datacentre@hydro.gov.au	As soon as practicable	☐	Advise of affected areas for safety of navigation for mariners.
IMT IC or Delegate	AMSA Ph: +61 02 6230 6811	• Verbally: <2hrs	☐	AMSA notified of marine pollution incident and if NatPlan resources are required by titleholder.
Planning Section Chief	Victorian Department of Energy, Environment and Climate Action (DEECA) Wildlife Emergencies State Duty Officer Ph: 1300 114 828 Email: Sccvic.sdo.delwpwildlife@scc.vic.gov.au	• As soon as wildlife impact predicted or identified or in VIC waters	☐	
Planning Section Chief	The DNP – where a spill occurs within an Australian Marine Park (AMP), or is likely to affect any AMP. The DNP may request daily/weekly Situation Reports, depending on the scale and severity of the incident.	• Director of National Parks – 0419 293 465 (24hr Duty Officer)	☐	Notification to include: titleholder details; time and location of incident; proposed response arrangements and locations; contact details for response.

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3.2.2. Reactive Actions – Level 1 Checklists for 0-12 hrs

The reactive actions relevant to the first 12 hours of a Level 1 incident are provided in Table 3-6. The responsible IMT function is listed – see description below for functional role clarification.

Table 3-6: Reactive Actions: Level 1 - 0-12-hour actions

Who	What	Minimum time to implement	✓/x
IC	Ensure all necessary regulatory notifications have been made.	12 hours	☐
IC	Commence the planning cycle (the 'stem' of the planning 'P'): Establish incident aim and objectives Determine appropriate initial strategies and tactics to achieve objectives.	ASAP – <2 hours	☐
OPS	If the source is not controlled, establish a Source Control Branch to develop and implement the Source Control Plan.	ASAP	☐
OPS	Undertake aerial surveillance: • Deploy surveillance by contracted aircraft. • Initiate mobilisation of a trained aerial observer – COP or AMOSC. • Obtain photographs or video footage. • Obtain completed aerial observer's report and pass to the PSC/SITL.	ASAP, then 2x daily	☐
OPS	Deploy a regular watch of the affected asset(s)/vessel – confirm heading/changes to the situation.	ASAP then by reporting exception.	☐
LOG	Confirm the location of aerial and marine assets currently contracted to COP.	4 hours	☐
PLA	Initiate specific elements of OM01 of OSMP, including tasks below (Table 4-13)	ASAP	☐
PLA	Monitor and predict weather and sea states: Consult meteorology services to determine water current and wind speed data, either from http://www.bom.gov.au or http://www.marineweather.net.au	4 hours	☐
PLA	Conduct a manual forecast of the spill trajectory: Determine the direction of the spill. Determine if the spill is likely to cross into state waters, impact shorelines and/or impact other sensitivities.	4 hours	☐
PLA	Activate third-party trajectory modelling of the spill trajectory: Organise oil-spill trajectory modelling via AMOSC/RPS (if not already done – see Table 3-5)	4 hours	☐
SIT	Establish a common operating picture – Display overflight, OSTM/manual vectoring data, spill location, assets deployed to spill site	4 hours	☐
PLA	Prepare and disseminate SITREPs (Appendix 6) as more information becomes available. (Frequency to be dictated by IC)	Ongoing	☐
PLA	Identify potential exposed environmental sensitivities based on spill trajectory, consult the NEBA (Section 2.6.1), and develop an Incident Action Plan of spill response strategies, including a spill-specific NEBA.	12 hours	☐
Once these actions are complete, move to Section 3.3 of this plan.			

IC – Incident Commander; OPS- Operations Section; LOG – Logistics Section; PLA - Planning Section; SIT – Situation Unit

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3.2.3. Reactive Actions – Level 2/3 Checklists for 0-12 hrs

The reactive actions relevant to the first 12 hours of a Level 2/3 incident are provided in Table 3-7. The responsible IMT function is listed – see description below for functional role clarification.

Table 3-7: Reactive Actions: Level 2/3 – 0-12 hours actions

Who	What	Minimum time to implement	✓/x
IC	Seek alignment on incident priorities from the CMT.	ASAP	☐
IC	Confirm all necessary regulatory notifications have been made.	<2 hours	☐
IC	Commence the planning cycle (the 'stem' of the planning 'P'): Establish the incident response aim and objectives. Determine appropriate strategies and tactics to achieve objectives.	ASAP – <6 hours	☐
IC	Establish full, Brisbane-based COP IMT.	<2 hours	☐
IC	Establish a line of communications with the State IMT and exchange Liaison Officers.	<2 hours	☐
IC	Establish a line of communication with AMSA, NOPSEMA and OPICC. Facilitate integration o of relevant liaison officers.	<2 hours	☐
IC	Initiate the activation of the ConocoPhillips GIMAT.	<24 hours	☐
OPS	If the source is not controlled, establish a Source Control Branch to develop and implement the Source Control Emergency Response Plan (SCERP).	ASAP	☐
OPS	Undertake aerial surveillance: • Initiate aerial surveillance using contracted aircraft. • Initiate the mobilisation of a trained aerial observer – COP or AMOSC. • Obtain photographs and video footage of the incident. • Obtain a completed aerial observer's report and pass to the PSC/SITL.	ASAP, then twice daily	☐
OPS	Deploy a twice-daily vessel observation - confirm heading/changes to the situation.	ASAP then by reporting exceptions.	☐
OPS	On the advice of the Drilling Engineer/Source Control Branch, mobilise the Subsea First Response Toolkit (SFRT) via AMOSC.	4 hours	☐
LOG	Confirm the location of aerial and marine assets currently contracted to COP. Confirm the location and availability of vessels of opportunity in VIC/TAS.	<3 hours	☐
LOG	Request that 3 x AMOSC Technical Advisors come to the site (IMT) and that 3 x AMOSC Operations Officers are deployed to support field operations (Aviation/ Shoreline). Request that AMOSC undertake the call-out of CG resources. Request the mobilisation of additional satellite tracking buoys (if required). Discuss potential equipment and service needs (spill-type specific) with AMOSC to support shoreline response operations.	<3 hours	☐
LOG	Notify the Aviation FOB of the need to conduct spill response operations and prepare area.	<6 hours	☐
LOG	Notify waste contractors to prepare for potential liquid, and solid wastes – specific amounts and types to be determined.	<12 hours	☐
PLA	Initiate specific elements of OM01 of OSMP, including the tasks below.		
PLA	Monitor and predict weather and sea states: Consult meteorology services to determine water current and wind speed data, either from http://www.bom.gov.au or http://www.marineweather.net.au	4 hours	☐
PLA	Conduct ADIOS2 forecasting of oil weathering and conduct manual vectoring of the spill trajectory, as follows: • Determine the direction of the spill. • Determine if the spill is likely to cross into state waters or shorelines or if it might impact other sensitivities.	4 hours	☐
PLA	Activate third-party trajectory modelling of the spill trajectory:	4 hours	☐

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Who	What	Minimum time to implement	✓/x
	Organise oil-spill trajectory modelling via AMOSC/RPS (if not already done – see Table 3-5)		
PLA	Establish a common operating picture – Display overflight, OSTM/manual vectoring data, spill location, assets deployed to spill site	4 hours	☐
PLA	Prepare and disseminate SITREPs (Appendix 6) as more information becomes available. (Frequency to be dictated by IC)	Ongoing	☐
PLA	Identify potential exposed environmental sensitivities based on spill trajectory, consult the NEBA (Section 2.6.1), and develop an Incident Action Plan of spill response strategies, including a spill-specific NEBA (ref OPEP 7.5).	ASAP	☐
EU	Activate OSMP modules OM01, OM02, OM03, OM04, OM05 and OM06, as relevant to the incident (Table 4-13).	ASAP	☐
EU	Liaise with the relevant state government Environment & Scientific Support Coordinator if it is anticipated that state waters or shorelines will be impacted.	6 hours	
EU	Assess the need for and coordinate the development of specific plans, including the following: • Wildlife Management Plan • SCAT Plan Monitor the environmental consequences of any actions. Participate in the development of plans for the next operational period.	12 hours	☐
Once these actions are complete, move to Section 3.3 of this plan.			

IC – Incident Commander; OPS- Operations Section; LOG – Logistics Section; PLA - Planning Section; EU – Environment Unit

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3.3. Reactive Operations (12-48 hrs)

3.3.1. Emergency Management Structure

Following the immediate action and assessment process, ConocoPhillips Australia will establish an Emergency Management structure proportionate to the scale of the incident, in line with Figure 3-2 as per the ConocoPhillips Australia Business Unit (ABU) Crisis and Incident Management Plan (CIMP).

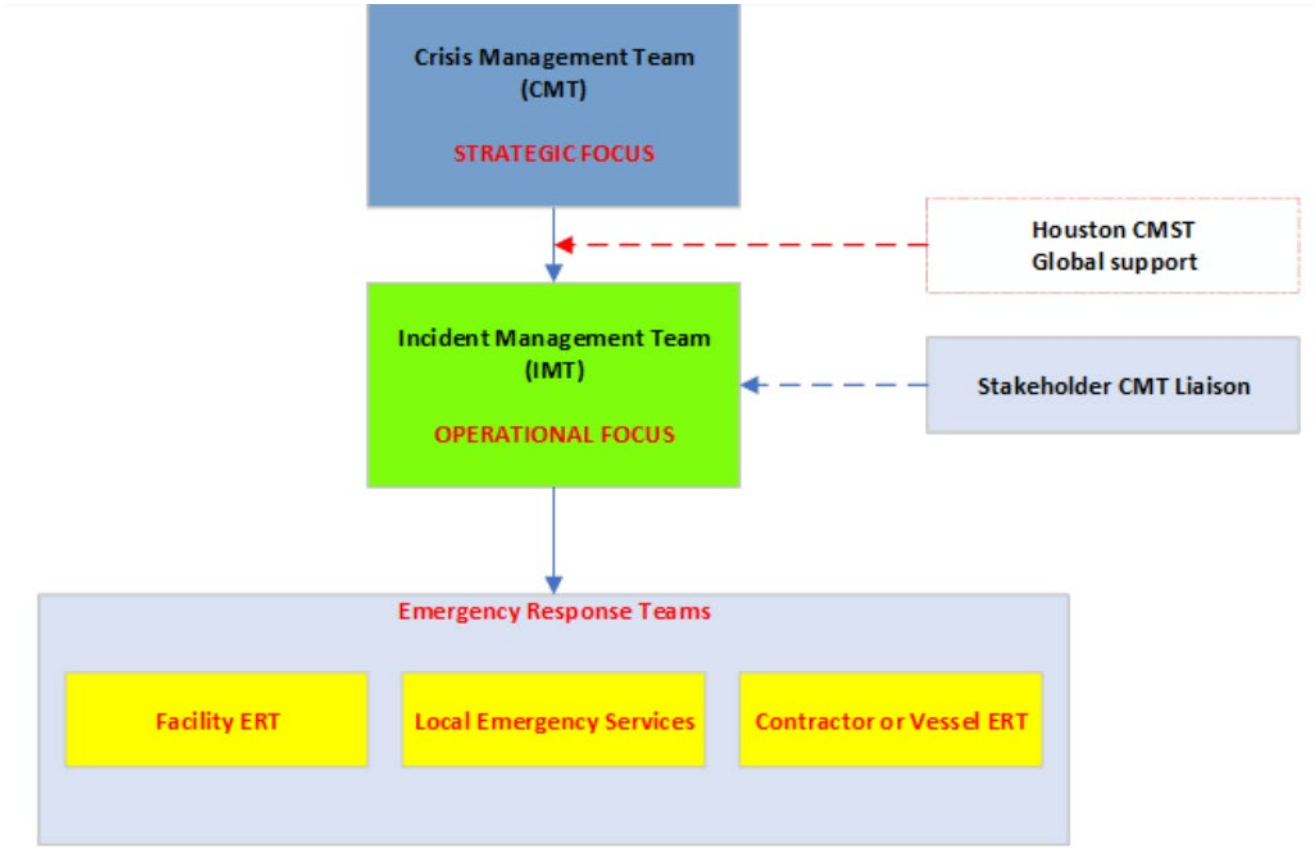


Figure 3-2: Crisis, incident and emergency management interface arrangements

The emergency management structure includes the Crisis Management Team (CMT), Incident Management Team (IMT) and Emergency Response Teams (ERT). Further details are provided below.

3.3.2. Crisis Management Team (CMT)

The CMT (Figure 3-6), under the leadership of the Crisis Manager, is responsible for managing the consequences of an incident for ConocoPhillips Australia at an enterprise level and involves the strategic, business interruption impacts, legal, reputation and the highest-level organisational liaison aspects of a crisis event.

This involves developing an integrated strategic management approach to manage the consequences of the incident for:

- Public Information and stakeholder relationships directly related to our operating Facilities
- Business continuity impacts, and
- Legal considerations.

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ABU CMT primary objectives are to:

- Consider the business continuity, strategic, legal and public image consequences of the incident for the ABU
- Attend to public media issues relating to the operating facilities
- Develop a Crisis Management plan to coordinate all actions
- Communicate with internal and external stakeholders that relate directly to ABU operations
- Comply with applicable regulatory requirements, and
- Notify ConocoPhillips Australia Crisis Management and Emergency Response – Houston as appropriate.

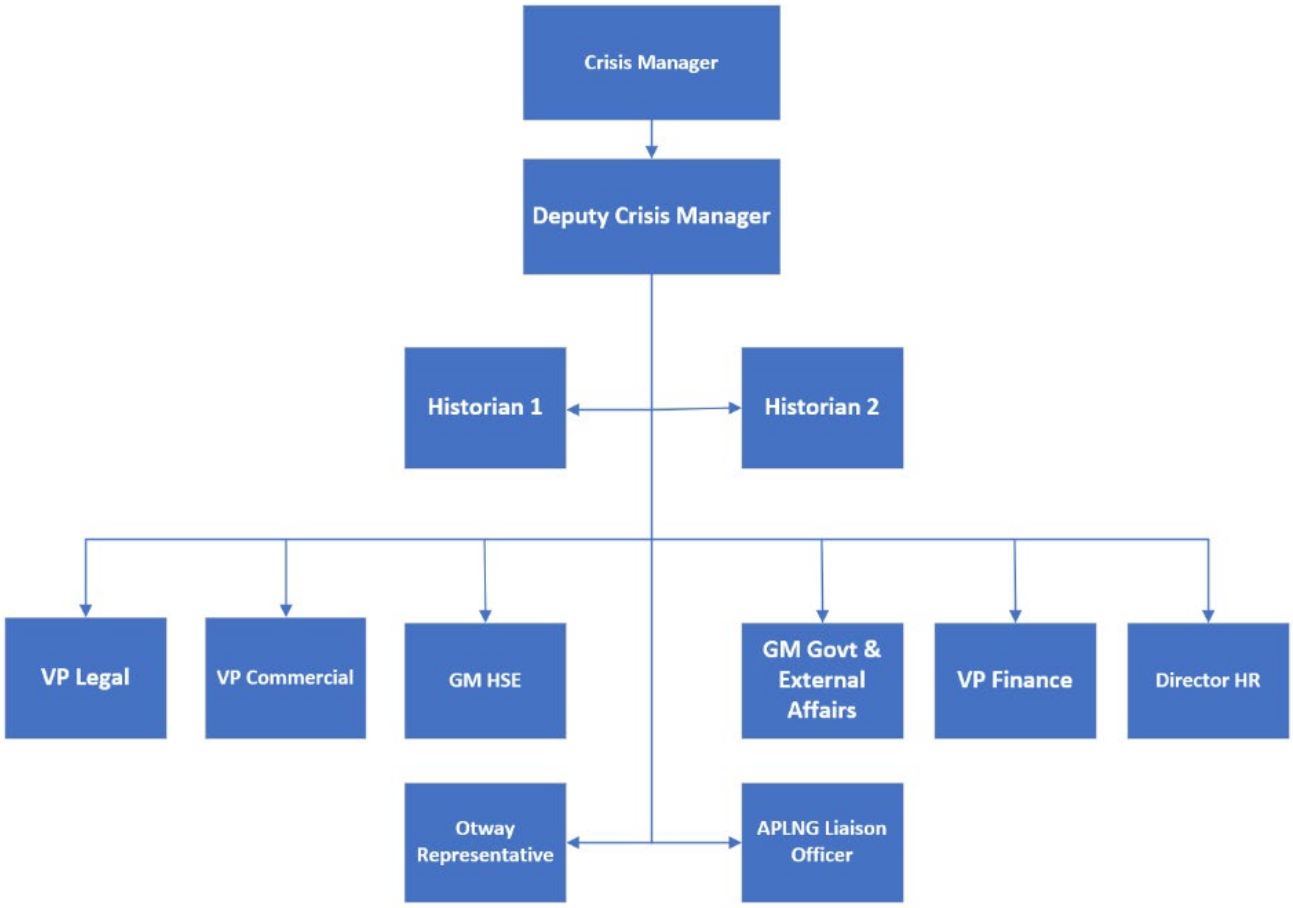


Figure 3-3: CMT structure

3.3.3. Incident Management Team (IMT)

ConocoPhillips Australia will mobilise an appropriate IMT guided by Figure 3-4 and Figure 3-5. The IMT, under the leadership of the Incident Commander (IC) provides support via technical expertise, the development of operational strategies and plans, and provision of resourcing for these operations.

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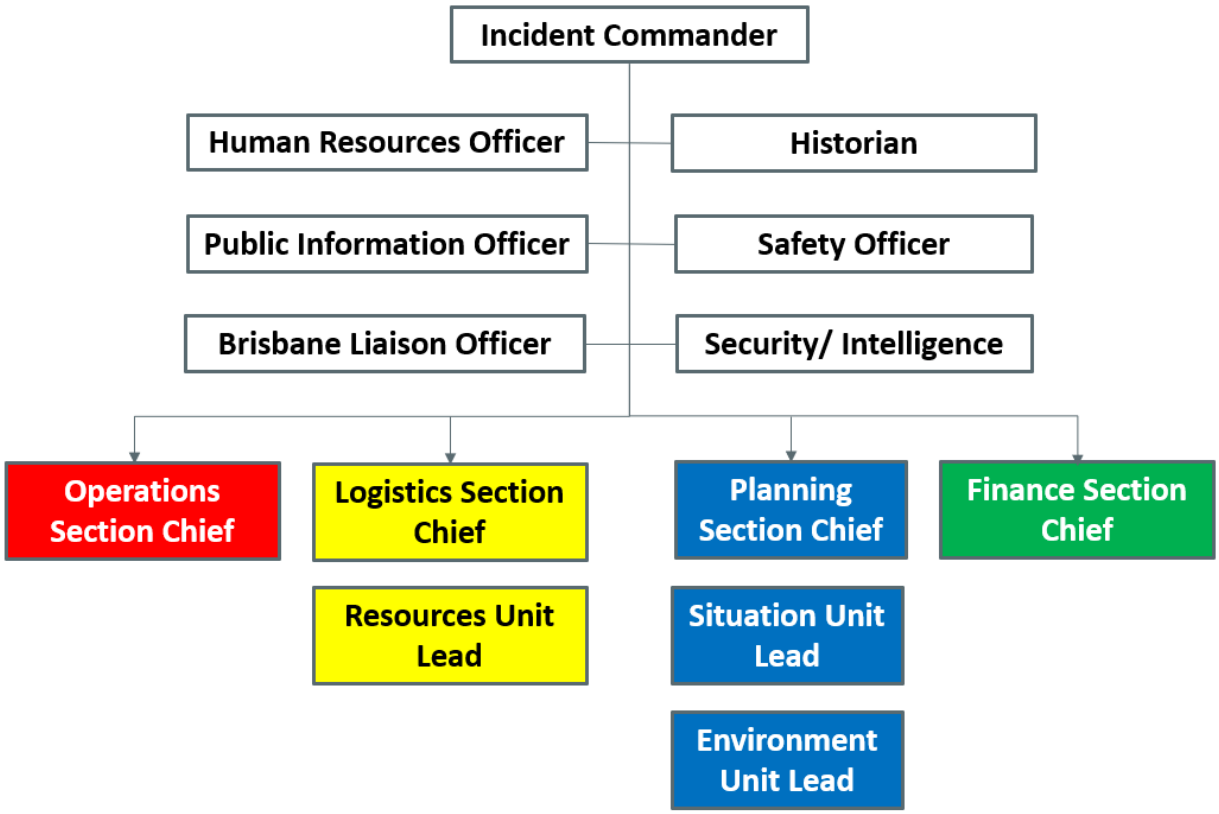


Figure 3-4: IMT structure – localised response activities.

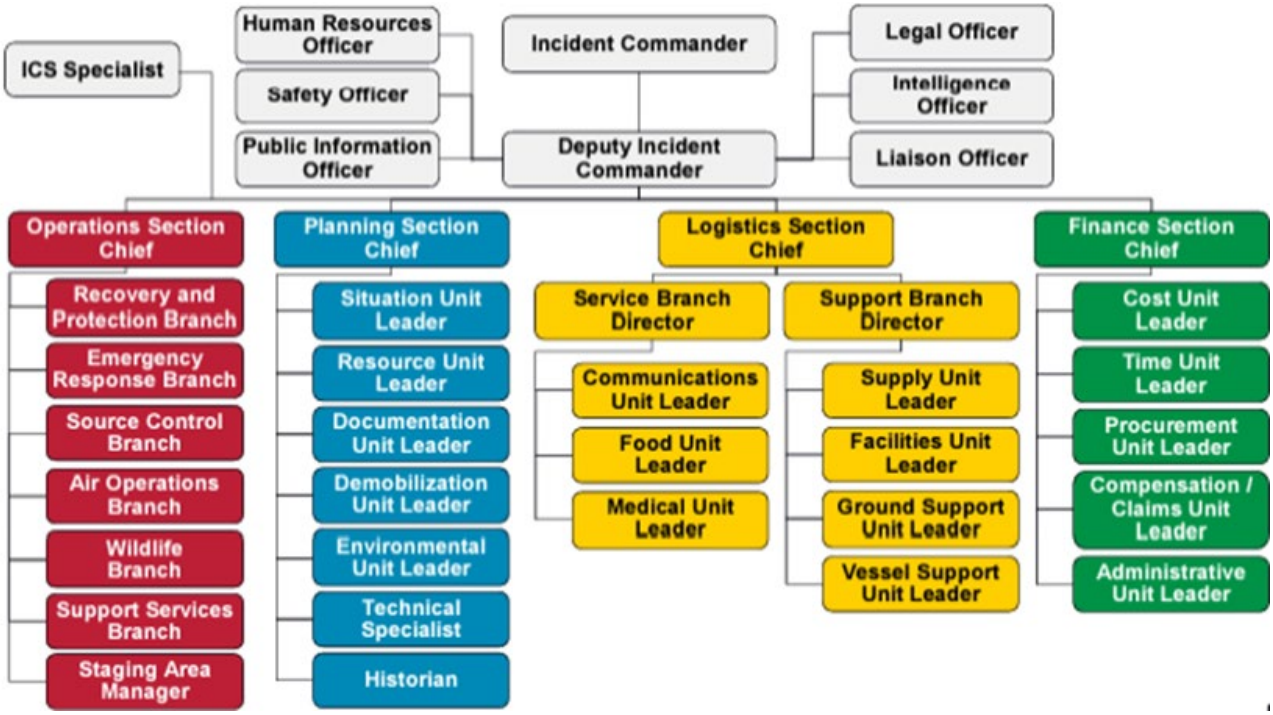


Figure 3-5: Expanded IMT structure

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3.3.4. Additional Organisational Support

Further support for managing emergency events, the Crisis Manager can request assistance via:

- Crisis Management Support Team (CMST), and
- Global Incident Management Assist Team (GIMAT) - a specialist incident management team. Members are located globally and can be readily mobilised to support a business unit IMT that has exceeded its capacity to manage effectively.

3.4. Roles and Responsibilities

ConocoPhillips Australia's IMT Functional Roles and overall outputs/outcomes are outlined in Table 3-8.

IMT personnel should use their relevant role checklists throughout a response. These are available in the ABU Crisis and Incident Management Plan (ABUE-450-HS-N05-C-00119) and ConocoPhillips Incident Management Handbook.

Table 3-8: IMT roles and responsibilities

Function	Sub/Function	Outputs	Outcomes
Incident Commander (IC)	**Control**	Safe and efficient response structure and organisation.	A response is put in place that meets the requirements of the OPEP. People and processes in place that meets the above.
	Safety	Draft the development of a plan that assesses and manages the safety risk of the response.	Safety risks assessed and mitigation plans/processes in place
	Liaison Officers	External/pubic/stakeholder affairs are managed.	Key stakeholders (government, regulatory and community) are informed of the incident and have their concerns acknowledged and addressed by the response organisation.
Planning (PLA)	**Planning**	Drive the planning process that develops the IAP. Tracking resources. Provide Intelligence/Enviro function.	Response planning and 'thinking' that fits best the scenario (oil type, weather, fates, locations, sensitivities), to most effectively cleans up oil.
	Environmental Unit	Oil Spill Preparedness and Response (OSPR) strategies are tactically implemented consistent with good global practice, accounting for the net benefit of each strategy. Assessment of environmental risk.	Daily NEBA analysis. Analysis of the resources at risk. Deployment of OSPR SME and technical advice into the EMT.
	Situation Unit	Development and maintenance of the Common Operating Picture for the IMT (including trajectory/forecasting).	Maintaining the Common Operating Picture to maintain situational awareness. Maintenance and operation of GIS capability
Operations (OPS)		Run the operations in the field. Provide technical input to the production of the next operational period IAP. Draft the daily operational orders for each field team. Provide tech input to the safety plans.	Run the current operations in the field – the execution of the IAP for that operational period.
Logistics (LOG)		Acquire resources and materials that match the operations. Ensure resources are serviced and maintained to required specifications.	Fit for purpose resources are where they need to be at the right time.
Finance (FIN)		Tracks all costs and provides financial oversight consistent with the control agency requirements.	Financial and administrative management process in place for the response.

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3.5. Reactive Operations

Once the IMT is established, Section 4 – Response Strategies should be used to assist each IMT functional area to execute tasks in support of the identified spill response strategies.

OPEP section references for each response strategy are outlined in Table 3-9.

Table 3-9: Response strategy – OPEP section reference

Response Strategy	Relevant Section
Source Control	Section 4.1
Surveillance, Modelling & Visualisation (SMV)	Section 4.2
Shoreline Protection & Deflection (P&D)	Section 4.3
Shoreline Clean-up	Section 4.4
Oiled Wildlife Response	Section 4.5
Waste Management	Section 4.6
Operational & Scientific Monitoring (OSM)	Section 4.7

The goal of the IMT is to implement reasonable and proportionate oil spill response strategies until such a time as the oil spill response may be terminated (Section 4.8).

This can be achieved by implementing the following response planning process (Figure 3-7):

1. **Reactive Phase: Activate OPEP:**

   Assessing the situation, making informed decisions based on the situation and the oil spill priorities (and strategies) outlined in this OPEP.

2. **Reactive → Pro-active Phase:**

   Developing an Incident Action Plan (IAP) that outlines the objectives, strategies, tactics, tasks and supporting resources that will have the greatest chance of success to meet the overarching aim of the response.

3. **Pro-active Phase:**

   Implementing the IAP. Reviewing the chosen strategies for success, modification and/or continuance. The IAP should be considered the 'project plan' for the oil spill, which should be regularly reviewed and updated, consistent with the situation at the time.

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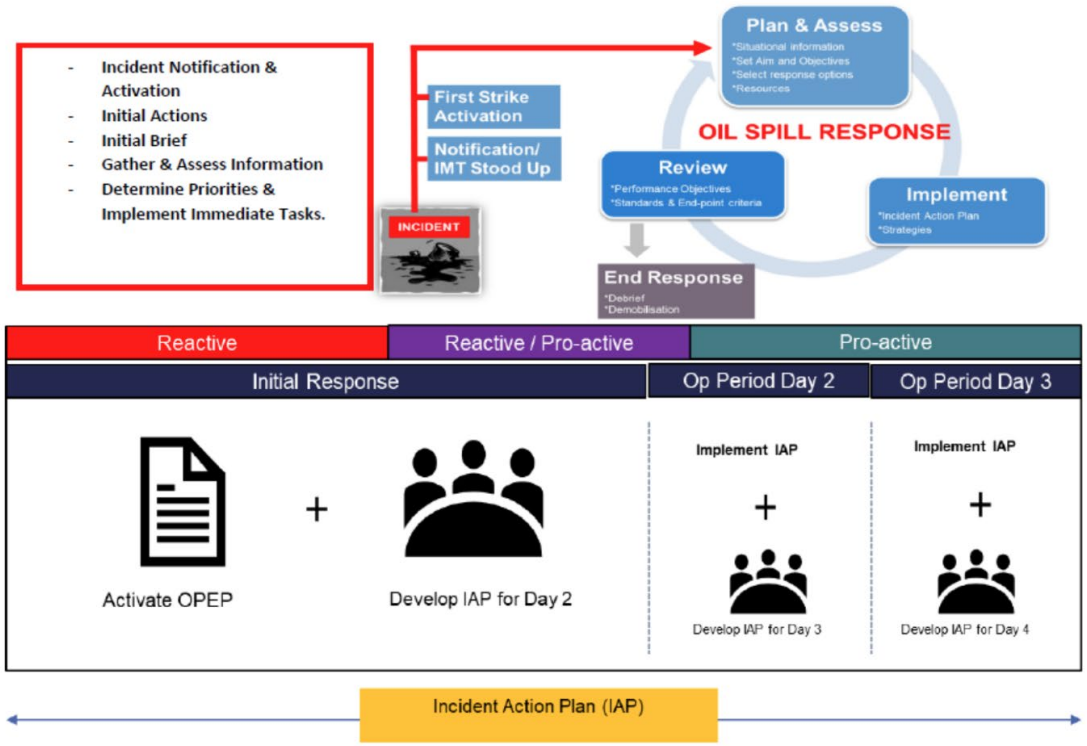


Figure 3-6: AMOSC guide: Action planning process

3.6. Pro-active Ongoing Actions (48+hrs)

3.6.1. Incident Management System (IMS)

ConocoPhillips Australia uses the Incident Control System (ICS) as its internal Incident Management System. ICS is compatible with the Australian Inter-agency Incident Management System (AIIMS) adopted by Australian Government agencies under the National Plan.

The ABU Crisis and Incident Management Plan (ABUE-450-HS-N05-C-00119) and ConocoPhillips Incident Management Handbook should be used in conjunction with this OPEP to implement the Incident Action Plan process.

3.6.2. ICS Operational Planning Cycle

The ICS Operational Planning Cycle should be used to develop and present a safe and effective Incident Action Plan (IAP) for each operational period of an incident.

The response phases of this OPEP are aligned with the phases mapped in Figure 3-8 below.

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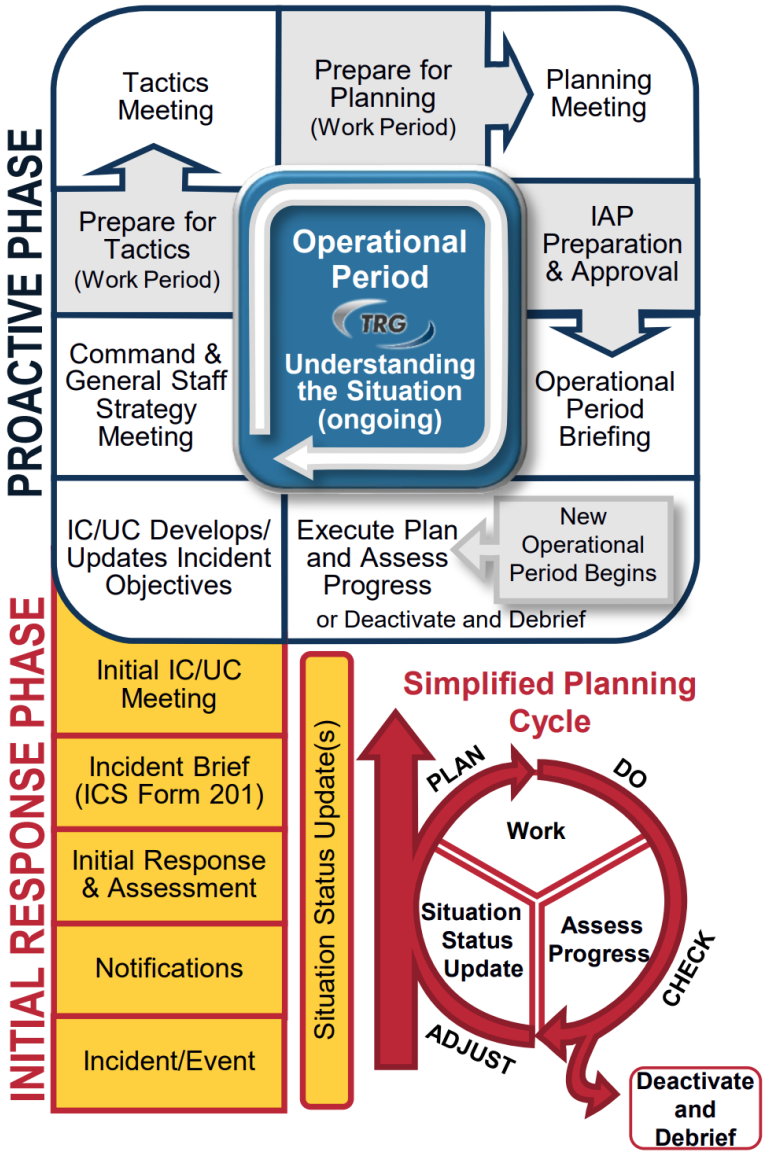


Figure 3-7: COP Incident Management Handbook – Response phases.

For each operational period, the IMT should progress through the pro-active phase of the planning cycle using the daily briefing and meeting schedule outlined in Figure 3-8.

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MEETING / BRIEFING	APPROX TIME-FRAME	FACILITATOR	ATTENDEES
IC/UC Develops/ Updates Incident Objectives	30 Minutes	IC/UC or PSC (If available)	IC/UC, SOFR, OSC, PSC, DOCL, SITL and ICS Specialist (optional)
Command and General Staff/Strategy Meeting	45 Minutes	PSC	IC/UC, SOFR, LOFR, PIO, OSC, FSC, LSC, ISC, SITL, DOCL and ICS Specialist (as needed)
Tactics Meeting	1 Hour	PSC	OSC, LSC, FSC, RESL, SITL, ENVL, SOFR, COML, DOCL, ICS Specialist, and Technical Specialists (as needed)
Planning Meeting	45 Minutes	PSC	IC/UC, SOFR, LOFR, PIO, OSC, FSC, LSC, ISC, SITL, DOCL, RESL, ENVL, COML, THSP and ICS Specialist
Operations Period Briefing	30 Minutes	PSC or OPBD, DIVS, Task Force/Strike Team Leader	IC/UC, SOFR, LOFR, PIO, OSC, FSC, LSC, ISC, OPBD, SITL, DOCL, RESL, ENVL, COML, DIVS, STAM, THSP, Task Force/Strike Team Leaders, field personnel, ICS Specialist and others as appropriate
Execute Plan and Assess Progress	8+ Hours	Unified Command and Section Chiefs	IC/Unified Command, Command Staff, General Staff

Figure 3-8: COP Incident Management Handbook – Pro-active phase daily meeting schedule

3.6.3. Incident Action Plan (IAP)

An IAP will be developed for each operational period. It is derived by an assessment of the situation and outlines the preferred course of action.

The IAP provides;

- A summary of incident details and critical situational information
- Clear direction via the incident priorities, aim and objectives
- Includes a comprehensive listing of the strategies, tactics, tasks and resources, and
- Supporting documentation including safety, communication, waste, operational sub-plans.

The ICS planning process requires a suite of ICS forms to be completed as part of the IAP development. These are available via ConocoPhillips' Incident Action Plan software. Passwords for IAP access are provided to each IMT member.

PLA	The Planning Section Chief is responsible for coordinating the development of the IAP and the Incident Controller is required to approve the IAP prior to dissemination for implementation.

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4. Spill Response Strategies

The following sections describe each of the spill response strategies that ConocoPhillips Australia will put in place where applicable to the incident.

4.1. Source Control

Well intervention, subsea infrastructure repairs and vessel salvage will be used as appropriate to the source of the spill to control and cease the uncontrolled flow of hydrocarbons into the environment.

4.1.1. Response Activities

Depending on the circumstances, the following options will be followed:

Vessel salvage: Vessel source control actions are those in accordance with the vessel's Shipboard Oil Pollution Emergency Plan (SOPEP) or Shipboard Marine Pollution Emergency Plan (SMPEP) relevant to vessel class, and dependent on the scenario type. It may include transfer of the fuel from the damaged tank to another vessel and repairing the tank. ConocoPhillips Australia will provide support to ensure appropriate salvage operations.

Wells/drilling: The proposed strategy for dealing with a source control event is (in order of activation and assuming failure of the previous action):

- Activate the emergency Blow Out Preventer (BOP)
- Activate an Independent Well Control Device (IWCD) if engineering proves feasible (ram that has an independent control system that can be installed within the BOP or between the wellhead and BOP)
- Undertake ROV intervention of the existing BOP if safe to do so
- Drill a relief well

All wells/drilling source control operations will be done in accordance with the Otway Exploration Drilling Program Source Control Emergency Response Plan (SCERP).

Emergency BOP activation involves delivering hydraulic fluid to the BOP stack using an ROV to mitigate any problems that may have arisen with the BOP control system in a loss of well control event.

Independent Well Control Device activation involves the remote activation of specialist pre-installed (prior to activity commencement) well control equipment which sits within or below the BOP ram and uses hydraulic pressure to seal off the well and stop the flow of hydrocarbons.

The drilling of a relief well provides an opportunity to permanently kill and secure the well. A relief well is drilled to intersect the compromised well bore above the blowout location. Weighted drill fluid is pumped down the relief well at high rates to kill the existing well. This requires the mobilisation of another suitable MODU, or safe relocation of the existing MODU, to the relief well location.

4.1.2. Response Resources

A detailed list of the resources required to support the source control strategy outlined above are provided in the SCERP.

4.1.3. Environmental Risk Assessment (Source Control)

An assessment of potential environmental impacts and risks associated with source control techniques is undertaken as part of the Otway Exploration Drilling Program EP Section 7.8.

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4.2. Surveillance, Modelling and Visualisation (SMV)

Surveillance, Modelling and Visualisation (SMV) is a critical tool in the spill response hierarchy. It informs the understanding of the behaviour and trajectory of a hydrocarbon spill, improving the understanding of the potential for environmental harm, and therefore the response strategies that should be put in place. SMV involves:

Surveillance:
- Aerial Surveillance (Spill size estimation, quantification, See Appendices 11 and 12),
- Vessel/marine Surveillance,
- Satellite Tracking Drift Buoys (Spill movement and behaviour).
- Satellite photography

Modelling:
- Manual Vector Calculations (100% current, 3% wind)
- Oil Spill Trajectory Modelling (OSTM) (request form in Appendix 4)
- Oil Fate Prediction (ADIOS or GNOME).

Visualisation:
Refers to presenting the collated information on an electronic platform such as a GIS system (developing a Common Operating Picture), in such a way as to help the IMT and IC make informed decisions surrounding response strategies, daily taskings and resource requirements. Typical status boards are listed in Appendix 5.

4.2.1. Response Activities

Table 4-1 provides key information required to implement the SMV strategy during a response.

An Aviation Plan has been developed (refer Appendix 1) which provides guidance on response tasking, resources and logistics. The Aviation Plan includes a draft Aviation Sub-Plan (Section 6) to support Aviation operations identified in the IAP. The Aviation Sub-Plan will require validation based on situational information relevant to the incident.

Table 4-1: SMV implementation

Surveillance, Modelling and Visualisation (SMV)				
Response Objective	To gather information and validate planning assumptions to adjust response plans as appropriate to the scenario. To quantitatively assess the extent, severity, persistence, and recovery of environmental values and sensitivities affected by the spill.			
Response Tactics	1. Satellite tracking buoys will be deployed to monitor the leading edge of the slick; and deployed in 24-hour intervals to indicate swept pathways. 2. Twice daily aerial surveillance flights (with trained Aerial Observers) will be undertaken to monitor the spreading, location and weathering of the slick. 3. Daily oil spill trajectory modelling will be used to predict the weathering and direction that the oil will spread. 4. Twice daily vessel observation to confirm the extent and spreading of the spill. 5. Activate the OSMP.			
Initiation Criteria	Notification of a spill (MDO, Gas Condensate) to the environment.			
Implementation Plan/ Guidance Document	COP Aviation Plan – See pg. 4 Aerial Surveillance Response Flowchart. COP Aviation Plan – Section 8 IAP Aviation Sub-Plan Operational and Scientific Monitoring Program (OSMP)			
Critical Outputs	Tactic	Level 1	Level 2	Level 3
	Aerial Surveillance	✓	✓	✓
	Oil Spill Trajectory Monitoring (Vectoring + ADIOS)	✓	✓	✓
	Twice daily Oil Spill Trajectory Modelling		✓	✓

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	Continuous monitoring from Oil Spill Tracking Buoys		✓	✓
	Surveillance from: • Aircraft – 2 x daily overflights • Vessels – Opportunistic to sense check aerial observations		✓	✓
	Shoreline surveys (pre-emptive and post impact).		✓	✓
	Operational and Scientific Monitoring programmes		✓	✓
	Satellite imagery runs as requested by the SITU			✓
Resources	As per section 4.2.2 Response Resources (SMV)			
Termination Criteria	Termination occurs when the following criteria is fulfilled: • The spill has ceased, • The spill is no longer visible to human observers. Specifically, a silver/grey sheen as defined by the BAOAC is not observable and 24 hrs has elapsed since the last confirmed observation of surface hydrocarbons, • Modelling results (OM1) do not predict surface exposures at visible levels. Termination criteria to be agreed with relevant Control Agency in State Waters.			

4.2.2. Response Resources

Table 4-2 details the capability required to support am SMV response, including resources required and availability.

Table 4-2: Summary of SMV resources

Resource	Requirement		Availability	Description
Aerial/ Vessel Surveillance	1x Pilot/Aircraft		Aviation contract /Pre-qualification	Suitable aircraft suppliers listed in the Aviation Plan – Section 6.
	1x Trained Aerial Observer		Trained aerial observers via AMOSC	
	1x Vessel		Vessel contract /Pre-qualification	Vessel(s) of Opportunity
Manual Trajectory Calculation (Vectoring + ADIOS)	1x IMT Member	IMT Planning Officer (or equivalent)	Resource available within COP and/or via AMOSC.	
	Current & Wind Data		Bureau of Meteorology Tracking buoy data	Available online
	Fate & behaviour assessment	ADIOS or GNOME	Resource available within COP and/or via AMOSC.	
Oil Spill Trajectory Modelling (OSTM)	Access to RPS via contract to initiate callout on a 24/7 basis.		AMOSC contract with RPS	Access via AMOSC to activate RPS for OSTM within 60 mins. 1st report to be provided within 4 hrs.
Satellite Tracking Buoy	1x Satellite tracking buoy per operational vessel.		Available via AMOSC.	Satellite tracking buoys will be located offshore for the duration of the campaign.
Satellite Imagery	Access to KSAT Satellite Imagery via contract to initiate callout on a 24/7 basis.		AMOSC contract with Kongsberg Satellite Services.	Access via AMOSC to activate KSAT Imagery within 60 mins. Timeframes for imagery will be subject to satellite availability (Appendix 12).

4.2.3. Environmental Risk Assessment (SMV)

An assessment of possible environmental impact and risk associated with SMV techniques is undertaken as part of the Otway Exploration Drilling Program EP Section 7.8.

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4.3. Shoreline Response: Protection and Deflection

Shoreline Protection and Deflection (P&D) involves using specialist equipment (e.g. nearshore booms and skimmers) to divert floating oil away from pre-identified sensitive receptors. Techniques vary depending on the location and type of sensitivity being protected.

4.3.1. Response Activities

Table 4-3 provides key information required to implement the Shoreline P&D strategy during a response.

A Shoreline Plan has been developed (refer Appendix 1) which provides guidance on response tasking, resources and logistics. This document should be used to assist in the development of a Shoreline Response Sub-Plan and used in conjunction with state response plans, e.g., the *Tasmania EPA (February 2023) First Strike Plan King Island*.

Table 4-3: Shoreline protection and deflection implementation

Shoreline Response: Protection and Deflection	
Response Objective	Protection of priority shorelines from contact from surface (floating) hydrocarbons and reduced hydrocarbon loading on shorelines.
Response Tactics	Identify sensitive areas that may benefit from protection and deflection. Deploy protection and deflection booms as per recommendations in the Primary or Secondary TRP's, prior to oil stranding. Daily surveillance of boom sets to ensure optimal protection.
Initiation Criteria	Notification of a spill (MDO, Gas Condensate) to the environment.
Implementation Plan/ Guidance Document	COP Shoreline Plan – See pg. 5 Shoreline Response Flowchart. ConocoPhillips Primary and Secondary Tactical Response Plans for Victoria and King Island. Tasmania EPA (February 2023) First Strike Plan King Island VIC State Maritime Emergencies Subplan Edition 2
Critical Outputs	Modelling predicts the shoreline loading over time. Where shoreline impact is predicted, a Tactical Response Plan (TRP) or Shoreline Treatment Recommendation (STR) will be implemented. TRPs consist of detailed response information and resources required including the equipment and personnel to carry out identified taskings related to the protection of specific sensitivities. Taskings within the TRPs include: • SCAT surveys • Pre-cleaning of shorelines • Protection & deflection booming • Containment and recovery Primary TRP Sites identify sensitivities permanently exposed which will require a definitive response. The TRP identifies specific tasks aimed at minimising environmental impact. Secondary TRP sites identify sites at which exposure is seasonal or irregular and require confirmation of a requirement prior to a response. The TRP identifies sensitivities, site information, likely response strategies and resources that would require validation based on the conditions at the time of the event. Secondary TRP sites that do not require a response would allow additional resources to be directed towards other response activities.
Resources	As per section 4.3.2 Response Resources (P&D)
Termination Criteria	Termination occurs when the following criteria is fulfilled: • The spill has ceased. • The spill is no longer observable to human observers and all oil has impacted shorelines and is unlikely to remobilise. • Slick thickness and characteristics mean that protection/deflection booms will not be effective as determined by the NEBA. • NEBA concludes that that continued activity will not produce any net environmental benefit. Termination criteria is to be agreed with relevant Control Agency in State Waters.

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4.3.2. Response Resources

Table 4-4 provides a summary of shoreline protection and deflection resources that will be required to support a response.

Table 4-4: Summary of shoreline protection and deflection resources

Resource	Requirement	Availability	Description
Trained oil spill response personnel	• Boom deployment personnel. • Skimmer and recovery operations personnel.	Available from AMOSC equipment stockpile, AMSA national plan equipment	Qualified operators are required to effectively setup and maintain boom deployments to effectively protect or deflect hydrocarbons away from sensitive shorelines.
Boom and ancillary equipment	• Shore sealing boom (Beach guardian boom) • Fence boom (Solid floatation boom) • Near shore boom (Zoom boom, GP boom) • Sorbent Boom	Available from AMOSC equipment stockpile, AMSA national plan equipment	Different types of boom will be required to effectively protect different shoreline types. By having access to all styles of boom, an effective protection and deflection strategy can be achieved.
Temporary dyke	• Sandbags • Shovels	Hardware stores, safety stores, SES	In certain areas, it is just as effective as booming, to close off the sensitive area to the incoming surface hydrocarbon. This can be achieved by building a temporary dyke out of sandbags.
Boom deployment vessel	• Shallow draft work vessel • Coxswain	CoP Vessel contractor, Vessels of opportunity, AMOSC Geelong equipment stockpile.	In order to effectively deploy protection and deflection booming systems, a shallow draft work vessel and competent coxswain are required to position and anchor booming sets in place.

4.3.3. Environmental Risk Assessment (Protection and Deflection)

An assessment of possible environmental impact and risk associated with Shoreline Protection & Deflection techniques is undertaken as part of the Otway Exploration Drilling Program EP Section 7.8.

4.4. Shoreline Response: Shoreline Clean-up

Appropriate efforts, as indicated by the NEBA, should be made to prevent an oil spill from reaching a shoreline to help reduce the environmental impact, the duration of the clean-up and the amount of waste generated. In the event that a shoreline is impacted with hydrocarbons, appropriate shoreline clean-up techniques will need to be employed to remove the pollutant.

Many factors influence what clean-up technique should be employed including:

- Shoreline type
- Weather conditions
- Shoreline Accessibility
- Shoreline Sensitivity, and
- The amount spilled.

The predictive modelling generated by RPS covered a wide range of representative of spill locations, two different hydrocarbon types (MDO and Gas Condensate) over two different petroleum titles. Extensive analysis of this modelling data has concluded that King Island and some Local Government Areas (LGAs) along the southern coast of Victoria are most at risk of being impacted.

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Figure 4-1 shows a diagram of the LGAs that could be impacted based on all spill locations, scenarios, and oil types.



Figure 4-1: Potentially affected LGAs for all spills and oil types

In order to mount an effective and timely response to a potential shoreline impact, extensive work has been done to clearly define what clean-up strategies should be employed based on the location of the shoreline impact. The location of the shoreline impact triggers either a Tactical Response Plan (TRP) activation, or a Shoreline Treatment Recommendation (STR) implementation.

TRPs have been developed for areas of high sensitivity (see Shoreline Plan Section 5.2, Table 3 for assessment criteria) on King Island and the Victorian coastlines within the LGAs summarised Table 4-5.

Table 4-5: Victorian tactical response plan (TRP) sites

Victorian TRP's	Latitude	Longitude
Glenelg LGA		
Glenelg River Primary TRP	38° 3'34.76"S	140°59'22.54"E
Portland Primary TRP Site	38°20'42.53"S	141°37'17.54"E
Surrey River Primary TRP	38°15'34.68"S	141°42'4.86"E
Fitzroy River Primary TRP	38°15'42.64"S	141°51'12.37"E
Lake Mombeong Secondary TRP Site	38° 6'46.27"S	141° 7'13.64"E
Moyne LGA		
Moyne River Primary TRP Site	38°23'21.55"S	142°14'55.94"E
Yambuk Lakes Outlet Secondary TRP	38°20'17.43"S	142° 2'45.38"E
Yambuk Coastal Reserve Secondary TRP	38°16'14.69"S	141°54'15.61"E
Belfast Coastal Reserve Secondary TRP	38°20'55.39"S	142°22'4.91"E
Warrnambool LGA		
Merri River Primary TRP Site	38°24'2.60"S	142°28'18.98"E

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Victorian TRP's	Latitude	Longitude
Hopkins River Primary TRP Site	38°24'7.93"S	142°30'32.38"E
Moyne 2 LGA		
Moyne River Primary TRP Site	38°23'21.55"S	142°14'55.94"E
Yambuk Lakes Outlet Secondary TRP	38°20'17.43"S	142° 2'45.38"E
Yambuk Coastal Reserve Secondary TRP	38°16'14.69"S	141°54'15.61"E
Belfast Coastal Reserve Secondary TRP	38°20'55.39"S	142°22'4.91"E
Moyne 2 LGA		
Curdies Inlet Primary TRP Site	38°36'24.74"S	142°52'52.33"E
Buckley Creek Secondary TRP Site	38°29'42.35"S	142°41'7.26"E
Corangamite LGA		
Port Campbell Creek Primary TRP	38°37'7.13"S	142°59'32.30"E
Gellibrand River Primary TRP	38°42'19.06"S	143° 9'23.42"E
Sherbrook River Secondary TRP Location	38°38'35.02"S	143° 3'26.26"E
Colac Otway LGA		
Aire River Primary TRP	38°48'23.17"S	143°27'40.53"E
Parker Inlet Primary TRP	38°50'43.05"S	143°33'40.03"E
Barham River Inlet Primary TRP	38°45'45.23"S	143°40'30.92"E
Apollo Bay Primary TRP Location	38°45'24.43"S	143°40'40.93"E
Skenes Creek Primary TRP	38°43'29.06"S	143°42'39.95"E
Kennet River Primary TRP Location	38°40'1.22"S	143°51'44.83"E
Johanna River Primary TRP Site	38°46'0.72"S	143°23'17.92"E
Cumberland River Primary TRP Site	38°34'34.26"S	143°56'55.64"E
Wye River Primary TRP Site	38°38'4.74"S	143°53'28.79"E
Milanesia Creek Secondary TRP Site	38°45'5.30"S	143°18'49.43"E
Blanket Bay Creek Secondary TRP Site	38°49'35.59"S	143°34'58.68"E
Wild Dog Creek Secondary TRP Site	38°44'8.91"S	143°41'1.90"E
Smythe Creek Secondary TRP Site	38°42'16.87"S	143°45'45.76"E
Sugarloaf Creek Secondary TRP Site	38°41'48.81"S	143°47'47.87"E
Carisbrook Creek Secondary TRP Site	38°41'34.67"S	143°48'34.29"E
Grey River Secondary TRP Site	38°40'57.31"S	143°50'22.21"E
Jamieson Creek Secondary TRP Location	38°35'46.86"S	143°55'9.06"E
South Gippsland LGA		
Port of Anderson Inlet Primary TRP	38°38'23.60"S	145°43'38.49"E
Shallow Inlet Primary TRP	38°52'33.14"S	146°11'41.01"E
Tidal River Primary TRP	39° 1'55.59"S	146°18'51.59"E
Ten Mile Creek Secondary TRP Site	38°49'24.29"S	145°53'39.92"E
Morgan Creek Secondary TRP Site	38°51'40.78"S	145°54'38.11"E
Derby River Secondary TRP Site	38°58'17.29"S	146°16'9.84"E
Whiskey Creek Secondary TRP Site	39° 0'45.70"S	146°17'31.22"E
Squeaky Beach Secondary TRP Location	39° 1'20.13"S	146°18'11.89"E
Growler Creek Secondary TRP Site	39° 3'36.80"S	146°20'44.03"E
Frazers Creek Secondary TRP Site	39° 4'16.47"S	146°20'36.43"E
Freshwater Creek Secondary TRP	39° 4'14.53"S	146°25'37.53"E

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Table 4-6: King Island, Tasmania tactical response plan (TRP) sites.

King Island TRPs	Latitude	Longitude
King Island LGA		
Ettrick River Primary TRP	39°59'36.76"S	143°53'29.45"E
Edward St Pier Secondary TRP	39°55'38.01"S	143°50'34.96"E
Badger Box Creek Secondary TRP	39°57'55.40"S	143°52'25.32"E
Potential Secondary TRP	40° 3'44.60"S	143°52'54.48"E
Eel Creek Secondary TRP	39°45'2.42"S	143°51'14.86"E
Big Lake Inlet Secondary TRP	40° 6'54.97"S	143°56'44.53"E
Camp Creek Secondary TRP	39°55'24.19"S	143°50'38.99"E
Three Rivers Creek Inlet Secondary TRP	39°53'33.29"S	143°50'46.41"E
Porky Creek Inlet Secondary TRP	39°51'22.61"S	143°51'38.57"E
Pass River Secondary TRP	39°48'4.43"S	143°51'53.51"E
Bungaree Creek Primary TRP	39°46'9.34"S	143°51'5.83"E
Yellow Rock River Secondary TRP	39°41'52.58"S	143°53'27.66"E

Where a shoreline is impacted that is not part of a TRP, an STR should be implemented based on its shoreline type and accessibility as per the ConocoPhillips Australia Shoreline Plan (Appendix 1).

4.4.1. Response Activities

The information presented in Table 4-7 should be used to assist in the development of a Shoreline Response Sub-Plan and used in conjunction with the *Tasmania EPA (February 2023) First Strike Plan King Island* and/or the VIC State Maritime Emergencies Subplan Edition 2, where relevant.

Table 4-7: Shoreline clean-up implementation

Shoreline Response: Shoreline Clean-up	
Response Objective	To remove bulk stranded oil from accessible shorelines and speed up natural recovery of habitats.
Response Tactics	Identify potentially affected shorelines using modelling data. Assess potentially affected shorelines using SCAT. Activate relevant TRPs for affected shorelines. Shoreline treatment recommendations will be put in place for all other affected shorelines.
Initiation Criteria	Notification of a spill (MDO, Gas Condensate) to the environment.
Implementation Plan/ Guidance Document	ConocoPhillips Shoreline Sub Plan. Tasmania EPA (February 2023) First Strike Plan King Island VIC State Maritime Emergencies Subplan Edition 2.
Critical Outputs	Coordinate with contractors and jurisdictional authorities to mobilise SCAT teams to conduct shoreline assessments (Appendix 11). SCAT feedback will determine whether a shoreline response is required for any segment/sector. Operational teams to be put together based on recommendations from Primary and Secondary TRPs resource lists. For affected areas where a TRP has not been developed, apply the appropriate STR. Conduct ongoing SCAT operations to monitor shoreline loading throughout the shoreline clean-up operation. Source appropriately skilled personnel and equipment to support the ongoing shoreline clean-up operations of all affected shorelines.
Resources	As per section 4.4.2 Response Resources (Shoreline Clean-up)
Termination Criteria	Termination occurs when the following criteria is fulfilled: • The source of the hydrocarbon spill is controlled. • No additional response or clean-up of habitat is predicted. • Locations predicted to be contacted by hydrocarbons have been contacted.

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	• Independent scientific advice indicates that hydrocarbon levels are below 100g/m^2, or further clean-up activities are unlikely to materially decrease hydrocarbon impacts on environmental sensitivities. Termination criteria is to be agreed with the relevant Control Agency.

4.4.2. Response Resources

Table 4-9 provides a summary of the resources that are expected to be required to support a shoreline clean-up response.

Table 4-8: Summary of Shoreline Clean-up Resources

Resource	Requirement	Availability	Description
Trained SCAT Crew	Typical SCAT crew includes: 1x Wildlife specialist 1x Oil spill response specialist	Available via AMOSC, VIC DTP, TasEPA, AMSA	In order to effectively inform the IMT of an appropriate shoreline clean-up recommendation, a qualified SCAT team should include specialists listed. Consistent, informed data from SCAT can then be fed back into the IMT to allow them to activate the appropriate TRP or STR and source required equipment.
Shoreline Clean-up Team Leaders	Appropriately trained shoreline response team leaders.	Trained shoreline team leaders via AMOSC	Shoreline response team leaders are required to coordinate shoreline clean-up operations. Each team of 10 clean-up responders should be assigned a team leader.
Shoreline Clean-up Responders	Appropriately trained shoreline clean-up responders.	Trained shoreline responders via AMOSC, VIC DTP, TasEPA, AMSA	A shoreline response team should consist of 10 responders to perform the clean-up of the assigned shoreline. This team will be responsible for setting up booming, operating skimming systems, manually cleaning the shoreline and storing waste in appropriate storage containers.
Support Personnel	Labour hire, unskilled workers not required to be trained in oil spill response.	Labour hire contractor, AMOSC Core Group, AMSA NRT, Internal COP personnel	Support personnel are used to help assist in manual shoreline clean-up operations. Where large areas of shoreline are affected, groups of support personnel can be useful under the instruction of trained shoreline responders to perform shoreline clean-up operations.
Beach Clean-up Kit	Beach clean-up kit consists of hand tools used to assist the collection of waste from the shoreline and transport it to the temporary waste storage containers. For example: Shovels, rakes, brooms, wheelbarrows, trowels	Available from AMOSC equipment stockpile, AMSA national plan equipment, bulk purchase from hardware store	Pre-cleaning and post removal of waste from a shoreline is a manual and laborious task and suited to support personnel.
Decontamination Kit	Decontamination kits consist of all equipment necessary to ensure that oil spill responders and equipment are suitably catered for when travelling from the hot zone (contaminated) to the cold zone (uncontaminated). These kits typically consist of, but are not limited to, the following: • Marquees • Bunds • Scrubbing brush's • Waste receptacles • Detergents • Hand wash stations • Jet washers	Available from AMOSC equipment stockpile, AMSA national plan equipment	In order to minimise the movement of oil from the affected shorelines to beyond the operational area, decontamination stations are setup in a warm zone to allow responders, vehicles and equipment to be cleaned prior to entering an uncontaminated zone. These stations are critical in minimising the transmission of secondary contamination beyond the operational area.

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Resource	Requirement	Availability	Description
Mechanical Equipment	Mini Excavator Bobcat Bulldozers	Available through equipment hire contractors	In areas where bulk oil has accumulated on the shoreline, it may be possible to assist in the removal with the use of mechanical equipment as opposed to manual labour alone. Mechanical equipment can help increase the amount of waste removed from the shoreline.
Skimming and ancillary equipment	Drum Skimmer Brush Skimmer Disc Skimmer Passive Weir Skimmer Rope Mop Ro Vac Rock Cleaning Brush System	Available from AMOSC equipment stockpile, AMSA national plan equipment	Floating oil caught in containment and recovery booms can be removed from the water surface prior to it stranding on the shoreline. Skimmers can be used to transport the liquid hydrocarbon from the water surface to temporary storage containers.
Waste Management Support Services	Waste management contractor	CoP waste management contractor, other waste management contractors	Once waste has been collected on the shoreline, whether it be liquid oily waste, solid oily waste, or contaminated PPE, a suitable waste contractor should be employed to assist with the removal of waste from the operational area.
Temporary Waste Storage	Fastank temporary storage. Intermediate Bulk Containers (IBC). Vikoma storage tanks. Specialised bins (plastic lined) used for storage and transport of waste.	Available from AMOSC equipment stockpile, AMSA national plan equipment	A shoreline clean-up generates vast amounts of varying waste streams. Suitable storage containers need to be available to store this waste until the waste management support can remove it from site.

4.4.3. Environmental Risk Assessment (Shoreline Clean-up)

An assessment of potential environmental impacts and risks associated with Shoreline Clean-up techniques is undertaken as part of the Otway Exploration Drilling Program EP Section 7.8.

4.5. Oiled Wildlife Response

Oiled wildlife response (OWR) is a support function that is implemented alongside other response options if applicable and commensurate to the scale and nature of the spill. OWR tactics and techniques are intended to mitigate adverse wildlife impacts by reducing the number of animals that come into contact with spilled oil, capturing and rehabilitating oiled fauna, and removing oiled carcasses to reduce secondary impacts.

OWR will be conducted under the supervision of state authorities, in accordance with state specific marine oil spill contingency plans and relevant wildlife response plans.

Typical OWR can be separated into three stages, these include:

1) **Wildlife Reconnaissance** - situational awareness / visual observations of species present and identification of species that may potentially be impacted by vessel, aircraft, vehicle, AUV, or foot.
2) **Preventative Actions**:
   a) Deterrence strategies (e.g. hazing by auditory or visual scarers)
   b) Displacement strategies (e.g. fencing or barricading techniques)
   c) Pre-emptive capture - removal of wildlife from an area and transportation to a staging facility or to an adequate area not expected to be impacted.
3) **Wildlife Rescue**:
   a) Capture of oiled wildlife – action only to be completed by trained wildlife handlers.
   b) Transportation to field processing facility and / or primary care facility staging.
   c) Triage – undertaken by trained veterinarians (euthanasia may be required).
   d) Stabilisation – of wildlife prior to cleaning.
   e) Cleaning – rinsing, washing, drying to remove contamination.

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f) Rehabilitation – feeding, swimming, waterproofing, conditioning, pre-releases assessment.
g) Release – once approved.

4.5.1. Response Activities

Observations for oiled wildlife would occur during aerial/vessel surveillance and monitoring (OM02 and OM03 of the OSMP). A decision would be made to activate OWR based on observations as well as advice from relevant organisations, agencies and stakeholders. The responsibility for OWR depends on the location and origin of the spill.

Victoria

The Department of Energy, Environment and Climate Action (DEECA), formerly DELWP is the agency responsible for responding to wildlife affected by a marine pollution emergency in Victorian State waters. DEECAs response to oiled wildlife is undertaken in accordance with the Wildlife Response Plan for Marine Pollution Emergencies, with support of agencies including Parks Victoria and Philip Island Nature Park.

To activate oiled wildlife response, contact DEECA on **136 186** for Wildlife Emergencies and **1300 136 017** specifically for Whale and Dolphin Emergencies.

Tasmania

The Tasmanian Oiled Wildlife Response Plan ("WildPlan") sets out the minimum standard required for an Oiled Wildlife Response in Tasmania within State waters. All oil spill response strategies involving the management of wildlife needs to be planned and undertaken by experienced personnel. This role within Tasmania is the responsibility of the Environment Business Unit of the Department of Natural Resources and Environment (NRE Tas) under the leadership of the Marine Conservation Program (MCP; Wildlife, Health and Marine (WHAM) section).

The MCP Wildlife Co-ordinator should be contacted in the event of an oil spill of any size via the 24-hour "Whale" Hotline on **0427 942 597** (0427 WHALES).

Commonwealth

AMOSC and AMSA have on call personnel and equipment that can be activated to support an oiled wildlife response in commonwealth waters.

The IMT should consult with AMSA, DECCA, NRE Tas, AMOSC and the Phillip Island Nature Park wildlife clinic to provide support for any wildlife response activities, including obtaining permits to conduct an OWR in State waters and/or Commonwealth waters, as stated above.

ConocoPhillips Australia will provide support for the response through provision of resources as requested by the relevant agency utilising existing contracts such as AMOSC.

To activate, contact:

- **AMSA**: Ph 1800 641 792
- **AMOSC**: 0483 379 328

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4.5.2. Response Resources

Table 4-9 provides a summary of the resources available to ConocoPhillips Australia to support a request for resource assistance from the relevant state agency.

Table 4-9: Summary of oiled wildlife response resources

Resource	Requirement	Availability	Description
OWR Personnel	AMOSC Oiled Wildlife Advisor AMOSC Core Group AMOSC Industry Strike Team Third party support agencies/organisations	Trained OWR personnel via AMOSC	Available via trained AMOSC staff, Industry personnel (via Mutual Aid) and supporting National and Global OWR organisations.
OWR Facility Establishment /Management	OWR Facilities establishment group (DWYERtech Response Ltd)	Available via AMOSC SLS	Call-off contract with service available on-site within 24hrs of call-out.
OWR Containers	1x OWR Container (Geelong) 1x OWR Container (Fremantle)	Available via AMOSC SLS	AMOSC OWR containers available onsite within 24hrs of call-out.
OWR Kits	*Geelong:* 1x OWR Fauna Hazing & Exclusion Kits 2x OWR Fauna Kits *Fremantle:* 4x OWR Fauna Hazing & Exclusion Kits *Exmouth:* 1x OWR Fauna Kit *Broome:* 1x OWR Fauna Kit	Available via AMOSC SLS	AMOSC OWR kits available onsite within 24hrs of call-out.

4.5.3. Environmental Risk Assessment

An assessment of possible environmental impact and risk associated with oiled wildlife response techniques is undertaken as part of the Otway Exploration Drilling Program EP Section 7.8.

4.6. Waste Management

Oil spill response operations generate a variety of waste streams that need to be planned for including:

- Liquid Wastes (oil and water)
- Bulk Hard Wastes including oil mixed with organic material, sand, rocks, debris, etc, and
- Sundry wastes including PPE, catering, etc.

All waste generated from oil spill response activities will require effective management, storage, transportation and disposal. The type and amount of waste generated will heavily rely on the response strategy employed, the volume of oil encountered and the affected shoreline substrate type.

4.6.1. Waste Types and Volumes

For planning purposes, stochastic modelling data has been used to calculate estimated total waste volumes for each scenario and oil type.

Stochastic modelling data was used over deterministic data as the deterministic modelling data only covers the worst-case scenario for each location. The chances of the conditions being the same as the deterministic run are slim, therefore, a stochastic approach was used which better represents the likelihood of shoreline contact. Stochastic oil spill modelling is created by overlaying hundreds of individual, computer-simulated hypothetical spills and presenting the results as a probability of shoreline contact.

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In Section **4.4 – Shoreline Response: Shoreline Clean up, Figure 4-1**, potentially affected LGA's are identified for all spill scenarios. The waste generated from the shoreline clean up response strategy is primarily sand with oily residue. **Table 4-10** summarises the affected LGA's and the total potential volume based on stochastic modelling data for actionable shoreline contact. Shoreline loading of oil above 100g/m^2 is considered actionable.

The predictive modelling undertaken for all locations and both oil types along with the recommended response strategies, indicate that the volumes of waste generated can be vastly different, depending on when, where, how much, and of what oil type is spilled.

Table 4-10: Potential Waste Volumes Generated

Permit Area	Scenario	Season	Location	Waste type	Total Volume Ashore (m^3)	Total Actionable Ashore (m^3) (>100g/m^2)	Waste Volume (M^3)
T49P	Vessel Collision - 350m^3 of MDO over 6 hours, surface release	Summer	1	-	3.8	0	0
		Winter	1	-	8	0	0
		Summer	2	Sand with oil residue	35.2	35.2	352
		Winter	2	Sand with oil residue	47.4	47.4	474
		Summer	3	Sand with oil residue	7.3	7.3	73
		Winter	3	Sand with oil residue	28.8	28.8	288
	Gas Condensate LOWC 139,000m^3 released over 90 days	Summer	1	Sand with oil residue	6.1	0	0
		Winter	1	Sand with oil residue	20	8.2	82
		Summer	2	Sand with oil residue	71	71.6	716
		Winter	2	Sand with oil residue	196	196.3	1963
		Summer	3	Sand with oil residue	26.5	25	250
		Winter	3	Sand with oil residue	58.7	58.4	584
P79	Vessel Collision - 350m^3 of MDO over 6 hours, surface release	Summer	1	Sand with oil residue	20.3	3.3	33
		Winter	1	Sand with oil residue	28.9	6.5	65
		Summer	2	Sand with oil residue	20.3	41.1	411
		Winter	2	Sand with oil residue	28.9	24.7	247
		Summer	3	Sand with oil residue	9.8	17.5	175
		Winter	3	Sand with oil residue	18	32.4	324
		Summer	4	Sand with oil residue	34.1	33.8	338
		Winter	4	Sand with oil residue	43	43	430
	Gas Condensate LOWC 139,000m^3 released over 90 days	Summer	1	Sand with oil residue	38.6	24.4	244
		Winter	1	Sand with oil residue	51.9	67.3	673
		Summer	2	Sand with oil residue	121.3	127.9	1279
		Winter	2	Sand with oil residue	139.7	189.8	1898
		Summer	3	Sand with oil residue	66.6	123.3	1233
		Winter	3	Sand with oil residue	140	213.5	2135
		Summer	4	Sand with oil residue	236.6	408.9	4089
		Winter	4	Sand with oil residue	318.9	548.1	5481

Where Red, >10% probability of waste coming ashore, Orange, <10% probability of waste coming ashore and Green, 0% chance of any waste coming ashore above the actionable limit of 100g/m^2.

4.6.2. Waste Management Planning

It is envisaged that the Waste Management Plan will come into full effect from Day 2 of a response. The passage of two days allows for the reactive phase of the response to commence with operational response strategies employed.

A Waste Management Plan will need to be developed by the Incident Management Team in support of the Incident Action Plan. For shoreline response waste, this will need to be completed in support to/ in consultation with the relevant Jurisdictional Control Agency. It is recommended that a representative from the selected waste provider(s) is consulted during the development phase to ensure accuracy and to provide logistical support.

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The final decisions on how waste can be lawfully stored, transported, and disposed of, will be subject to advice and approvals from the EPA at the time of the incident. Waste management contractors will need to abide by the relevant EPA acts when involved with the collection, transportation, storage, and processing of waste.

Victoria: https://www.epa.vic.gov.au/for-business/find-a-topic/manage-industrial-waste/hazardous-waste

King Island: https://epa.tas.gov.au/business-industry/regulation/waste-management

4.6.3. Waste Management: Contractors, Transport, Storage, Processing

There are several waste management contractors available in Victoria with two of the largest being Cleanaway and Veolia. Both contractors are setup and capable of collecting, storing, and processing large volumes of waste that could be potentially generated during a high-level oil spill event. Sections 4.6.3.1 and 4.6.3.2 go through the contact information and capabilities of each of these contractors in Victoria. King Island only has one waste contractor, being the King Island Council, who are responsible for all of King Islands waste management via the King Island Council waste infrastructure plan. Section 4.6.3.3 highlights the capabilities of this waste management contractor.

This information should be used to assist the development and execution of an effective waste management plan/operation.

4.6.3.1. Contact Information

Cleanaway Melbourne Corporate Head Office
Level 4, 441 St Kilda Road, Melbourne, VIC, 3004
Ph: 13 13 39 – Option 3 (Oily water and hazardous waste)
Emergency Spills Response: 1800 SPILLS / 1800 774 557

Veolia Liquid and Hazardous – Environmental Services
15 McDonald Road, Brooklyn, VIC, 3028
Ph: 132 955
24/7 Customer Portal: https://vanz.force.com/customerportal

4.6.3.2. Contractor Capability

An overview of the currently identified contractors' capabilities is provided in Table 4-11.

Table 4-11: Contractor capability overview

Capability	Cleanaway	Veolia
Operational Depot Locations	Hazardous waste operational depots located in Sunshine, Mulgrave and Morwell in Victoria.	Operational locations across Victoria
Adherence to regulatory requirements relating to the transport, storage, and disposal of oil/hazardous waste (List them). • State/Federal • ISO Certifications	Comply with AS/NZS 4801:2001 ISO 14001 ISO 9001 OHS 609391 And all state/federal regulations	Comply with AS/NZS 4801:2001 ISO 14001 ISO 9001 And all state/federal regulations
Experience in handling Hazardous/Oily Waste	Yes, Cleanaway are one of the largest waste management providers in Australia and provide waste management across all sectors of industry.	Yes, Veolia are contracted to many companies to provide hazardous waste management
Permitted to handle and transport Hazardous Waste Victoria wide.	Yes, licenced by the EPA and WorkSafe to transport and handle hazardous and dangerous waste.	Yes, by the EPA and WorkSafe to transport and handle

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Capability	Cleanaway	Veolia
• Permitted fleet.	Cleanaway has established relationships with the EPA and hold permits for the operational areas outlined. Cleanaway can also obtain permits with experienced staff on call to assist with permit applications.	hazardous and licenced dangerous waste
24hr On Call access?	Yes, to contracted customers via 1800 774 557	24hrs via Customer Portal
In field technical support/liaison capability. How many personnel can be used to assist in a large-scale incident?	Yes, available to contracted customers.	[HOLD]
Temporary Storage/In field management		
In field storage capability for liquid waste • Type of storage • Quantity available	Hazardous waste storage drums Intermediate Bulk Containers Temporary Storage Facilities – equipped with containment measures and operated in compliance with regulatory requirements	Yes, numbers to be confirmed
In field storage capability for solid waste • Type of storage • Quantity available	Bin sizes from 120L to 6.0m Skip sizes from $3m^3$ to $31m^3$	Yes, numbers to be confirmed
Ability to transfer from temporary storage to transport vehicle (Liquid and solid)	Yes, ability to transfer waste as required using pumps and vacuum trucks	[HOLD]
Site decontamination capability	Yes, can provide decontamination capability including road cleaning with specially designed vacuum trucks to clean the road surface if required.	[HOLD]
Transport		
Fleet available for Hazardous liquid waste transport including surge capacity: • Immediate • In 24hrs • In 48hrs • Total available	1500 assets available nationally. Availability is dependent on contract in place. Cleanaway has a fleet from Medium Rigid to Semi Trailers with a tank size from 6,000L to 30,000L located across their sites nationally.	Assets available in Victoria and nationally.
Fleet available for solid transport including surge capacity: • Immediate • In 24hrs • In 48hrs • Total available	1500 assets available nationally with capability to transport solid waste. Availability is dependent on contract in place	Assets available in Victoria and nationally
Vehicle decontamination capability (yes/no, if yes, describe)	No	[HOLD]
Road decontamination capability (Yes/no, if yes describe)	Drain cleaning, rotary mower, Industrial vacuum trucks and high-pressure blasting and access to a specially designed vacuum trucks to clean the road surface if required.	[HOLD]
Disposal		
Ability to dispose hazardous solid waste. • Disposal Location/s • Volume per day per location	Yes, locations Australia wide	Yes, sites in Brooklyn, Echuca Dandenong, and Hallam

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Capability	Cleanaway	Veolia
Ability to dispose hazardous liquid waste. • Disposal Location/s • Volume per day per location	Yes, locations in Dandenong and Campbellfield. Cleanaway also can leverage on 3rd party facilities if operationally efficient. Cleanaway sites Can process >200,000L per day	Yes, Veolia operates the Brooklyn Industrial Services Hub

4.6.3.3. King Island Council

King Island Council
PO Box 147 Currie
King Island TAS 7256
Ph: 03 6462 9000

The King Island Council will transfer waste to Charles Street transfer station/depot for relocation to either the Parenna landfill or the old Charles Street landfill.

Table 4-12: Solid waste capability – KIC King Island

Type	Capacity	First 24 Hours	24 – 48 Hours	Beyond 48 Hours
Rear Loader (240l and 660l Bins)	12 - 14 Tonne	1 Truck	1 Trucks	Based on Island availability

4.6.4. Environmental Risk Assessment

An assessment of possible environmental impacts and risks associated with Waste Management techniques has been undertaken as part of the Otway Exploration Drilling Program EP Section 7.8.

4.7. Operational and Scientific Monitoring Program

ConocoPhillips Australia have developed an Operational and Scientific Monitoring Program (OSMP) to meet the requirements of the Environment Regulations. The OSMP is the principle tool for determining the extent, severity and persistence of environmental impacts from an oil spill, and allows titleholders to determine whether their environmental protection goals are met. Operational monitoring can be used to assess how effective the oil spill response is in protecting the environment. Whereas scientific monitoring can be used to direct remediation efforts, typically after the spill response activities are completed.

The OSMP is designed to support the implementation of a range of operational and scientific monitoring plans, depending on the type of spill, location, and status of the response. The use of vessels, aircraft, and shoreline responders (on foot, vehicles) may be required to undertake the techniques identified within the OSMP.

The activation process, specific plans, capability and resourcing requirements are detailed in the OSMP, and the individual supporting plans are summarised in the Table 4-13 below.

Table 4-13: Operational and scientific monitoring plans

Plan	Title
Operational Monitoring	
OM01	Hydrocarbon and other chemical spill trajectory prediction
OM02	Hydrocarbon and other chemical spill surveillance and reconnaissance
OM03	Operational monitoring of hydrocarbon and other chemical properties, behaviour and weathering
OM04	Pre-emptive assessment of sensitive receptors at risk

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Plan	Title
OM05	Operational monitoring of sensitive receptors & SCAT
OM06	Air Quality Modelling (Responder Health and Safety)
Scientific Monitoring	
SM01	Monitoring of hydrocarbons and other chemicals in marine waters
SM02	Monitoring of hydrocarbons in benthic sediments
SM03	Survey of shoreline/intertidal sediments and biological communities to determine impacts of hydrocarbon spill and other chemicals and recovery
SM04	Monitoring of subtidal benthos to determine impacts of hydrocarbon spill/other chemicals and recovery
SM05	Wildlife surveys to determine impact of hydrocarbon / chemical spill on shorebirds and seabirds
SM06	Wildlife surveys to determine impact of hydrocarbon / chemical spill on marine megafauna
SM07	Determination of impact of hydrocarbon / chemical spill on commercial, traditional and recreational fisheries and aquaculture
SM08	Determination of impact of hydrocarbon / chemical spill on recreational, commercial and/or industrial users
SM09	Determination of impact of hydrocarbon / chemical spill on conservation, heritage and native title importance

4.8. Demobilisation

The termination of an oil spill response includes:

- Demobilisation of equipment
- Post-incident reporting
- Review and updating of current plans
- Rehabilitating damaged environments
- Resupplying equipment, and
- Post spill scientific monitoring.

The decision to demobilise needs to be made in conjunction with the relevant government authorities that may include Vic DTP, TasEPA, AMSA and NOPSEMA. This decision can me made once all termination criteria have been met for any response operation, at any time. Resources can then be moved into other operational areas or rehabilitated and stood down. Key considerations are safety and prioritisation of resources with lower utilisation, higher costs and greater decontamination needs.

The response termination process may take days or weeks to complete depending on the scope and scale of the response. Figure 4-2 below summarises the process for terminating an oil spill response and the associated activities.

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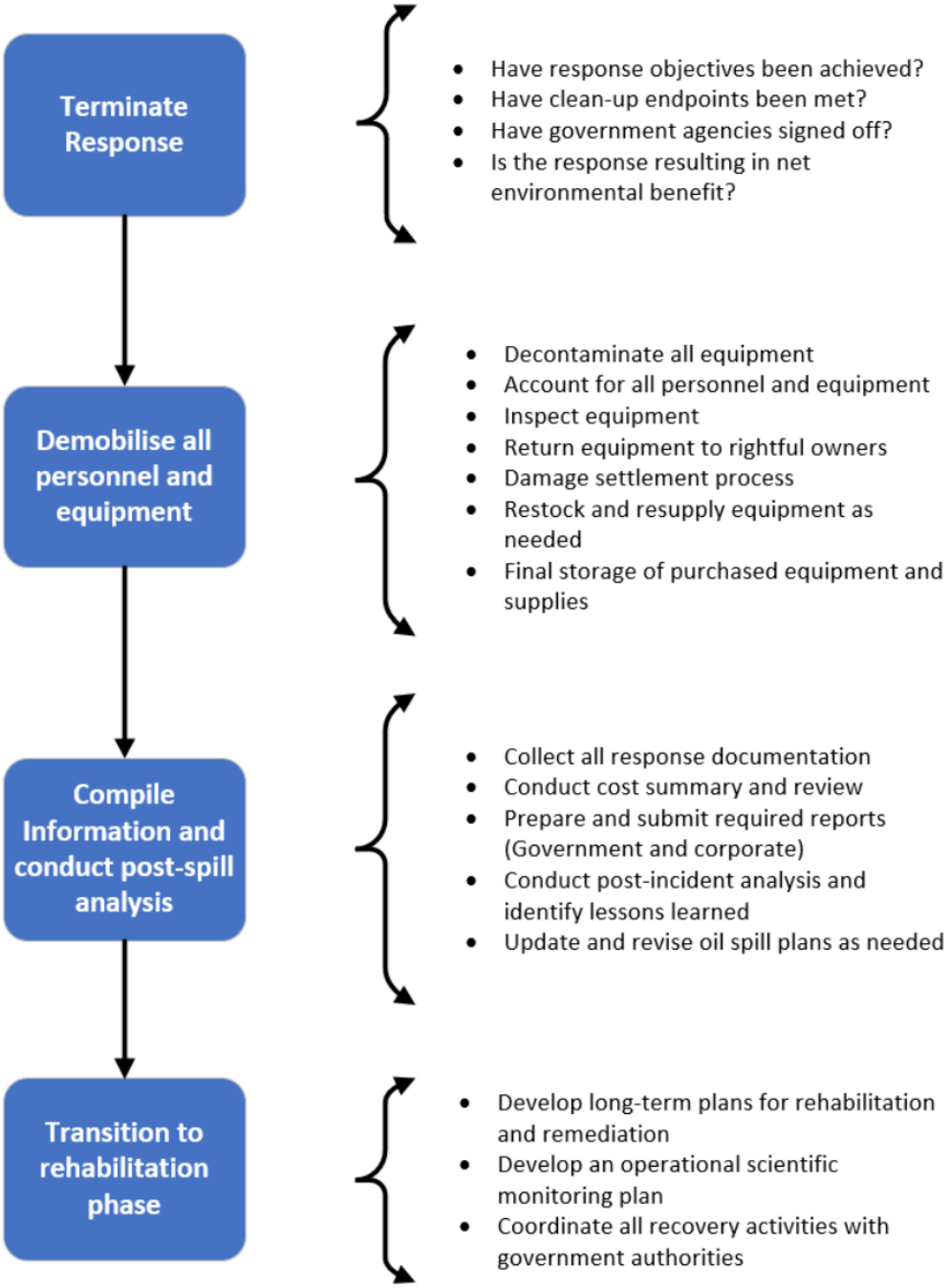


Figure 4-2: Oil spill response termination procedure

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5. Response Resources

Logistical and support arrangements for the supply of people, equipment and resources will operate in a local, regional and global approach.

5.1. Local Resources

Local resources are those available in the state of Victoria or on King Island, Tasmania, and can be used on short notice. This equipment may come from the Port Authorities, State Jurisdictions (VIC DPT or TasEPA), local governments (e.g. access to earthmoving equipment and trained operators), or from access to locally available AMSA and AMOSC equipment.

5.2. Regional Resources

Regional response resources are those that are available within Australia. These may take time to mobilise and can come from AMOSC, AMSA, ConocoPhillips Australia operations or via the AMOSPlan Mutual Aid arrangements with industry.

5.2.1. AMOSC Resources

ConocoPhillips Australia have access to AMOSC equipment and resources Australia wide. Geelong based equipment can be mobilised to King Island in approximately 18hrs. Additional equipment in Fremantle, Exmouth and Broome can be mobilised to the Port of Geelong in approximately 40, 51 and 55hrs respectively. This includes an allowance of 4hrs for truck availability/sourcing and loading.

An overview of what equipment AMOSC has available is on the AMOSC website http://www.amosc.com.au/equipment.php

An inventory is in Appendix 2 with live readiness status and locations available via the members section of the AMOSC website https://amosc.com.au/member-login/. Access to this information is available via the AMOSC Duty Officer.

AMOSC also has access via the AMOSPlan to Mutual Aid equipment via its members. This equipment can be made available to ConocoPhillips Australia in the event of a response (Appendix 13).

5.2.2. AMSA Resources

ConocoPhillips Australia have access to AMSA equipment Australia wide through AMOSC and the National Plan. AMSA maintain significant stockpiles of equipment in Adelaide, Brisbane, Dampier, Darwin, Devonport, Fremantle, Melbourne, Sydney, and Townsville.

A full inventory of AMSA equipment is available from the AMSA website: https://amsa-forms.nogginoca.com/public/equipment.html

AMSA also administers the National Response Team (NRT). The purpose of the NRT is to provide a national incident management and field operations surge capacity to support Australian pollution response control agencies responding to major marine environmental incidents. NRT is a core capability of the National Plan for Maritime Environmental Emergencies (NATPLAN) and comprises of 40 incident management team personnel and 42 field team leaders.

5.2.3. Labour Hire

ConocoPhillips Australia has access to labour hire arrangements to support shoreline protection and clean-up operations via commercially available providers.

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5.3. Global Resources

The ConocoPhillips Global Incident Management Assist Team (GIMAT) is a specialist incident management team. Members are located globally and can be readily mobilised to support a business unit IMT that has exceeded its capacity or is required to maintain sustained IMT operations over an extended duration incident.

The GIMAT can fill most roles within the ConocoPhillips IMT structure.

ConocoPhillips Australia also has access to the global Crisis Management Support Team (CMST). The CMT can request assistance, advice and support on a range of issues from the CMST including:

- Providing guidance on major corporate strategic objectives
- Being available to:
  - Assist in communications with senior personnel of business partners
  - Provide general assistance to the ABU CMT
  - Contact senior community leaders including government Ministers and others at the request of the CMT, and
  - Brief other ConocoPhillips staff and operations.

6. Environmental Performance

Table 6-1 provides a summary of the Environmental Performance Outcomes (EPO), Control Measures (CM), Performance Standards (EPS), Measurement Criteria (MC) and responsibilities for the implementation of this OPEP.

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Table 6-1: Environmental performance requirements and responsibilities for the OPEP

Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
General – Response Preparedness				
Trained and competent IMT and CMT personnel, including Source Control Branch, are prepared to effectively respond to a worst-case spill scenario for the duration of the activity	Response Training, Exercising and Testing	ConocoPhillips response personnel are trained and deemed competent according to the Training and Exercising Plan.	Training Records Training and Exercising Plan	COP GM-HSE
		Exercising and testing is completed according to the Training and Exercising Plan.	Training and Exercising Plan	COP GM-HSE
		Lessons from exercises and testing are captured, actioned and integrated into the OPEP.	Exercise and testing report(s) including observations and opportunities for improvement Actions are managed to completion Management of Change Register	COP GM-HSE
		Assurance that the initial ConocoPhillips Australia Source Control Branch can be activated and mobilised within 24 hours.	IMT Roster Exercise and Testing Records	COP GM-HSE
Timely and ongoing consultation, notification and reporting to government agencies and other relevant persons	Communication Plan	Maintain Notifications Checklist (Section 3.2 of the OPEP).	Management of Change Register	COP GM-HSE
		Undertake consultation with relevant government departments and other relevant persons in development of OPEP to align response strategies and minimise potential impacts and risks to environmental values and sensitivities.	Consultation Records EP Sensitive Information Report	COP GM-HSE
		Prior to commencement of drilling, undertake testing of Communication Plan, including communication protocols between:	Consultation Records	COP GM-HSE

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
		• The MODU and the National Response Centre • The IMT, CMT and Source Control Branch • The IMT and Jurisdictional and Regulatory Authorities and Control Agencies • The Source Control Branch and well control specialists.	Exercise and Testing Records	
Prepare for timely implementation of Response Plans	Supporting Plans	Supporting Plans are developed prior to commencement of exploration activities, including: • Aviation Plan • Shoreline Plan • Waste Management Plan • Communication Plan • Tactical Response Plans (TRPs).	Plans	COP GM-HSE
Maintain capability to effectively implement source control response strategies	Shipboard Marine Pollution Emergency Plan (SMPEP) / Shipboard Oil Pollution Emergency Plan (SOPEP)	Vessel SMPEP / SOPEP in place appropriate to class.	Vessel Inspection Reports	COP GM-HSE
	Service Agreements	Establish agreements, contracts, memberships or pre-qualifications for source control response capabilities prior to drilling, and maintain for the duration of the drilling activity, including: • AMOSC Subsea First-strike Response Toolkit (SFRT) membership (equipment and trained responders • Signatory to APPEA Memorandum of Understanding: Mutual Assistance • Well control specialists to supply specialist personnel and equipment • Freight services provider.	Agreements, contracts, memberships and pre-qualification records are current	COP GM-HSE
	Source Control Response Resources and Monitoring	Establish access to adequate resources to support source control response for worst-case duration of 90 days, prior to drilling, and maintain access for the duration of the drilling activity, including:	Agreements, contracts, memberships and pre-qualification records are current	COP Drilling Manager

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
		• Access to additional trained and competent personnel to support and maintain the Source Control Branch, and • Access to adequate equipment and consumables in line with source control response strategies, including long-lead items such as MODU, casing, casing shoes and wellhead equipment.	IMT Roster Log of rig availability	
		Monitor the location and availability of source control response resources and materials defined within the SCERP prior to and during drilling, including: • Available suitable MODUs, contact details and safety case status. • Available support vessels and contacts. • Available equipment* required to support a source control response and contacts. * Tracked equipment includes wellhead systems, conductor, surface and intermediate casing status.	Agreements, contracts, memberships and pre-qualification records are current Log of rig availability	COP Drilling Manager
		In the event that monitoring indicates a suitable MODU and/or support vessel is not available through APPEA MOU, develop a mobilisation plan for nominal international MODU, including biosecurity clearance, prior to commencing drilling.	Mobilisation Plan for international MODU IMS risk assessment	COP Drilling Manager
		Maintain Relief Well Timeline based on monthly monitoring of readiness. Undertake frequent review and update of timeline and adjust according to Source Control Response Resource Monitoring.	Relief Well Timeline Log of rig availability	COP Drilling Manager
	Blowout Preventer (BOP)	The BOP will be routinely function and pressure tested in accordance with manufacturer's specifications and in alignment with Drilling Contractors preventative maintenance system.	BOP Test Report	COP Drilling Manager
		Third-party verification / inspection of BOP function and pressure tests – conducted prior to commencement of drilling campaign.	Third Party BOP Inspection Report	COP Drilling Manager
		Alternative BOP configuration (e.g. additional Blind Shear Ram installed, addition of pipe ram, sealing mechanisms) following BOP risk assessment.	BOP Configuration Report	COP Drilling Manager

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
	Independent Well Control Device – Kinetic Blowout Stopper (KBOS) / Mudline Closure Device (MCD)	If used, the Independent Well Control Device (KBOS) will be shell tested prior to installation and during operations. Circuit continuity checks, per original equipment manufacturer (OEM) recommendations will be performed when installed. If used, the Independent Well Control Device (MCD) will be pressure tested and function tested per OEM requirements prior to installation and once in place.	PECS / MLD Test Report	COP Drilling Manager
	Relief Well Plan (RWP)	Complete relief well design assessment to identify and screen relief well spud locations prior to drilling campaign (pre-drilling) to reduce time taken to plan and execute relief well.	Relief Well Design Assessment in SCERP Seabed Survey Report	Drilling Manager
Maintain capability to effectively implement Surveillance, Modelling & Visualisation (SMV), Shoreline Response and Oiled Wildlife Response (OWR) in a Level 2 or 3 spill event	Service Agreements in place for SMV, Shoreline Response and OWR	Maintain agreements, contracts, membership or pre-qualifications for SMV, Shoreline Response and OWR capabilities, including: • AMOSC membership (equipment, personnel, CORE Group, Mutual aid, Aerial Observers, RPS-APASA Contract) • AMSA support obligations under the National Plan (equipment, personnel) • RPS OSMP Agreement • Aviation support services • Marine support services • Vessel of Opportunity listing • Waste management provider.	Agreements, contracts, memberships and pre-qualification records are current	COP GM-HSE
	Pre-position first strike response resources on King Island, Tasmania	First strike response equipment will be pre-positioned on King Island to support rapid response, in the event that drilling is scheduled to occur within the central zone of T/49P Operational Area, adjacent to King Island.	Agreements, contracts in place Equipment in position prior to drilling in central zone of T/49P	COP GM-HSE
General – Response Actions				
Timely and ongoing consultation with	Communication Plan	Initial notifications and written reporting to be undertaken in accordance with the relevant content and timeframes specified in the Notifications Checklist (Section 3.2 of the OPEP).	IAP System	COP IC

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
relevant government agencies			Situation Reports (SITREPs)	
		Provision of ongoing Situation Reports (SITREPs).	IAP System Situation Reports (SITREPs)	COP IC
	Operational Monitoring Information	Provide information to the Jurisdictional Authority and State Control Agency/ies from operational monitoring, where available, including: • OM01: Hydrocarbon Spill Trajectory Prediction • OM02: Hydrocarbon Spill Surveillance and Reconnaissance • OM03: Operational Monitoring of Hydrocarbon Properties, Behaviour and Weathering • OM04: Pre-emptive Assessment of Sensitive Receptors at Risk • OM05: Operational Monitoring of Contaminated Sensitive Receptors.	IAP System Consultation Records	COP IC
	Operational NEBA and Risk Assessment	Undertake Net Environmental Benefit Analysis (NEBA) and risk assessment in consultation with State CA and relevant stakeholders prior to commencement. NOTE: ConocoPhillips Australia's NEBA and risk assessment processes will be used unless otherwise directed.	IAP System Consultation Records	COP IC
Establish, implement and maintain effective safety exclusion zones	Exclusion Zones	The need for safety exclusion zones, and any changes to these, to prevent exposure of contractors and third parties to hazardous conditions is documented in the IAP.	IAP System documents identification and communication of safety exclusions zones	COP IC
Source Control Actions				
Implement Source Control Emergency Response Plan to regain control of the well and eliminate the release of	Response Timeline	During incident, undertake frequent review and update of Relief Well Timeline and adjust according to Source Control Response Resource Monitoring.	IAP System Relief Well Timeline	COP IC
	Blowout Preventer (BOP)	Activate BOP as per documented procedure and assess effectiveness.	IAP System	COP IC

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
hydrocarbons to the environment	Independent Well Control Device (KBOS/MCD)	If installed, activate independent well control device (KBOS/ MCD) per documented procedure and assess effectiveness.	IAP System	COP IC
	Survey Capability	Mobilise ROV from support vessel or MODU as soon as safely practicable to survey the source of the leak and support planning.	IAP System	COP IC
	Source Control Diagnostics	Remote access to well control specialists within 24 hours and mobilisation of well control specialists within 3 days, if required, to support diagnosis of well condition and develop remedial action options.	IAP System	COP IC
	Debris Clearance and Intervention	Commence debris clearance and intervention activities as soon as safely practicable from MODU or support vessels. If in-field resources are damaged / unavailable, mobilise alternate vessel with appropriate tooling to initiate repairs.	IAP System	COP IC
		Attempt direct intervention via ROV using supplied source control equipment (hot stab) and trained responders, as soon as safely practicable.	IAP System	COP IC
	Relief Well Plan (RWP)	Manage relief well operations in accordance with the Incident Action Plan (IAP), Relief Well Plan (RWP) and third-party requirements.	IAP System Relief Well Plan Relief Well Timeline	COP IC
Surveillance, Modelling & Visualisation (SMV)				
As requested by the relevant Control Agency implement Surveillance, Modelling & Visualisation (SMV) to inform spill response (Level 2 or 3 spill only)	Oil Spill Tracking Buoy	An oil spill tracking buoy and instructions for deployment will be located offshore at all times when vessels are operating.	Equipment manifest (or equivalent evidence)	COP GM-HSE
		Oil spill tracking buoy deployed in safe proximity to plume as soon as possible.	IAP System	COP IC
	Oil Spill Trajectory Modelling (OSTM)	Initiate Oil Spill Trajectory Modelling (OSTM) via RPS-APASA within 2 hours of spill incident notification, with initial results available within 5 hours, in accordance with OM01 (Hydrocarbon Spill Trajectory Prediction).	IAP System	COP IC

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
	Satellite Imagery	Request satellite imagery for area via AMOSC within 48 hours of spill incident notification, subject to availability of Satellite and visibility, in accordance with OM02 (Hydrocarbon Spill Surveillance and Reconnaissance).	IAP System	COP IC
	Aerial Observation	Initiate aerial observation during daylight hours within 24 hrs of spill incident notification in accordance with OM02 (Hydrocarbon Spill Surveillance and Reconnaissance).	IAP System	COP IC
	Vessel Observation	Initiate vessel observation within 2 hours of spill incident notification in accordance with OM02 (Hydrocarbon Spill Surveillance and Reconnaissance).	IAP System	COP IC
	Oil Spill Vector Calculation	Initiate manual vector calculations to identify spill impact areas within 12 hrs of spill incident notification.	IAP System	COP IC
No injuries or death of megafauna resulting from monitor and evaluate activities	Response – Marine mammal 'No Approach Zones' and 'Buffer Distances'	Vessel masters and crew will be briefed on and adhere to caution and 'no approach zones' and interaction management actions as defined in OSMP, e.g. EPBC Regulations 2000 – Part 8 Division 8.1 and Victorian Wildlife (Marine Mammals) Regulations 2019.	Induction Induction attendance records	COP GM-HSE
		Aircraft will ensure buffer distances of 500m (helicopters) and 300m (fixed wing) are maintained to whales and dolphins.	Induction Induction attendance records	COP GM-HSE
	Response – Incident reporting	Any injury to, or mortality of, an EPBC Act Listed Threatened or Migratory Species (including those from a vessel strike) will be recorded on the National Ship Strike database within 72 hours.	Incident Reports IAP System	COP GM-HSE
Shoreline Response – Protection and Deflection				
Timely implementation of shoreline protection and deflection for priority protection sites	Implementation of Shoreline Response Sub-Plan and Tactical Response Plans (TRPs)	In the event of an incident, a site-specific shoreline response sub-plan will be developed in consultation with relevant government agencies and will include details on arrangements for shoreline protection and deflection.	Shoreline Response Sub-Plan	COP GM-HSE
		TRPs are implemented for priority protection areas, where shoreline loading is predicted to exceed 100 g/m^3 within 7 days.	TRPs IAP System	COP GM-HSE

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
As requested by the relevant Control Agency implement or provide resources for shoreline protection and deflection (Level 2 or 3 spill), appropriate to the nature and scale of predicted shoreline impacts	Resource Deployment	SCAT teams deployed and available onsite within 48 hours of spill event (daylight hours permitting) in consultation with the State Control Agency to undertake rapid reconnaissance survey of shoreline and intertidal habitat, in accordance with OM05 (Operational Monitoring of Contaminated Sensitive Receptors).	IAP System Consultation Records	COP IC
	Access Authority	In consultation with State Control Agency, obtain access authority from relevant stakeholders prior to accessing shoreline.	IAP System Consultation Records	COP IC
Impacts to cultural heritage and social values are prevented	Consultation with First Nations people	In conjunction with State Control Agency, engage with First Nations people to facilitate site surveys and tagging out and protection of identified areas or importance.	IAP System Consultation Records	COP IC
	Consultation with relevant government departments	In conjunction with State Control Agency, consult with relevant government departments prior to deployment of equipment to establish controls for other marine and coast users along affected coastline.	IAP System Consultation Records	COP IC
Impacts to native vegetation and fauna are prevented	Site survey for critical habitat	Surveys are undertaken to identify, mark out and protect nesting and critical habitat.	IAP System	COP IC
	Trained fauna handlers	Only trained and accredited teams deployed by the Lead Agency for oiled wildlife will approach and handle fauna.	Shoreline Induction Induction Records	COP IC
	Use of existing tracks and pathways, where possible	Utilise existing tracks and paths where possible to minimise disturbance associated with the implementation of this response technique.	Shoreline Induction Induction Records	COP IC
Shoreline Response – Shoreline Clean-up				
	Implementation of Shoreline Response Sub-Plan and Tactical	In the event of an incident, a site-specific shoreline response sub-plan will be developed in consultation with relevant government agencies and will include details on arrangements for shoreline clean-up.	Shoreline Response Sub-Plan	COP GM-HSE

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
Timely implementation of shoreline clean-up for priority protection sites	Response Plans (TRPs)	TRPs are implemented for priority protection area, where shoreline loading is predicted to exceed 100 g/m^3 within 7 days.	IAP System TRPs	COP GM-HSE
As requested by the relevant Control Agency implement or provide resources for shoreline clean-up (Level 2 or 3 spill), appropriate to the nature and scale of predicted shoreline impacts	Shoreline Assessment and Clean-up Team (SCAT) Resource Deployment	SCAT teams deployed and available onsite within 48 hours of spill event (daylight hours permitting) in consultation with the State CA to undertake rapid reconnaissance survey of shoreline and intertidal habitat, in accordance with OM05 (Operational Monitoring of Contaminated Sensitive Receptors).	IAP System Consultation Records	COP IC
	Access Authority	In consultation with State Control Agency, obtain access authority from relevant stakeholders prior to accessing shoreline.	IAP System Consultation Records	COP IC
Impacts to cultural heritage and social values are prevented	Consultation with First Nations people	In conjunction with State Control Agency, engage with First Nations people to facilitate site surveys and tagging out and protection of identified areas or importance.	IAP System Consultation Records	COP IC
	Consultation with relevant government departments	In conjunction with State Control Agency, consult with relevant government departments prior to deployment of equipment to establish controls for other marine and coastal users along affected coastline.	IAP System Consultation Records	COP IC
Impacts to native vegetation and fauna are prevented	Site survey for critical habitat	Surveys are undertaken to identify, mark out and protect nesting and critical habitat.	IAP System	COP IC
	Trained fauna handlers	Only trained and accredited teams deployed by the Lead Agency for oiled wildlife will approach and handle fauna.	Shoreline Induction Induction Records	COP IC
	Use of existing tracks and pathways	Utilise existing tracks and paths where possible to minimise disturbance associated with the implementation of this response technique.	Shoreline Induction Induction Records	COP IC
Oiled Wildlife Response				

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
Timely and ongoing consultation with relevant government agencies	Communication Plan	Notification of relevant State Agency/ies as soon as possible after initial sighting of oiled wildlife or when operational monitoring determines oiling of wildlife is likely.	IAP System	COP IC
As requested by the relevant Control Agency implement or provide resources for oiled wildlife response (Level 2 or 3 spill)	Oiled Wildlife Response Resources	AMOSC Oiled Wildlife Response kits are deployed to site within timeframes as directed by State Control Agency/ies.	IAP System	COP IC
		Additional Control Agency resource requirements are met throughout the response.	IAP System	COP IC
Wildlife is only approached or handled by state agency trained oiled wildlife responders, unless formal direction is received from the state government IMT	Response Training	ConocoPhillips Australia's response personnel training includes content on wildlife interaction restrictions.	Training Records Incident Reports	COP GM-HSE
		Only trained and accredited teams deployed by the Lead Agency for oiled wildlife will approach and handle fauna.	Shoreline Induction Induction Records	COP IC
Impacts to cultural heritage and social values are prevented	Consultation with First Nations people	In conjunction with State Control Agency, engage with First Nations people to facilitate site surveys and tagging out and protection of identified areas or importance.	IAP System Consultation Records	COP IC
	Consultation with relevant government departments	In conjunction with State Control Agency, consult with relevant government departments prior to deployment of equipment to establish controls for other marine and coastal users along affected coastline.	IAP System Consultation Records	COP IC
Impacts to native vegetation and fauna are prevented	Site survey for critical habitat	Surveys are undertaken to identify, mark out and protect nesting and critical habitat.	IAP System	COP IC
	Use of existing tracks and pathways	Utilise existing tracks and paths where possible to minimise disturbance associated with the implementation of this response technique.	Shoreline Induction Induction Records	COP IC
Waste Management				

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Environmental Performance Outcome	Control Measure	Environmental Performance Standard	Measurement Criteria	Responsible Person
Waste generated by response activities will be appropriately handled, stored, transported and disposed	Development of a Waste Management Sub-Plan	**Waste Management Sub-Plan** In the event of an incident, site-specific waste management sub-plan(s) will be developed in consultation with relevant government agencies and will include details on arrangements for: • Waste handling • Waste storage • Waste transport • Waste disposal.	Waste Management Sub-Plan Consultation Records	COP IC

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Appendix 1: External Support Oil Spill Response Plans

Aviation Plan

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Australia Business Unit

Otway Exploration Drilling Program Aviation Plan

ABU2-000-EN-V01-D-00007

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Revision Detail

Rev Number	Date	Author	Approver
000	24/10/2023	[redacted]	[redacted]

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Abbreviations and Definitions	
AAT	Australian Amalgamated Terminals
ABV	Above
ACFT	Aircraft
AD	Aerodrome
ADC	Air Data Computer
ADSL	Asymmetric digital subscriber line
AGS	Airbase Group Supervisor
AH	After Hours
AMOSC	Australian Marine Oil Spill Centre
AMSA	Australian Maritime Safety Authority
AOM	Airbase Operations Manager
AOBD	Aviation Operations Branch Director
ARO	Aerodrome Reporting Officer
ATO	Air Tasking Orders
BGAN	Broadband Global Area Network
CASA	Civil Aviation Safety Authority
CTAF	Common Traffic Advisory Frequency
COP	ConocoPhillips
ERSA	Enroute Supplement Australia
FM	From
FOB	Forward Operating Base
GSM	Global System for Mobile Communication
HEL	Helicopter
HF	High Frequency
ICAO	International Civil Aviation Organisation
IC	Incident Commander
ICC	Incident Command Centre
ICS	Incident Command System
IMT	Incident Management Team
INT	Intersection
KI	King Island
LGA	Local Government Area
LOWC	Loss of Well Control
MDO	Marine Diesel Oil
MTOW	Maximum Take Off Weight
NBN	National Broadband Network
Nm	Nautical Mile
NOTAM	Notice to Air Missions
OEDP	Otway Exploration Drilling Project
OPEP	Oil Pollution Emergency Plan
OPR	Operator/Operations
OPS	Operations
PAL	Pilot Activated Lighting
PJE	Parachute Jump Exercise
PRKG	Parking
RWY	Runway

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Abbreviations and Definitions	
SAR	Search and Rescue
SARTIME	Time Search Action Required
SMEACS	Situation, Mission, Execution, Administration, Command and Control, Safety – Briefing tool
SMV	Surveillance, Monitoring and Visualisation
TAS	Tasmania
UHF	Ultra-High Frequency
UNCR	Unregistered (Uncertified) Aerodrome
UTC	Universal Time Coordinated
VAR	Magnetic Variation
VHF	Very High Frequency
VIC	Victoria
YBRS	Barwon Heads Airport ICAO Code
YKII	King Island Airport ICAO Code
YSMI	Smithton Airport ICAO Code
YWBL	Warrnambool Airport ICAO Code
YYRM	Yarram Airport ICAO Code

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1. Purpose

The purpose of this Aviation Plan is to describe the arrangements that ConocoPhillips Australia, in association with AMOSC, has in place to prepare for and respond to aerial surveillance of a hydrocarbon release during the Otway Exploration Drilling Project.

This plan will provide the ConocoPhillips Incident Management Team (IMT) with the information and procedures required to operate and manage all aspects of an aerial surveillance operation. It has primarily been designed to assist in the setup and operation of a remote forward operating base (FOB) utilising AMOSC as the manager of these operations.

2. How to Use this Plan

This plan supports Section 4.2 (Surveillance, Modelling and Visualisation) of the ConocoPhillips Australia OPEP.

Each section of this Plan and its supporting appendices has been drafted to expedite the implementation of aerial surveillance operations.

By following the flowchart in Section 3 – Figure 3-2: Aerial Surveillance Response Flowchart, clear tasking and responsibilities have been outlined to ensure that when aerial surveillance is required, it can be implemented with minimal delays.

Once activated, AMOSC will follow the Airfield Setup Procedures flowchart in Section 4 – Figure 4-1: Airfield Setup Procedures Flowchart to nominate an airfield and Forward Operating Base (FOB), acquire suitable surveillance aircraft and appropriately trained personnel, complete all appropriate documentation, and begin surveillance operations.

3. Aerial Surveillance

Four primary airfields have been selected to cater for the potentially affected shorelines. Typically, a surveillance aircraft will need to be capable of flying up to 100nm from the FOB to conduct surveillance operations. This has been highlighted in Figure 3-1 below.

Primary airfields include:

1) Barwon Heads Airport – YBRS (Section 7.1)
2) King Island Airport – YKII (Section 7.2)
3) Yarram Airport – YYRM (Section 7.3)
4) Warrnambool – YWBL (Section 7.4)

Initially, operations will be run from the Barwon Heads Airport due to its proximity to both drilling permit areas and the AMOSC stockpile of equipment. If the surveillance operation is required to move to a more suitable location (closer to the drifting spill for example), AMOSC will relocate the FOB to a more suitable airfield. If the operation plans to move to the King Island Airport, supporting logistics needs to be setup five days prior to commencing operations, as the airport does not hold any fuel stores.

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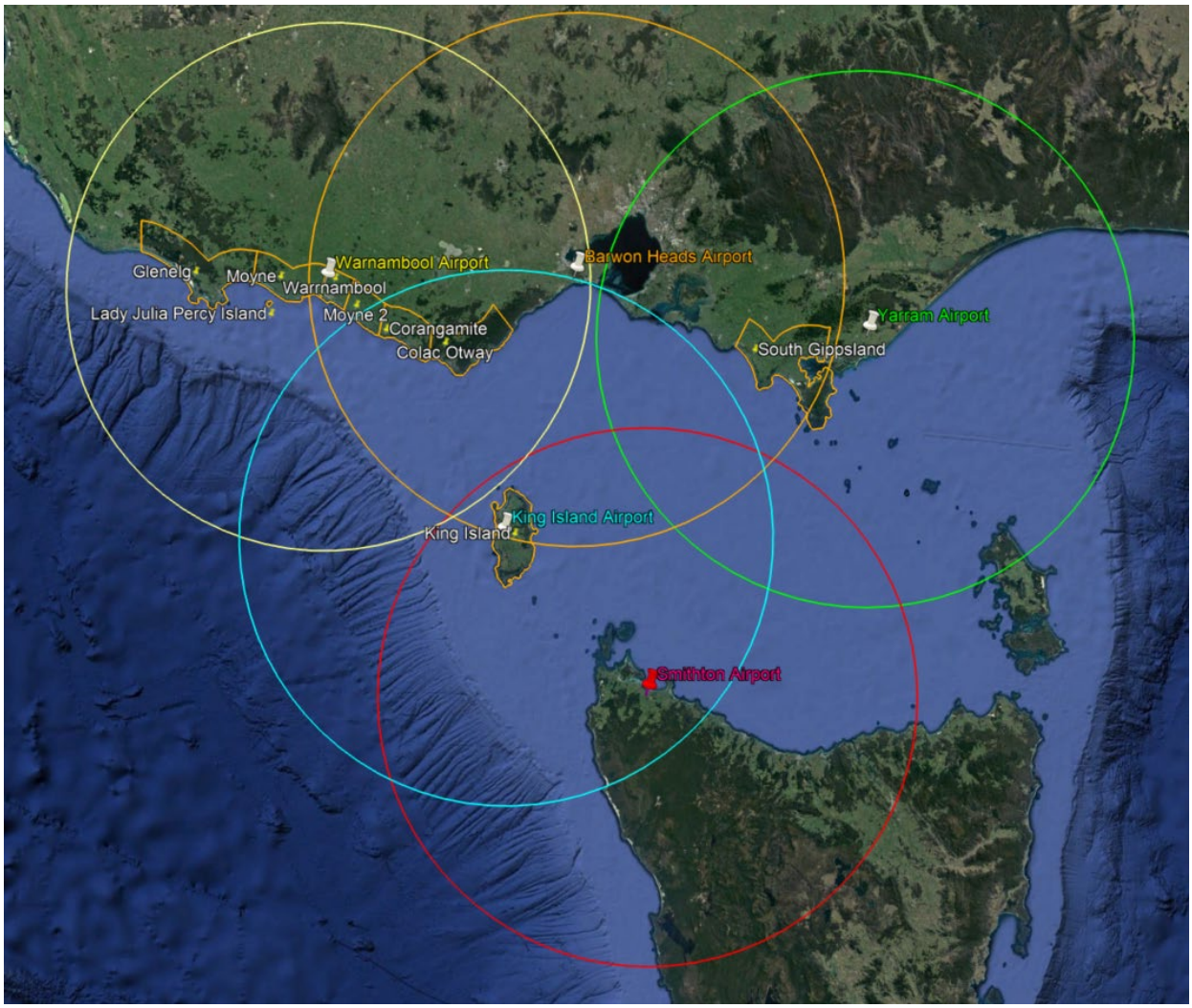


Figure 3-1: Airfield locations with 100nm boundaries highlighted, covering all potential shoreline breaches.

The Aerial Surveillance response strategy is outlined in Figure 3-2 below.

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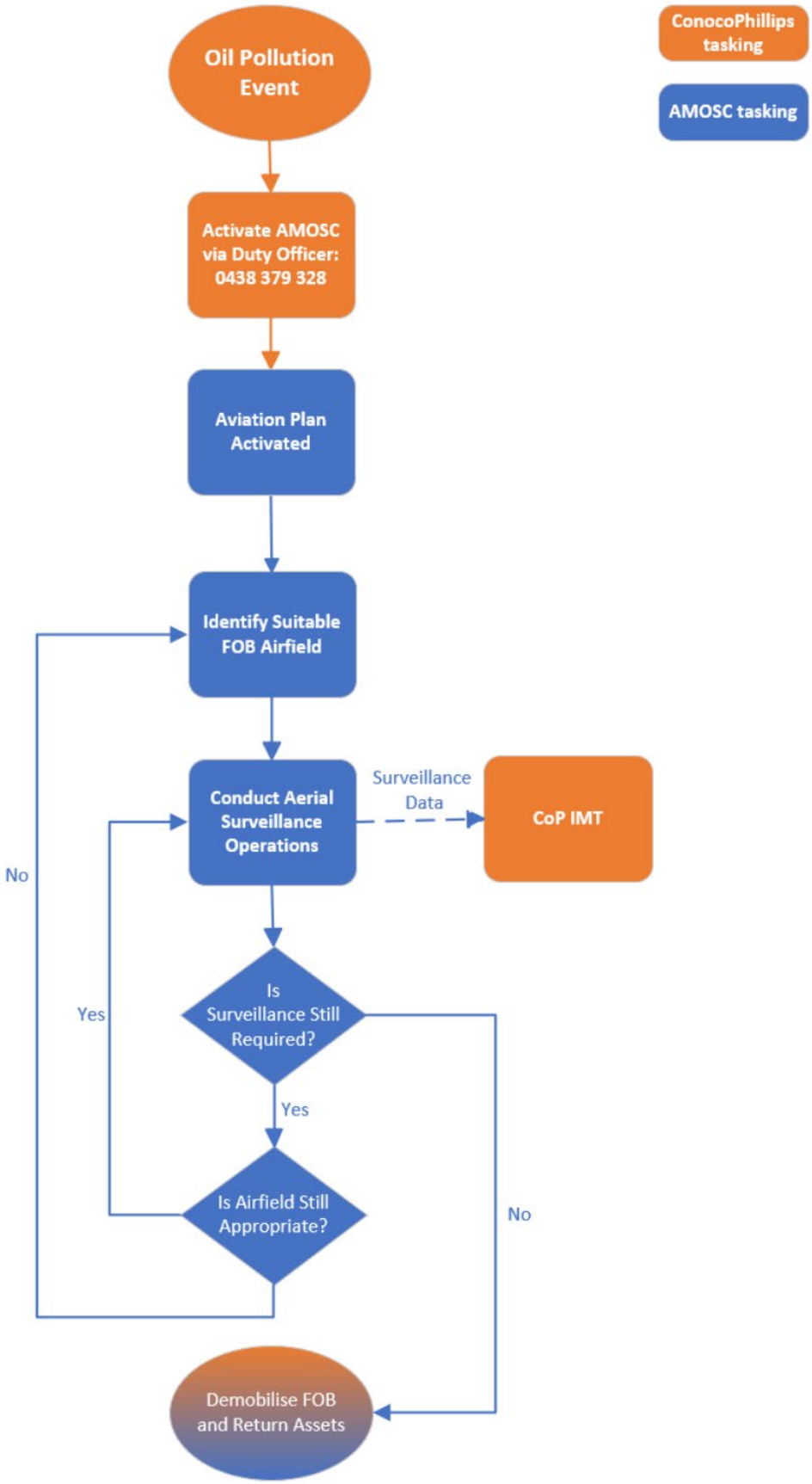


Figure 3-2: Aerial Surveillance Response Flowchart

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4. Airfield Setup Procedure

Once the surveillance contract has been activated by ConocoPhillips Australia, AMOSC will activate and conduct the aerial surveillance operations using the procedure outlined in Figure 4-1 below.

This flowchart ensures that all people, equipment, and documentation are in place.

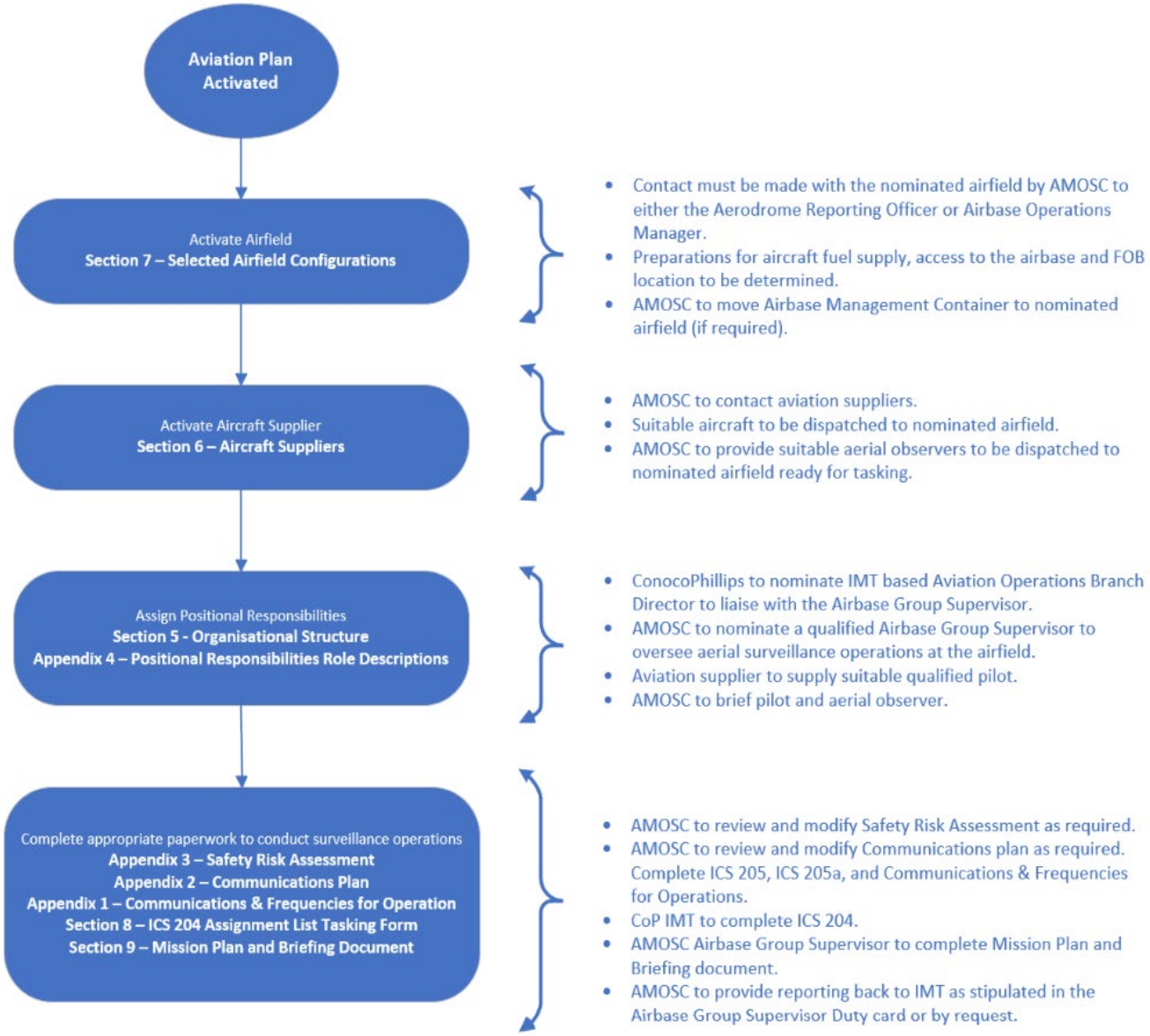


Figure 4-1: Airfield Setup Procedure Flowchart

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5. Organisational Structure

The positions required to undertake an effective aerial surveillance operation have been highlighted in Figure 5-1 below.

Detailed descriptions and responsibilities for these positions can be found in Appendix 4 – Positional Responsibilities Role Descriptions.

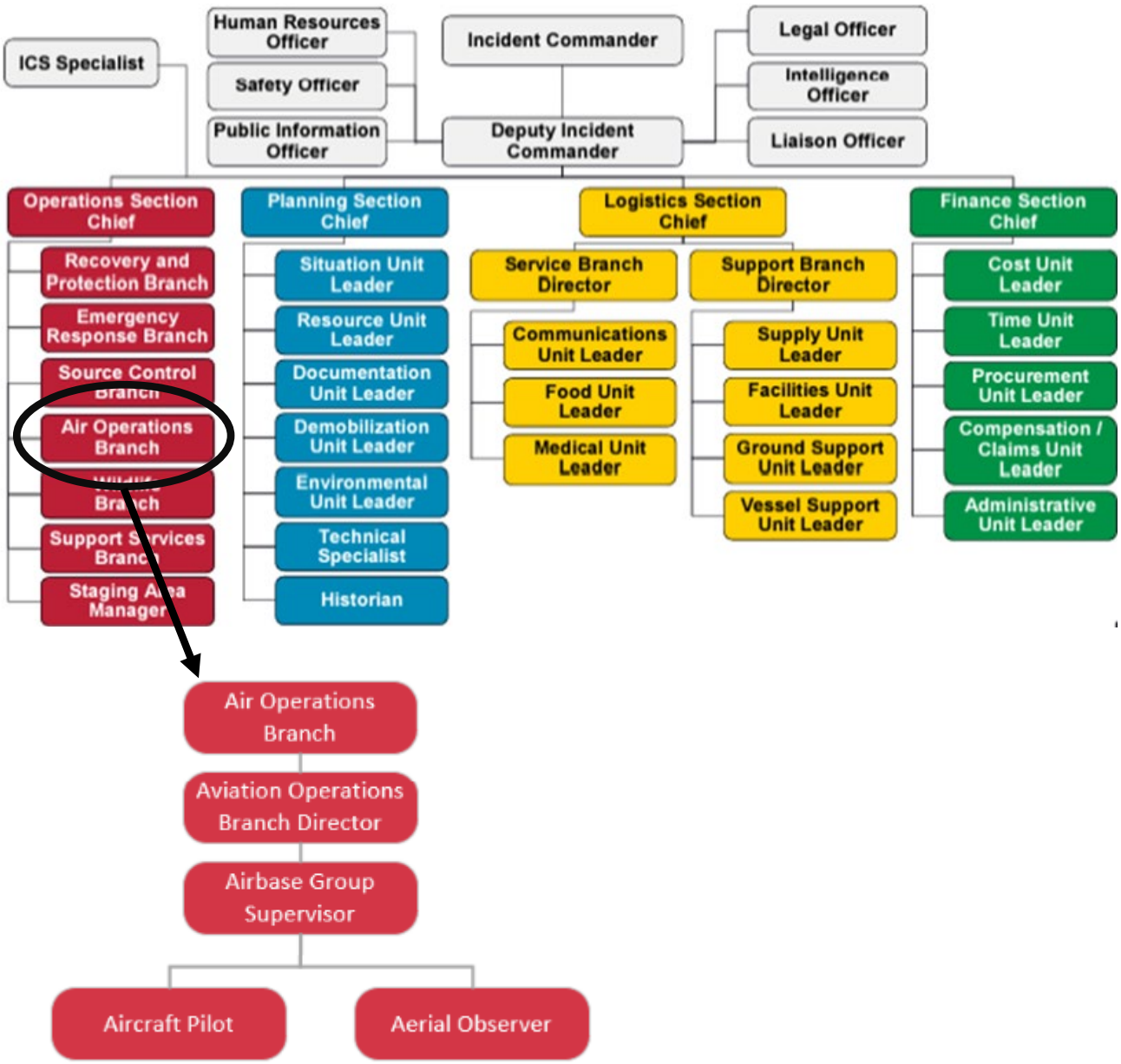


Figure 5-1: CoP organisational structure showing expanded "Air Operations Branch" Roles.

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6. Aircraft Suppliers

Two aircraft suppliers have been identified as suitable for ConocoPhillips Australia's aerial surveillance operations (see Table 6-1).

When choosing an aerial observation platform, the preference is to use twin engine aircraft, however, with a risk assessment and buoyancy bags fitted to the ground runners while flying over water, single engine aircraft may also be suitable. This decision will be made by the operational staff at the time of the incident, taking into account weather conditions and distance from shoreline.

Table 6-1: Rotary wing surveillance aircraft suppliers

Supplier	Aircraft	Engine	Quantity	Passengers
Microflite Aviation 27/31 Northern Ave, Moorabbin Airport, VIC 3194 Phone (03) 8587 9700 enquiry@microflite.com.au https://microflite.com.au/	Airbus EC120 B	Single	4	4
	Airbus AS350 B2	Single	2	5
	Airbus AS350 B3 / B3e	Single	6	5
	Airbus EC130 B4 / T2	Single	4	6
	Airbus AS355 NP	Twin	1	5
	Airbus EC135 P2+	Twin	1	4
	Airbus H135 P3H (Helionix)	Twin	1	5
	Bell 212	Twin	1	10
Professional Helicopter Services 44-46 Bundora Parade, Moorabbin Airport, VIC, 3194 Phone: 1300 359 747 headoffice@phs.com.au https://phs.com.au	Schweizer 300 CBI	Single	1	1
	Robinson R22	Single	1	1
	Robinson R44	Single	1	3
	Bell 206B3 Jet Ranger	Single	1	3
	Bell 206L1-C30P Long Ranger	Single	1	6
	AS355 F2 Twin-Squirrel	Twin	1	6
	Eurocopter EC130 B4	Single	1	6
	Eurocopter AS350 Squirrel	Single	1	5

7. Selected Airbase Configurations

7.1. Barwon Heads Airport – YBRS

Barwon Heads Airport is a small airfield specifically for light aircraft on the Bellarine Peninsula near the township of Barwon Heads, Victoria, Australia. It is primarily used for scenic flights, private aircraft and flight training.

The airport has a flight training school with two classrooms and fuel facilities. A shower and toilets are located in the terminal building, there is a kitchen, snack and drink machines and a lounge area.

The airport has two runways, the main one is an unrated sealed north/south runway, and there is a smaller east/west grass runway, primarily for ultralight aircraft, and light aircraft in stronger wind conditions.

This airfield can be used for all initial surveillance flights given its close proximity to both drilling permit areas.

7.1.1. YBRS Contact Details

Barwon Heads Airport: 1405 Barwon Heads Road, Connewarre VIC, 3227, Australia and/or PO Box 1123, Barwon Heads VIC, 3227, Australia.

Phone Contacts:

- Jeff Brooks 0418 643 401
- Don Adamson 0418 138 840
- Anton Westerink 0410 552 373

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7.1.2. YBRS Local Information

PJE and HEL OPS.

Highway to the South of RWY 18/36, 50M displaced threshold.

Windsock located RWY INT.

Barwon Heads Airport is not a security-controlled airport.

Landing and overnight fees apply.

Prior permission is required before using the airport.

Surface of runway 09/27 is not all weather and should be checked by the pilot in command before use to assess serviceability for your aircraft, it is important you remain on taxiways at all times and refrain from turning on the sealed runway, a turning area is provided at north end to allow turn and back track.

Avgas is available but prior arrangements may be required. A $20 call out fee is payable AH. All avgas is to be paid at time of refuelling. For avgas they have a number of commercial operators with keys or can arrange with one of the contacts a time for access. Although YBRS is not a self-service Avgas dispenser it is treated as one. All pilots must be aware that as a consequence no after refuelling sample is taken at YBRS and as such CASA Regulations {Section 20.2 Issue 5 part 5.1 (ii)} requires an after fuelling sample to be taken from each aircraft tank before flight.

All pilots of aircraft wanting to land or take-off at YBRS must agree to YBRS terms of conditions before operating on the airfield.

YBRS has a number of commercial operators operating from the airport, these include:

- Flight training
- Warbird adventure flights
- Helicopter flights, and
- Skydiving.

After hours toilet is available with the pin code/door lock 1357 (Melbourne Centre Area Frequency).

All aircraft which are not on the CASA Aircraft database must register their aircraft and provide a billing address with us before landing at YBRS.

All landing & overnight fees and any other chargers are to be deposited into the cash box in the side of the office wall or directly into our bank account.

It is the responsibility of all aircraft owners and pilots to secure their aircraft while on the airfield

YBRS accepts no responsibility for damage sustained to any aircraft left on the airport arising from any cause whatsoever, including negligence on the part of YBRS.

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7.1.3. YBRS Airport Setup

Barwon Heads- YBRS

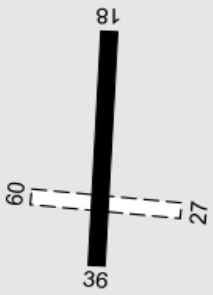


Activation Detail:

Ph: 0418 643 401
Ph: 0418 138 840
Ph: 0410 552 373

BARWON HEADS/GEELONG **ELEV 50**

FULL NOTAM SERVICE NOT AVBL



VIC UTC +10 YBRS
381529S 1442539E VAR 12 DEG E UNCR
AD OPR Geelong Surfcoast Airpark, 1411-1419 Barwon Heads Road, Connewarre, VIC, 3227. PH 0418 643 401. Website: www.barwonheadsairport.com.au.

REMARKS

1. Prior permission to land required, refer website.
2. Private AD, landing fees must be paid by all ACFT including RAA. Refer website.

HANDLING SERVICES AND FACILITIES

AVGAS AVBL by arrangement, refer website.

Airport Information	
Approved loading area	Yes
Access to loading area	Yes
Water supply	Yes
Jet A1 fuel	Yes (see ERSA details above)
Access to office facilities	Yes
3G & 4G Reception	Yes
Wifi Available?	Yes
Access to welfare buildings	Yes

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7.1.4. YBRS Runway Information



- Elevation 50ft.
- CTAF 119.00.
- Area Frequency is Melbourne Centre 120.00.
- On the northern side of the airport just outside the circuit area is Class E Airspace. Avalon Approach 133.55.
- Surface of runway 09/27 is not all weather and should be checked by the pilot in command before use to assess serviceability for your aircraft.
- Runway 36 slopes up to North.
- Runway 18 slopes down to the South.
- Runway 09 slopes down to the East.
- Runway 27 slopes up to the West.
- Runway 36 has a displaced threshold due to Barwon Heads Road (Do not fly low over the road).
- Runway 09 has a displaced threshold due to Stacey's Road.
- Runways 36/18 are sealed but unrated, edges can be soft, do not attempt to exit other than by the taxiways. A turning area is provided at the north end to turn for backtracking.
- All circuits are left hand (unless advised).
- In zero wind they prefer aircraft take off to the south using 18 and landing using 36 (assuming no other conflicting traffic). This uses the slope for best advantage.
- Caution, helicopter landing areas are normally located grass right of runway 36 (they are well outside the gable markers and not marked by the H as depicted by the photo).
- Beware of birds around the airport and in the circuit area (due to the wetlands and Lake Connewarre).
- Caution parachute operations, they operate all year round & normally land in the parachute landing area as depicted in the photo with the red box.
- In wet weather stay on runways and taxi ways at all times.
- Visitor and overnight parking are available on the concrete pads south of the fuel bowser. Overflow parking is available to the West of the windsock and on the North side of the East and West runaways as depicted in the photo with the blue box.
- PAL lighting on runway 18/36 can be activated by 5 clicks on the CTAF 119.00 within 10 seconds.

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7.2. King Island Airport - YKII

King Island Airport is a small regional airport located near the town of Currie on King Island off the north-west coast of Tasmania, Australia. The airport is owned and operated by the King Island Council.

Facilities include the King Island Airport Cafe, public toilets, visitor information brochures, free parking and disability access. There are a number of areas available to setup a FOB including parts of the airport facility and a house which may be available for use through the King Island Council.

Refuelling facilities at the airport do not exist, with the airport only holding 5 drums of Jet A1 for emergencies at any one time. Logistics will need to be setup to barge in fuel trucks to assist with the refuelling of aircraft. Currently TasPorts is the primary supplier of bulk fuel products to the Island, however an alternative would be to utilise the vessel “John Duigan” and load a fuel truck from AAT Appleton Dock for transport to King Island. Tas Cargo Services handle all transport arrangements.

Microflite Helicopter services can supply the following:

- 2000 litre fuel trailer
- 5700 litre fuel trailer
- 18,000 litre fuel truck

Fuel vehicles only available outside of the fire season. Alternative sources of fuel can be acquired by Microflite if the fuel vehicles are not available. The fuel vehicle needs to be no heavier than 28 tonnes as the Melbourne loading side is via crane only. The King Island side is roll off, so weight is not a factor unloading.

The now defunct runway 06/24 has been identified as the primary staging location of aircraft and refuelling, as it is only used for overflow aircraft parking and is far enough away from regular airport activities so as not to interfere with regular daily operations.

7.2.1. YKII Contact Details

- Address: King Island Airport, 102 Morrison Ave, Loorana, TAS 7256
- Phone: Airport Reporting Officer (ARO) (03) 6462 1499

- Address: King Island Council, PO BOX 147 Currie, King Island, Tasmania 7256
- Phone: (03) 6462 9000

- Address: TasPorts, 90-110 Willis Street, Launceston, PO Box 1060, Launceston, Tasmania 7250
- Phone: 1300 366 742

- Address: Tas Cargo Services, 146 Wilson St Burnie
- Phone: 1300 038 228

- Address: AAT Appleton Dock, 59 Appleton Dock Road, West Melbourne, Victoria 3003

7.2.2. YKII Local Information

Bird hazard exists. Periods of increased activity will be advised by NOTAM.

King Island Airport is a security-controlled airport (ASIC required).

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7.2.3. YKII Airport Setup

King Island - YWBL	Activation Detail:
	Aerodrome Reporting Officer: Ph (03) 6462 1499

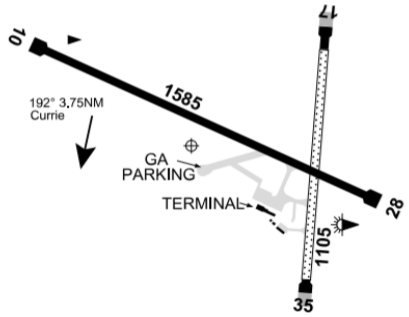
KING ISLAND **ELEV 132**

AVFAX CODE 7013

TAS UTC +10 YKII

395239S 1435242E VAR 12 DEG E CERT

AD OPR King Island Council, PO Box 147, Currie, King Island, TAS, 7256. Email: airport@kingisland.tas.gov.au. ARO 03 6462 1499. Council PH 03 6462 9000: Fax 03 6462 1313. Website: www.kingisland.tas.gov.au.



REMARKS

1. AD Charges: all ACFT.
2. This AD is a Security Controlled Airport.

AERODROME OBSTACLES

1. Windfarm 4.9NM SSE AD, 571FT AMSL.
2. Two towers in close proximity 2.95NM S AD. 312FT AMSL.

Airport Information:	
Approved loading area	TBD
Access to loading area	TBD
Water supply	TBD
Jet A1 fuel	No
Access to office facilities	Yes
3G & 4G Reception	Yes
Wifi Available?	No
Access to welfare buildings	TBD

7.2.4. YKII Runway information

- Runway 10/28 - 1,585m × 30m – Surface paved, lighted
- Runway 17/35 - 1,105m × 30m – Surface other (COM), lighted
- Runway 06/24 - 800m × 30m – Surface gravel, lighted, no longer active.

7.3. Yarram Airport – YYRM

The Yarram airport (also known as the Yarram Aerodrome) is located 3nm East of Yarram, Victoria, Australia and is a small regional airport. The Yarram aerodrome is now operated by the Wellington Shire Council and boasts an all-weather gravel runway, runway lighting, GPS approaches and a number of hangars and a terminal building.

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7.3.1. YYRM Contact Details

- President: Brian Lucas - 0428 527 237
- Aerodrome Reporting Officer (ARO): Jim Christison - 0429 825 266
- Coordinator Aerodromes: Theo Christopher - 1300 366 244
- Secretary/Treasurer: Trevor Bruns - 0438 384 744
- Chief Flying Instructor: Allan Jarvis - 0439 613 868

7.3.2. YYRM Local Information

Ultralight ACFT movements at AD.

Turbulence and windshear hazard exist:

- RWY 09 – when NE wind ABV 10KT;
- RWY 27 – when NW wind ABV 10KT

Right hand circuits required for night OPS RWY 09.

ACFT at opposite ends of RWY05/23 may not be visible to each other.

7.3.3. YYRM Airport Setup

Yarram- YYRM Cat 2

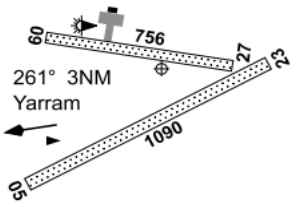


Activation Detail:

Aerodrome Reporting Officer:
Ph 0429 825 266

YARRAM **ELEV 60**

AVFAX CODE 3046



VIC UTC +10 YYRM
383403S 1464516E VAR 13 DEG E REG
AD OPR Wellington Shire Council, PO Box 506, Sale, VIC, 3850. PH 1300 366 244. ARO 0429 825 266: 03 5182 5266. Fax 03 5142 3501.

REMARKS

AD Charges: RA Aus registered aircraft exempt. Current fees and conditions of use can be obtained FM AD OPR or www.wellington.vic.gov.au/yarramaerodrome

HANDLING SERVICES AND FACILITIES

AVGAS AVBL 24HR. Payment via IOR QuickPay app only. Contact IOR Aviation, phone 1300 457 467.

Official copy located in EDMS. Unstamped, printed copies are UNCONTROLLED documents and MAY NOT BE CURRENT

Airport information:	
Approved loading area	TBD
Access to loading area	TBD
Water supply	TBD
Jet A1 fuel	Yes (See ERSA details above)
Access to office facilities	Yes
3G & 4G Reception	TBD
Wifi Available?	TBD
Access to welfare buildings	TBD

7.4. Warrnambool Airport – YWBL

The Warrnambool Airport is located 6 nautical miles northwest of Warrnambool, Victoria in Australia.

Warrnambool Regional Airport is owned and operated by the Warrnambool City Council and is registered under Civil Aviation Safety Regulation (CASR) subpart 13.6.C Registered Airports.

The airport has 16 hangars on site accommodating both business and recreational aircraft. The airport is home to Ambulance Victoria, Helicopter Emergency Medical Services (HEMS 4). The airport averages about 40 aircraft movements daily with General Aviation Maintenance (Courier Service) and Ambulance Victoria fixed wing aircraft daily users.

Warrnambool Regional Airport is categorised as a "Security Controlled Airport" under the Aviation Transport Security Act 2004 and Regulations 2005 and operates on an Airport Security Identification Card (ASIC) switch on, switch off program. Only persons with a lawful reason are to access the "Airside Area" of the Warrnambool Regional Airport and must display a valid "Airport Security Identification Card" ASIC, at all times.

7.4.1. YWBL Contact Details

Warrnambool City Council

- Phone: (03) 5559 4800
- Fax: (03) 5559 4900
- Email: contact@warrnambool.vic.gov.au

Airport Reporting Officers, ARO

- Phone: (03) 5559 4970
- Mobile: 0417 338 162

Pilot Training and Aircraft Charter, Avalon Air Services, Victorian base, Ford Concourse, Warrnambool Airport, VIC 3275

- Phone: 0407 921 023
- Email: warrnambool@avalonaorservices.com.au

Refuelling Agents, AIR BP

- Phone: 03 4504 2159
- Email: info@warrnamboolaviation.com.au

7.4.2. YWBL Local Information

Limited PRKG AVBL for ACFT ABV 5,700KG MTOW

Due to grades on RWY 13/31 and RWY 04/22 the opposite ends of the RWY are not visible when taking off.

Bird hazard exists.

Seasonal aerial spraying OPS.

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7.4.3. Airport Setup

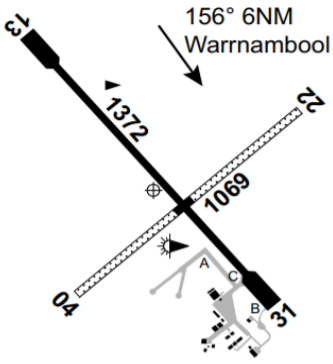
Warrnambool - YWBL Cat 1



Activation Detail:

Aerodrome Reporting Officer:
Ph 0417 338 162

WARRNAMBOOL **ELEV 242**
AVFAX CODE 3012



VIC UTC +10 YWBL
381743S 1422648E VAR 11 DEG E REG
AD OPR Warrnambool City Council, PO Box 198, Warrnambool, VIC, 3280. Email: contact@warrnambool.vic.gov.au. ARO 0417 338 162: 0437 693 811. Council PH 03 5559 4800: H24 0401 988 659.

REMARKS
This AD is a Security Controlled Airport.
AD NOT AVBL to ACFT ABV 5,700KG without prior permission.

HANDLING SERVICES AND FACILITIES
AIR BP - Warrnambool Aviation: H24 AVGAS and JET A1 Cardswipe bowsers - Air BP card only. Cash by prior arrangement only, surcharges and call out fees apply. Phone 03 4504 2159, email: info@warrnamboolaviation.com.au.

Airport information:	
Approved loading area	TBD
Access to loading area	TBD
Water supply	TBD
Jet A1 fuel	Yes (See ERSA details above)
Access to office facilities	Yes
3G & 4G Reception	TBD
Wifi Available?	TBD
Access to welfare buildings	TBD

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8. ICS 204 – Assignment List Tasking Form

Assignment List, ICS Form 204

1. BRANCH Air Operations Branch	2. DIVISION/GROUP	**ASSIGNMENT LIST**
3. INCIDENT NAME Aerial Surveillance and Monitoring Services	4. OPERATIONAL PERIOD DATE _____ TIME _____	

5. OPERATIONAL PERSONNEL

OPERATIONS CHIEF	_____	DIVISION/GROUP SUPERVISOR	_____
BRANCH DIRECTOR	_____	AIR TACTICAL GROUP SUPERVISOR	_____

6. RESOURCES ASSIGNED TO THIS PERIOD

STRIKE TEAM/TASK FORCE/ RESOURCE DESIGNATOR	EMT	LEADER	NUMBER PERSONS	TRANS. NEEDED	PICKUP PT./TIME	DROP OFF PT./TIME

7. CONTROL OPERATIONS

Undertake daily over target area using rotary aircraft in daylight hours only.	Aerial observer to contact the Aviation Operations Branch Director at approximately 1500hrs the day prior of departure to confirm details of flight. At arrival at airport, the aerial observer will contact the aircraft supplier or Airbase Branch Director to arranged for transportation through the airport if required. This can either be done direct or through the gate house. Pre-flight briefing to include mission for the day, weather forecast, helicopter safety procedures, radio communications and any safety related issues or concerns. Prior to immediate departure, the Aerial Observer will contact the Aviation Operations Branch Director and advise that they are departing the airport. Information to be exchanged: 1. Departure time 2. Expected arrival time over target area 3. Expected return time back to airport.	Daily
Whilst in flight over target area	• Observe, monitor, and record any observations with photos and videos. • Observe any commercial activity within the target area, record any observations of wildlife or anything that may impact safety to any	Daily

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	response personnel or the community.	
Upon return to airfield	Inform the Aviation Operations Branch Director of safe arrival. Provide aerial observation report to Aviation Operations Branch Director including relevant observations, photos, map and flight track.	Upon return to nominated airfield and report by 1300 daily via email
Use of UAVs (Drones) within target area (if applicable).	Any early morning UAV flights to be finished by 0730 with a ceiling height of 400ft.	Daily

8. SPECIAL INSTRUCTIONS

9. DIVISION/GROUP COMMUNICATIONS SUMMARY

FUNCTION		FREQ.	SYSTEM	CHAN.	FUNCTION		FREQ.	SYSTEM	CHAN.
COMMAND	LOCAL				SUPPORT	LOCAL			
	REPEAT					REPEAT			
DIV./GROUP TACTICAL					GROUND TO AIR				

PREPARED BY (RESOURCE UNIT LEADER)	APPROVED BY (PLANNING SECT. CH.)	DATE	TIME

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9. Mission Plan and Brief

The below mission plan and briefing template is used by the Airbase Manager on a daily basis as a way of providing all personnel with information relating to the upcoming operational period. It is important to have a templated briefing tool available to ensure that consistent information is given to all personnel involved, and daily activities are conducted safely.

<table>
<tr><td colspan="3">AIRBASE: <AIRFIELD NAME></td></tr>
<tr><td>INCIDENT TYPE:
INCIDENT NAME:
INCIDENT LOCATION:
BEARING/DISTANCE FROM AIRBASE TO INCIDENT LOCATION:</td><td>OPERATIONAL PERIOD
DAY:
DATE:</td><td>TIME
FROM:

TO:</td></tr>
<tr><td colspan="3">WEATHER</td></tr>
<tr><td>Current</td><td colspan="2">• Sea state
• Minimum and maximum temperatures. ^{0}C
• Wind speed and direction, surface and 2000ft
• Relative humidity
• Current area QNH
• Other information</td></tr>
<tr><td>Forecast Changes</td><td colspan="2">• Time of Change
• Sea state
• Minimum and maximum temperatures.
• Wind speed and direction, surface and 2000ft
• Relative humidity
• Current area QNH
• Other information</td></tr>
</table>

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SMEACS	
SITUATION *Deliver at the pace of the slowest notes taker.* *What is happening now,* *Who is there now,* *What are they doing,* *Other agencies*?	***"Please take notes and save all questions until I finish the briefing"***
MISSION *A concise single purpose statement of the overall incident objective*	**To:** *Support the ConocoPhillips by way of aerial surveillance and monitoring services.*
EXECUTION .	**Groupings and Tasks** **Air Observation Group** *Undertake mapping of any observations and report on conditions.* *Other tasks as directed*

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<table>
<tr><th colspan="6">SMEACS</th></tr>
<tr><td>EXECUTION</td><td colspan="5">Air Ops Ground Crew Group
Manage refuelling for aircraft when appropriate.</td></tr>
<tr><td rowspan="5">TIMINGS</td><td colspan="3">ACTION</td><td colspan="2">TIME</td></tr>
<tr><td colspan="3">Flying to target area</td><td colspan="2">XX mins</td></tr>
<tr><td colspan="3">Observation time on site</td><td colspan="2">XX mins</td></tr>
<tr><td colspan="3">Flying from target area back to base</td><td colspan="2">XX mins</td></tr>
<tr><td colspan="3">Total time per sortie</td><td colspan="2">XX mins</td></tr>
<tr><td rowspan="13">ADMIN & LOG</td><td colspan="5">Resources</td></tr>
<tr><td colspan="5">Aircraft</td></tr>
<tr><td>Role</td><td>Rego</td><td>Type</td><td>Pilot</td><td>Contact (Mob)</td></tr>
<tr><td>Aerial Observer</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="5">Key Personnel</td></tr>
<tr><td colspan="2">Role</td><td colspan="2">Name</td><td>Contact (Mob)</td></tr>
<tr><td colspan="2">Aviation Coordinator</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">Airbase Manager</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">Air Observer</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">Aircraft Loader</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td rowspan="4">COMMAND & COMMUNICATION</td><td colspan="2">From</td><td colspan="2">To</td><td>Method</td></tr>
<tr><td colspan="2">AOB</td><td colspan="2">Airbase</td><td>Dedicated C-TAF:
Over 100 NM Sat phone:</td></tr>
<tr><td colspan="2">Airbase</td><td colspan="2">Local air traffic</td><td>Aerodrome C-TAF:</td></tr>
<tr><td colspan="2">Airbase</td><td colspan="2">Airfield Operations</td><td>Selected UHF CB Ch:</td></tr>
</table>

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SMEACS	
SAFETY	*The airbase manager (Airbase Group Supervisor) will confirm the serviceability and sign off on the aircraft sea survival equipment, confirm all personnel have appropriate training currency, ensure a Hazard Risk Assessment has been completed and all personnel aware of outcomes and address any other safety issues.*

10. Secondary Airbase Considerations

10.1. Smithton Airport – YSMI

Smithton Airport is a small Australian regional Airport. Located on Tasmania's North-West tip. Smithton is just a 30-minute flight from King Island and a 1-hour flight from Moorabbin in Victoria.

The airport is operated by the Tasmanian Department of Infrastructure, Energy and Resources.

The airport has a number of tenants including:

- J.M.M. Pty Ltd trading as King Aviation.
- Tasmanian Seafoods Pty Ltd.
- Lloyd Kay trading as Bell Ultralight Aviation.
- Paul Murphy.

10.1.1. YSMI Contact Details

- Address: 347 Montagu Rd, Smithton, Tasmania
- Phone: 0412 203 439
- Email: info@smithtonairport.com.au

10.1.2. YSMI Local Information

Bird hazards exist.

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10.1.3. Airport Setup

Smithton – YSMI



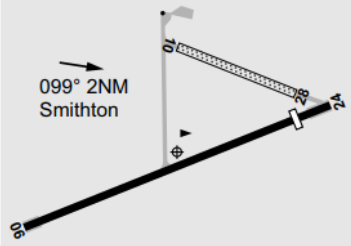
Activation Detail:

Aerodrome Reporting Officer:

Ph 0412 203 439

SMITHTON **ELEV 31**

AVFAX CODE 7008 **FULL NOTAM SERVICE NOT AVBL**



TAS		UTC +10	YSMI
405006S	1450501E	VAR 13 DEG E	UNCR

AD OPR General Manager, Roads & Public Transport, DIER, GPO Box 936, Hobart, TAS, 7001. PH Smithton 03 6452 1153: Hobart 6233 3613. Fax Smithton 03 6452 1153: Hobart 6233 2785.

REMARKS

AD Charges: All ACFT refer to AD OPR for details.

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Appendix 1. Communication and Frequencies for Operations

Below is a template for a summary of all communication & frequencies which should be used by the Airbase Manager and the IMT to ensure efficient communications can be made with all personnel involved in the surveillance operation. This communications list should be posted in clear view at the airfield so that everyone can access it when required.

LOCATION/RESOURCE	OFFICER	CONTACT NUMBERS
Air Base *(name)*	Airbase Manager *(Name)* AMOSC *(Name)*	Landline: Fax: BGAN: Mobile Sat Phone: Mobile:
Airfield Operations Emergencies First Aid Airfield Logistics	Duty Officer (Name)	Land/Mobile No:
Emergency services	(Nearest Location)	(Phone No.)
Helicopter company	(Contact Name)	(Phone No.)

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Appendix 2. Communications Plan

This section is to be used to develop a communications plan which will clearly highlight what technology, frequency, or number is needed to allow for effective communication across all areas relating to an offshore surveillance operation.

Whenever an incident occurs in a remote offshore location, communications can be challenging. By developing this plan, communication between the IMT, the FOB and the operating aircraft can be identified and documented.

There are three distinct communication zones:

- The IMT
- The Airbase
- The Offshore Operations (Operational Aircraft)

By using the below matrix, primary and secondary communication methods can be established.

	The IMT	The Airbase	Offshore Operations
The IMT	Primary: Voice Secondary: Mobile Phone/UHF Radio	Primary: Mobile Phone Secondary: Satellite Phone	N/A
The Airbase	Primary: Mobile Phone Secondary: Satellite Phone	Primary: Voice Secondary: Mobile Phone/UHF Radio	Primary: Airband VHF Radio Secondary: Satellite Phone
Offshore Operations	N/A	Primary: Airband VHF Radio Secondary: Satellite Phone	Primary: VHF Headset Secondary: Voice

Once communication lines have been established between the IMT, the Airbase and the Operational Aircraft, the airbase manager will complete an ICS Form 205 and 205a to record all communication paths.

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name:	2. Date/Time Prepared: Date: Time:	3. Operational Period: Date From: Date To: Time From: Time To:

4. Basic Radio Channel Use:

Zone Grp.	Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks

5. Special Instructions:

6. Prepared by (Communications Unit Leader): Name: _____ Signature: _____

ICS 205 | **IAP Page** ____ | Date/Time: _____

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COMMUNICATIONS LIST (ICS 205A)

1. Incident Name:	2. Operational Period: Date From:	Date To:
	Time From:	Time To:

3. Basic Local Communications Information:

Incident Assigned Position	Name (Alphabetized)	Method(s) of Contact (phone, pager, cell, etc.)

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Appendix 3. Safety Risk Assessment (AMOSC)

Column Descriptions

Column A	Hazard ID#. Unique identifier for each identified hazard.
Column B	Location of hazard.
Column C	The activity to be carried out. Do not fill in names of machines/equipment to be used (i.e. a computer is not an activity, but working on a computer is)
Column D	Select from the drop down list the type of hazard associated with the activity to be carried out. i.e., Physical, Chemical, Ergonomic, Environmental, Electrical.
Column E	More specific detail of hazard e.g. Environment - over exposure to extreme temperatures
Column F	Identify possible consequences/effects accidents/ill health associated with each identified hazard (e.g. fires, explosions, cuts, burns, frost bites, fractures etc).
Column G	Inherent Risk Rating. The risk that an activity would pose if no controls or other mitigating factors were in place (the gross risk or risk before controls) Likelihood - see matrix section below.
Column H	Inherent Risk Rating. The risk that an activity would pose if no controls or other mitigating factors were in place (the gross risk or risk before controls) Consequence - see matrix section below.
Column I	Inherent Risk Rating. The risk that an activity would pose if no controls or other mitigating factors were in place (the gross risk or risk before controls) Risk = Likelihood x Consequence. Calculated automatically and cell will change colour based on risk rating
Column J	Risk control measures that are in place to eliminate or minimise risks. Methods to control risks may be analysed according to the Hierarchy of Controls: Elimination, Substitution, Engineering Controls, Administrative Controls and Personal Protective Equipment (PPE). Elimination of the hazard should take first priority while PPE should be the last line of defence. Elimination (e.g. Use water-based solvents instead of organic based solvents); Substitution (e.g. Use a less toxic solvent); Engineering Controls (e.g. Use of fume cupboard or gloves boxes); Administrative Controls (e.g. Work instructions, good practices, training); PPE (e.g. Use of safety eyewear plus respirator, use of gloves).
Column K	Residual Risk. The risk that remains after controls are considered (the net risk or risk after controls). Likelihood - see matrix section below.
Column L	Residual Risk. The risk that remains after controls are considered (the net risk or risk after controls). Consequence - see matrix section below.
Column M	Residual Risk. The risk that remains after controls are considered (the net risk or risk after controls). Consequence - see matrix section below Risk = Likelihood x Consequence. Calculated automatically and cell will change colour based on risk rating
Column N	Enter the name of the person appointed to oversee the implementation of the additional control measures.

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Risk Matrix Tool

Risk Matrix Based on AS/NZ ISO 31000				Consequence/Impact/Severity				
				Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
				No injuries	First aid treatment	Medical treatment required	Extensive injuries	Death
				1	2	3	4	5
Likelihood/Probability	Frequent (5)	Almost Certain	A	5	10	15	20	25
	Likely (4)	Will probably occur in most circumstances	B	4	8	12	16	20
	Possible (3)	Might occur at some time	C	3	6	9	12	15
	Unlikely (2)	Could occur at some time	D	2	4	6	8	10
	Rare (1)	May occur only in exceptional circumstances	E	1	2	3	4	5

1 to 2	Risk Acceptable	There are no imminent dangers. Frequent review shall be in place especially changes in procedures, materials or environment.
3 to 6	Review Task before proceeding	Proceed with care. Additional control is advised.
7 to 14	High Risk Task	Proceed with extreme caution. Implement additional (secondary) controls if possible.
15 to 25	Operation not permissible	Stop operation and review controls. If necessary abort task.

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Risk Assessment

Hazard ID #	Hazard Identification					Inherent Risk Rating (pre-controls)			Risk Control	Residual Risk (post controls)			
#	Location	Work Activity / Task / Hazard Source	Hazard Type	Hazard	Effects / Consequences	Likelihood (L)	Consequence (C)	Risk = LxC	Risk Control	Likelihood (L)	Consequence (C)	Risk = LxC	Person Responsible
SURV-1-1	On water / over water activities	Normal Flight Operations	Physical	Aircraft Ditching, Engine failure, Fuel exhaustion, Structural Failure	Personal Injury or death	2	5	10	Daily pre-flight inspections of all aircraft, Thorough flight planning.	1	5	5	**Pilot**
SURV-1-2	Airfield / Airbase	Normal Flight Operations	Physical	Aircraft accident within airbase/airfield boundary	Personal Injury or death	3	5	15	Communication with control tower. Communication with emergency services on field. Secure Site. Appropriate reporting procedures to authorities.	1	5	5	**Pilot, Airfield Operator, AGS**
SURV-1-3	Airbase / Airfield / Operational Flying / Over water	Normal Flight Operations	Physical	Pilot disorientation, Incapacitation	Personal; Injury or death	2	3	6	Accurate weather reports before departure. Ground crew monitoring pilot. Pilot has current medical. Self-monitoring by Pilot. Fatigue management.	1	3	3	**AGS, Pilot**
SURV-1-4	Airbase / Airfield / Operational Flying / Over water	Normal Flight Operations	Physical	Communications Failure	Personal injury, Failure of equipment	2	2	4	Pre-flight testing of the system. Use of aircraft secondary navigation systems, second GPS, second VHF channel, TracPlus units, Returning to NOB	1	2	2	**AGS, Pilot**
SURV-1-5	Airbase / Airfield / Operational Flying / Over water	Normal Flight Operations	Physical	Emergency Equipment non-operational	Personal injury or death, Failure of equipment	2	5	10	Pre-flight inspection of sea survival equipment. Top cover for SAR purposes and surface vessel SAR. Pilot to wear lifejacket and personal EPIRB whilst operational. Quarterly equipment checks. Equipment serviced as per manufacturer's instructions.	1	5	5	**AGS, Pilot**
SURV-1-6	Airbase / Airfield / Operational Flying / Over water	Normal Flight Operations	Physical	Extreme weather events	Personal Injury or death	3	5	15	Up to date and accurate weather reports and regular monitoring. Identify a secondary airfield as an alternate landing strip.	1	5	5	**AGS, Pilot**

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Hazard ID #	Hazard Identification					Inherent Risk Rating (pre-controls)			Risk Control	Residual Risk (post controls)			
SURV-1-7	Airbase / Airfield	Normal Refuelling Operations	Chemical / Physical	Aircraft fire on the ground	Personal Injury or death, environmental damage, infrastructure damage, equipment damage	2	5	10	Shutdown aircraft before refuelling. Refuel by qualified airfield personnel. Pilot to supervise refuelling. Pilot to exit aircraft whiles refuelling in progress. Fire extinguisher on hand at all times. Emergency contact phone number for airfield emergency services.	1	5	5	**AGS, Pilot**

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Appendix 4. Positional Responsibilities Role Descriptions

Aviation Operations Branch Director (AOBD)

- Interpret the incident controller's intent for surveillance.
- Liaise with operations unit – air operations branch.
- Liaise with logistics unit for aviation support requirements.
- Assess the available response assets and any limitations (maintenance, Crew, logistics, weather) that may impact tasking.
- Generate the surveillance flying program to meet IMT planning section intelligence requirements.
- Generate the Air Data Computer (ADC) flying program for maximum coverage in conjunction with the aircraft pilot.
- Assess SAR requirements and in liaison with the air operations branch, generate SAR aircraft standby and flying program to provide coverage for surveillance operations.
- Generate any logistical support missions as required.
- Help generate the Air Task Order (ATO) and flying program.
- Issue ATO and flying program to the AGS.
- Assemble aviation surveillance operations activity brief for the IC.

Air Base Group Supervisor (AGS)

- Receive taskings / flying program details from the AOBD.
- Brief airfield ARO and airfield fuel suppliers of 72-hour requirements.
- Ensure aviation fuel stocks are suitable for 72-hour forecast activities.
- If required, liaise with airfield ARO and the AOBD to ensure that the aviation fuel requirements are met.
- Notify IMT of all SARTIME overruns and initiate the emergency response plan if required.
- Monitor airfield suitability and report any issues to the IMT as required (i.e. security, airfield congestion, etc).
- Report any airfield stakeholder issues to the IMT.
- Compile and report daily and weekly reports as required to the IMT.

Surveillance Pilot

- Receive tasking information from the AGS.
- Plan flight to arrive at the operational area as per tasking order.
- Submit a flight plan for the flight.
- Nominate SARTIME with the AGS.
- Maintain safety of the flight.
- Conduct operations as required by the aerial observer.
- Participate in debriefing activities post flight with the AGS and IMT
- Compile and report post flight activities to the AGS including:
- Total hours flown,
- The status of the crew,
- Any safety breaches,
- Any administration or logistical issues.

Aerial Observer

- Receive tasking information from the AGS.
- Attain the most recent information from the IMT planning section.
- Plan the flight with the pilot to arrive onsite as tasked.
- Conduct observation operations as tasked.
- Participate in debriefing activities post flight with the AGS and IMT.
- Compile and report post flight activities including:

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- Total hours flown,
- Results of the operation,
- Any safety breaches,
- Any administration or logistical issues.

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Shoreline Plan

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ConocoPhillips

Australia Business Unit

Otway Exploration Drilling Program
Shoreline Protection and Clean-up Plan

ABU2-000-EN-V01-D-00006

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Revision Detail

Rev Number	Date	MOC Number	Author	Approver
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Abbreviations and Definitions	
AMOSC	Australian Marine Oil Spill Centre
AMOSPlan	Australian Marine Oil Spill Centre Plan
AMSA	Australian Maritime Safety Authority
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
COP	ConocoPhillips
EP	Environment Plan
EPA	Environmental Protection Agency
GIMAT	Global Incident Management Team
HP	High Pressure
IBA	Important Bird Area
IBC	Intermediate Bulk Container
ICS	Incident Command System
IMT	Incident Management Team
KI	King Island
LGA	Local Government Area
LOWC	Loss of Well Control
LP	Low Pressure
MDO	Marine Diesel Oil
NEBA	Net Environmental Benefit Analysis
NOAA	National Oceanic and Atmospheric Administration
NRT	National Response Team
NY	New Year (Island)
OPEP	Oil Pollution Emergency Plan
PFD	Personal Flotation Device
PPE	Personal Protective Equipment
ROP	Roll Over Protection
SA	South Australia
SCAT	Shoreline Clean-up & Assessment Technique
SIMA	Spill Impact Mitigation Assessment
SMV	Surveillance, Monitoring and Visualisation
STR	Shoreline Treatment Recommendation
STRG	Shoreline Treatment Recommendation Guide
TAS	Tasmania
TRP	Tactical Response Plan
UHF	Ultra-High Frequency
UTV	Utility Terrain Vehicle
VHF	Very High Frequency
VIC	Victoria

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1. Purpose

The purpose of this Shoreline Protection and Clean-up Plan is to describe the arrangements that ConocoPhillips Australia has in place to prepare for and respond to shoreline impact of a hydrocarbon release during the Otway Exploration Drilling Program (the activity or exporation program).

2. How to use this Plan

This plan supports Section 4.3 (Shoreline Response: Protection and Deflection) and Section 4.4 (Shoreline Response: Shoreline Clean-up) of the ConocoPhillips Australia Oil Pollution Emergency Plan (OPEP) for the exploration program.

Each section of this document and the supporting appendices have been drafted to expedite the implementation of appropriate shoreline response operations.

In the event of a spill and upon awareness of the potential for shoreline contact, the incident management team can use the function-specific sections of this document (Section 3) to guide shoreline response – including tactics/tasks, resources and logistics.

This plan should be used in conjunction with the Environment Protection Authority (EPA) Tasmania – First Strike Plan for King Island, and the Victorian State Maritime Emergencies (non-search and rescue) Plan.

3. Shoreline Protection and Clean-up Strategy

Shoreline protection and deflection and shoreline clean-up have been identified through a feasibility and effectiveness assessment as proposed response strategies for both an marine diesel oil (MDO) and a gas condensate release. These strategies should be deployed where safe to do so and where the Net Environmental Benefit Analysis (NEBA) indicates the strategy will result in net environmental benefit. Should the response or the spill impact state waters (within 3 nm of the coastline), the shoreline response will be under the control of the relevant state control agency with ConocoPhillips Australia providing equipment and personnel support as required.

Oil spill modelling shows the probability of shoreline contact by hydrocarbon released during a worst-case credible discharge varies depending upon the season and the relative wind and sea conditions. The geographic boundaries of potential oil stranding sites extend from the SA/Victorian Border to Wilsons Promontory and King Island. Further modelling detail is available within the OPEP Section 2.3

In order to mount an effective and timely response to a potential shoreline impact, extensive work has been done to clearly define what clean-up strategies should be employed based on the location of the shoreline impact. The location of the shoreline impact triggers either a Tactical Response Plan (TRP) activation, or a Shoreline Treatment Recommendation (STR) implementation. The shoreline response process is outlined in Figure 1.

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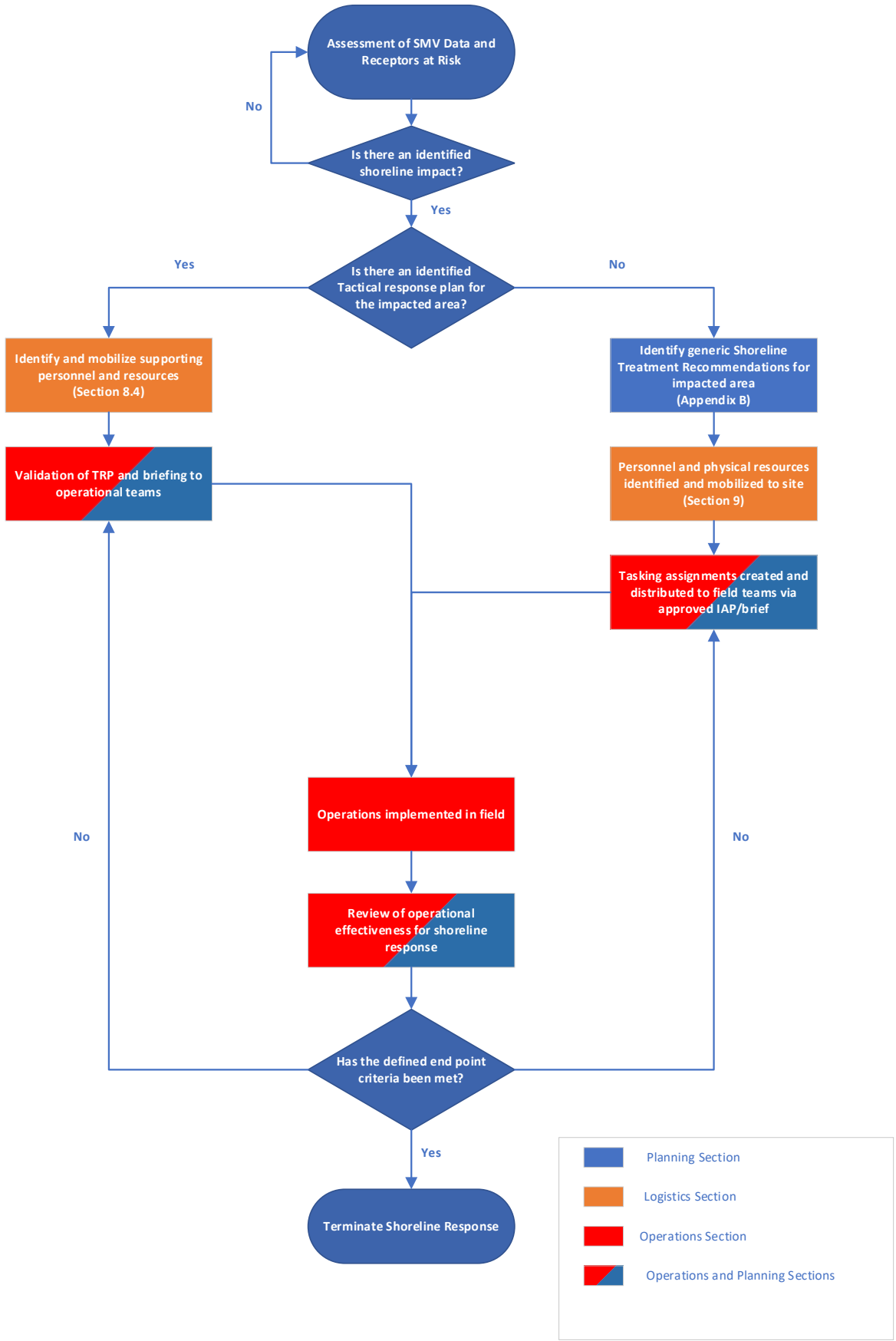


Figure 3-1: Shoreline response flowchart

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4. Shoreline Command Structure

Shoreline response field operations can scale up quickly to involve large numbers of responders and supporting equipment and logistics. This requires effective planning, operational support and communication across the Incident Management Team, Forward Operating Base(s) and Field Teams.

For ConocoPhillips Australia's exploration activity, oil spill modelling indicates the potential for shorelines to be impacted at moderate thresholds at King Island, Tasmania and along the Victorian coastline, requiring the need for cross-jurisdictional response arrangements. Further details around these arrangements are outlined in Sections 2.7.2 – 2.7.5 of the OPEP for the exploration program.

5. Tactical Implementation

This section provides Tactical Response Plans (TRPs) for the identified 'high priority' shoreline sites along the Victorian and King Island coastlines. A Shoreline Treatment Recommendation Guide (STRG) is also included as a supporting resource (Appendix 1) along with pre-determined sectorisation and segmentation mapping.

5.1. Sectorisation and Segmentation

The shoreline from Nelson to Cumberland River (including Deen Maar (Lady Julia Percy Island), Inverloch to South Point (including surrounding islands off the Wilsons Promontory National Park) and the Western Side of King Island has been identified in the modelling as having a potential to be impacted by a hydrocarbon spill. This stretch of coastline has been divided in to eight sectors for the purpose of this Shoreline Protection and Clean-up Plan. The geographic scope and sectors are illustrated in Figure 5-1.



Figure 5-1: Geographic scope and sectors of this plan

Sector A – Glenelg	Sector B – Moyne
Sector C – Warrnambool	Sector D – Moyne 2
Sector E – Corangamite	Sector F – Colac-Otway
Sector G – South Gippsland	Sector H – King Island

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The eight sectors are further divided into operational segments to assist with site identification and tactical response planning found in Table 5-1.

Several parameters were taken into consideration during the segmentation process, these include substrate type, sensitive receptors (ecological, sociological, and economic), population, access and egress, proximity to key sites, distance between segments and bodies of water (embayment's, estuaries, rivers).

The sectorisation and segmentation of the coastline was completed in Google Earth Pro. Sector layers have been prepared and are available in KMZ/KML format via Australian Marine Oil Spill Centre (AMOSC).

Table 5-1: Shoreline segmentation – primary details

Sector Reference	Total Segments	West Segment	West Coordinate	East Segment	East Coordinate
A: Glenelg	91	NEL-10	38°3'22.43"S 140°57'57.30"E	CDT-06	38°15'53.27"S 141°52'18.77"E
B: Moyne	37	CDT-06	38°15'53.27"S 141°52'18.77"E	WNB-09	38°22'12.59"S 142°25'7.70"E
C: Warrnambool	13	WNB-08	38°22'12.59"S 142°25'7.70"E	MPG-05	38°27'1.14"S 142°36'32.08"E
D: Moyne 2	28	MPG-05	38°27'1.14"S 142°36'32.08"E	PTB-05	38°36'36.95"S 142°53'16.10"E
E: Corangamite	36	PTB-05	38°36'36.95"S 142°53'16.10"E	CVN-02	38°45'20.57"S 143°17'35.81"E
F: Colac-Otway	62	CVN-02	38°45'20.57"S 143°17'35.81"E	TSI-03	38°34'49.59"S 143°56'43.95"E
G: East Gippsland	124	INV-05	38°38'9.69"S 145°43'53.08"E	WEL-09	38°42'13.60"S 146°25'45.56"E
H: King Island inc Christmas and New Year Island.	646	KI01	39°56'7.27"S 143°50'26.27"E	KI526	39°56'7.24"S 143°50'26.09"E

5.2. Areas of Senstivity

As outlined in the Environment Plan (EP) for the Otway Exploration Drilling Program, ConocoPhillips Australia have identified the following key coastal areas listed in Table 5-2 as areas of high sensitivity in the event of a large accidental release of hydrocarbons.

Table 5-2: High sensitivity coastal locations

ID	Location
VIC080	Shallow Inlet Marine & Coastal Park
VIC062	Anderson Inlet
VIC158	Aire River
VIC075	Lower Merri River Wetlands
VIC028	Glenelg Estuary
VIC030	Long Swamp
VIC066	Corner Inlet
VIC093	Princetown Wetlands
VIC091	Lower Aire River Wetlands
VIC084	Yambuk Wetlands
VIC159	Glenelg River
Victorian Cultural Heritage Sites	
Tasmanian Cultural Heritage Sites (inc. King Island)	
King Island Important Bird Area (IBA)	

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The scale of the coastline in which the above areas are located is extensive. The shoreline type, key sensitive receptors and access/egress all vary significantly and subsequently so do the suitability of shoreline response options.

On review of the affected Local Government Areas (LGAs) and high sensitive coastal locations, the criteria within Table 5-3 was used to identify the requirement to develop a Primary or Secondary TRP.

Table 5-3: Selection criteria for primary and secondary tactical response plan development

Identified sensitivities to protect.	Response is logistically feasible.	Response is achievable with good chance of success.
Area of high sensitivity and/or long recovery time; or	Accessible by existing roads, tracks or vessels (Min. 4wd drive and pedestrian access)	No more than 5 boom sets of 250m each required (<1.25 km booming); and
Area of high cultural, local or national significance; and		Potential for calm water; and
Where the use of this area will be significantly affected by the presence of oil.		Probability of current flows being slow enough.

6. Tactical Response Plans

TRPs have been prepared for sites along the coastline in all the affected LGA's outlined in Section 3.1. Figure 6-1 shows the TRP decision guide used to determine the type of TRP is developed, being either a:

Primary TRP – for sites which meet the criteria outlined in Section 5.2, and therefore have a tactical response plan prepared which includes site specific details, response tasks, site setup plans, concept of operations and a full resource inventory; or

Secondary TRP – for sites which only partially meet the criteria outlined in Section 5.2. Their status indicates they are not significantly at risk to the impact of a hydrocarbon release; however, conditions could change which would require immediate attention for shoreline response planning. A tactical response plan for secondary sites focuses on site details and response initiation.

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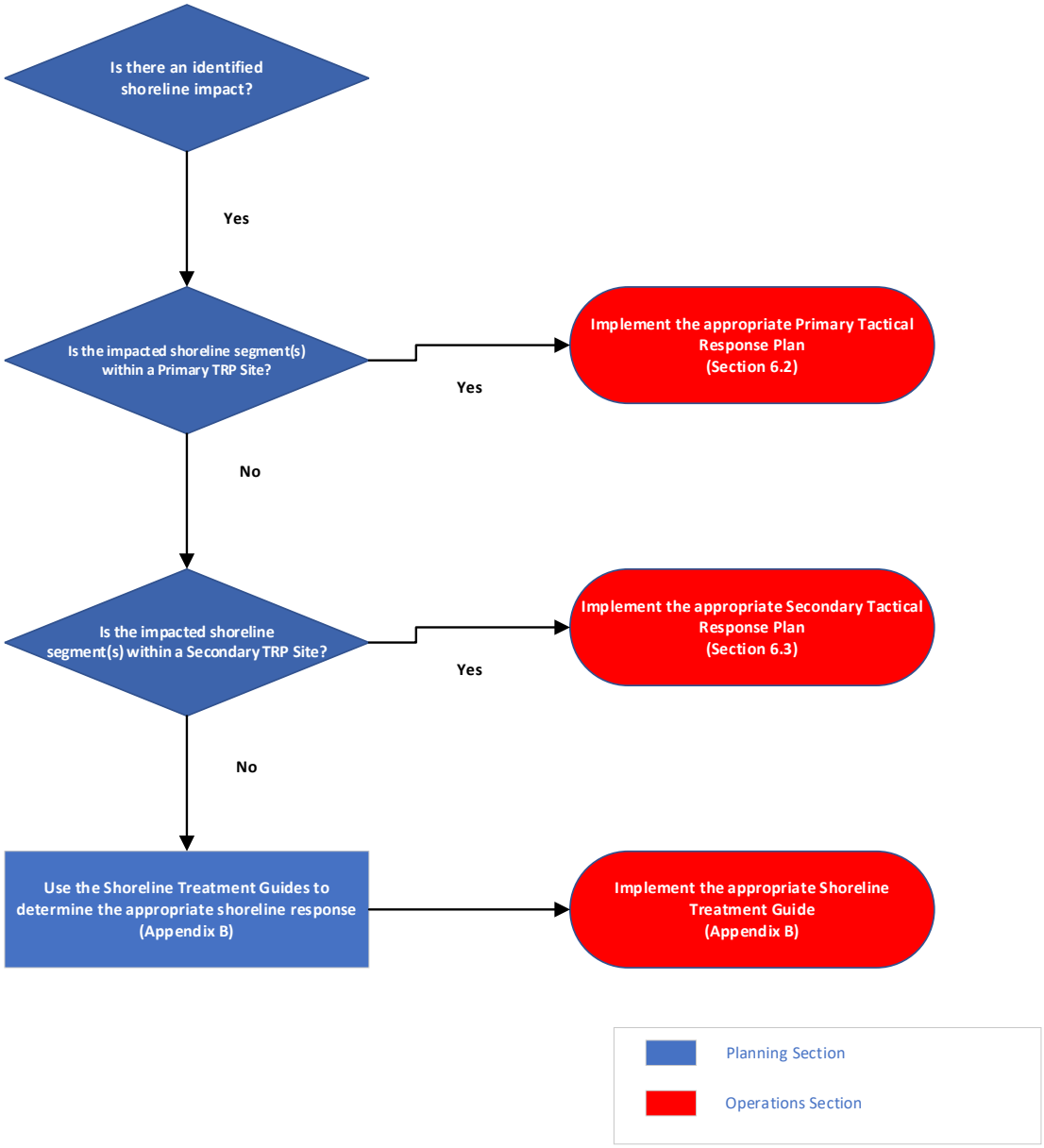


Figure 6-1: TRP development decision guide

6.1. Sites of First Nations Peoples Cultural Significance

Tasmania and Victoria have a rich and varied Indigenous Heritage. It is understood that there are likely to be sites along the affected areas that are important for social, spiritual, historical, and commemorative purposes.

Access to data identifying the location and reasoning behind these areas is limited due cultural sensitivity of the sites and traditional landholders' preference to keep sacred sites within their own people.

Prior to the implementation of any shoreline deflection, protection, or clean-up, it is recommended that a cultural heritage advisor with specific knowledge of a given region is identified and incorporated into the planning section of the Incident Management Team (IMT).

Further situational information and mapping of cultural heritage sites of significance will need to be developed in the event of an incident, beyond what has been presented in this plan.

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6.2. Primary TRP Sites

The 23 sites in Table 6-1 have been identified as 'High Priority' for shoreline response. Primary TRPs have been developed for each site, with the following information included in the Primary TRPs:

- **TRP Reference** – sector, segment(s), coordinates,
- **Site Details** – site location image, site description, site access, site constraints, main sensitivities, and facilities/services,
- **Response Information** – response tasks, rationale, site reference and response checklist,
- **Site Setup** – schematic illustrating site zoning, control, waste, and decontamination,
- **Concept of Operations** - guide to response deployment including boom placement, anchoring and oil recovery (where appropriate),
- **Tactical Assignments** – response tasking and considerations, response personnel and communications,
- **Resources** – inventory of personnel, oil spill equipment, vehicles/vessels, and site support resources required, and
- **Personnel and Emergency Information** – to be populated prior to implementation.

For each TRP there is an electronic tactical response layer available for Google Earth Pro which identifies the TRP site and response operations.

All references to booming operations in the TRPs and electronic layers are for illustrative purposes only. Situational Awareness and response specific conditions will determine the appropriate angle and anchoring system required on the day.

Table 6-1: Primary TRP locations

	LGA Reference	TRP Name	Latitude	Longitude
Victoria	Glenelg LGA	Glenelg River Primary TRP	38° 3'34.76"S	140°59'22.54"E
		Portland Primary TRP Site	38°20'42.53"S	141°37'17.54"E
		Surrey River Primary TRP	38°15'34.68"S	141°42'4.86"E
		Fitzroy River Primary TRP	38°15'42.64"S	141°51'12.37"E
	Moyne LGA	Moyne River Primary TRP Site	38°23'21.55"S	142°14'55.94"E
	Warrnambool LGA	Merri River Primary TRP Site	38°24'2.60"S	142°28'18.98"E
		Hopkins River Primary TRP Site	38°24'7.93"S	142°30'32.38"E
	Moyne 2 LGA	Curdies Inlet Primary TRP Site	38°36'24.74"S	142°52'52.33"E
	Corangamite LGA	Port Campbell Creek Primary TRP	38°37'7.13"S	142°59'32.30"E
		Gellibrand River Primary TRP	38°42'19.06"S	143° 9'23.42"E
	Colac Otway LGA	Aire River Primary TRP	38°48'23.17"S	143°27'40.53"E
		Parker Inlet Primary TRP	38°50'43.05"S	143°33'40.03"E
		Barham River Inlet Primary TRP	38°45'45.23"S	143°40'30.92"E
		Apollo Bay Primary TRP Location	38°45'24.43"S	143°40'40.93"E
		Skenes Creek Primary TRP	38°43'29.06"S	143°42'39.95"E
		Kennet River Primary TRP Location	38°40'1.22"S	143°51'44.83"E
		Johanna River Secondary TRP Site	38°46'0.72"S	143°23'17.92"E
		Cumberland River Secondary TRP Site	38°34'34.26"S	143°56'55.64"E
		Wye River Primary TRP Site	38°38'4.74"S	143°53'28.79"E
	South Gippsland LGA	Port of Anderson Inlet Primary TRP	38°38'23.60"S	145°43'38.49"E
		Shallow Inlet Primary TRP	38°52'33.14"S	146°11'41.01"E
		Tidal River Primary TRP	39° 1'55.59"S	146°18'51.59"E
TAS	King Island LGA	Ettrick River Primary TRP	39°59'36.76"S	143°53'29.45"E

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6.3. Secondary TRP Sites

The 33 sites in Table 6-2 have been identified as secondary sites for shoreline response. Secondary TRPs have been developed for each site, with the following information included in the Secondary TRPs:

- **TRP Reference** – sector, segment(s), coordinates,
- **Site Details** - site location image, site description, site access, main sensitivities, and facilities/services,
- **Site Reference** – site reference image,
- **Response** – site response justification, response initiation tasks, actions required, site assessment checklist and local information.

For each TRP there is a tactical response layer available for Google Earth Pro which identifies the TRP site.

Table 6-2: Secondary TRP sites

	LGA Reference	TRP Name	Latitude	Longitude
Victoria	**Glenelg**	Lake Mombeong	38° 6'46.27"S	141° 7'13.64"E
	Moyne	Yambuk Lakes	38°20'17.43"S	142° 2'45.38"E
		Yambuk Coastal Reserve	38°16'14.69"S	141°54'15.61"E
		Belfast Coastal Reserve	38°20'55.39"S	142°22'4.91"E
	Warrnambool	*Nil Secondary Identified*		
	Moyne 2	Buckley Creek	38°29'42.35"S	142°41'7.26"E
	Corangamite	Sherbrook Creek	38°38'35.02"S	143° 3'26.26"E
	Colac Otway	Milinesia Creek	38°45'5.30"S	143°18'49.43"E
		Blanket Bay Creek	38°49'35.59"S	143°34'58.68"E
		Wild Dog Creek	38°44'8.91"S	143°41'1.90"E
		Smythe Creek	38°42'16.87"S	143°45'45.76"E
		Sugarloaf Creek	38°41'48.81"S	143°47'47.87"E
		Carisbrook Creek	38°41'34.67"S	143°48'34.29"E
		Grey River	38°40'57.31"S	143°50'22.21"E
		Jamieson Creek	38°35'46.86"S	143°55'9.06"E
	South Gippsland	Ten Mile Creek	38°49'24.29"S	145°53'39.92"E
		Morgan Creek	38°51'40.78"S	145°54'38.11"E
		Derby River	38°58'17.29"S	146°16'9.84"E
		Whiskey Creek	39° 0'45.70"S	146°17'31.22"E
		Squeaky Beach	39° 1'20.13"S	146°18'11.89"E
		Growler Creek	39° 3'36.80"S	146°20'44.03"E
		Frazers Creek	39° 4'16.47"S	146°20'36.43"E
		Freshwater Creek	39° 4'14.53"S	146°25'37.53"E
Tasmania	**King Island**	Edward Street Pier	39°55'38.01"S	143°50'34.96"E
		Badger Box Creek	39°57'55.40"S	143°52'25.32"E
		Unnamed Site	40° 3'44.60"S	143°52'54.48"E
		Eel Creek	39°45'2.42"S	143°51'14.86"E
		Big Lake Inlet	40° 6'54.97"S	143°56'44.53"E
		Camp Creek	39°55'24.19"S	143°50'38.99"E
		Three Rivers Creek	39°53'33.29"S	143°50'46.41"E
		Porky Creek	39°51'22.61"S	143°51'38.57"E
		Pass River	39°48'4.43"S	143°51'53.51"E
		Bungaree Creek	39°46'9.34"S	143°51'5.83"E
		Yellow Rock River	39°41'52.58"S	143°53'27.66"E

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7. Shoreline Clean-up and Assessment Technique

Shoreline Clean-up and Assessment Technique (SCAT) provides a systematic approach that uses standard terminology to collect data on shoreline oiling conditions. SCAT teams will evaluate oiling conditions factoring in shoreline types and environmental sensitivities and provide Shoreline Treatment Recommendations (STRs) and associated constraints. SCAT teams will collect the data needed to develop a Shoreline Clean-up Assessment Plan that will:

- Maximise recovery and enhance natural clean-up processes to the maximum extent practicable,
- Obtain the net environmental benefit, and
- Minimise the risk of further damage to habitats and resources from clean-up efforts.

During a response, SCAT would usually be undertaken by the Shoreline Assessment Group within the Environment Unit of the IMT.

This would occur concurrently with shoreline response activities, including pre-cleaning and protection of pre-determined locations. In the context of this plan this operating model is a guide and ConocoPhillips Australia would be responding under the guidance of the Victorian and/or Tasmanian control agencies, should it be requested.

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8. Logistics and Resourcing Arrangements

The logistics section describes the equipment and resources required to support the TRPs outlined above.

Logistical and support arrangements for the supply of equipment and resources will operate in a tiered approach as described in the following sections.

8.1. Local Response Resources

Local resources are those available in the state of Victoria or on King Island, Tasmania and can be used on short notice. This equipment may come from the Port Authorities, state agencies (Department of Transport and Planning Victoria, or EPA Tasmania) or access to locally available equipment from the Australian Maritime Safety Authority (AMSA) and AMOSC.

8.2. Regional Response Resources

Regional response resources are those that are available within Australia, these may require mobilisation time and can come from AMSA, AMOSC or via the AMOSPlan Mutual Aid arrangements with industry. Table 8-1 provides a general indication of road transport time for this equipment to be available in townships that may be close to response locations.

Table 8-1: Indicative equipment movements times – via road

Time (hrs)	Portland	Apollo Bay	Sandy Point	Tidal River	Currie*
Geelong	4	2	4	5	16
Melbourne	5	3	3	4	17
Devonport#	16	14	16	17	12
Adelaide	6	9	11	11	24
Sydney	13	12	11	12	26
Brisbane	22	21	20	21	28
Townsville	29	29	29	30	43
Fremantle	35	37	39	40	52
Exmouth	46	48	50	51	64
Broome	49	51	53	54	67

**Travel time to Currie includes vessel transit from the Port of Geelong.*

 # Travel time from Devonport includes transit to Port of Geelong (direct to Currie)

8.2.1. AMSA Resources

ConocoPhillips Australia have access to Australian Maritime Safety Authority (AMSA) equipment Australia wide through AMOSC and the National Plan. AMSA maintain significant stockpiles of equipment in Adelaide, Brisbane, Dampier, Darwin, Devonport, Fremantle, Melbourne, Sydney, and Townsville.

A live full inventory of AMSA equipment is available from the AMSA website:

https://amsa-forms.nogginoca.com/public/equipment.html

AMSA also administers the National Response Team (NRT). The purpose of the NRT is to provide a national incident management and field operations surge capacity to support Australian pollution response control agencies responding to major marine environmental incidents. The NRT is a core capability of the National Plan and comprises of 40 incident management team personnel and 42 field team leaders.

8.2.2. AMOSC Resources

ConocoPhillips Australia have access to Australian Marine Oil Spill Centre (AMOSC) equipment and resources Australia wide. Geelong based equipment can be mobilised to King Island in approximately 18 hours.

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Additional equipment in Fremantle, Exmouth and Broome can be mobilised to the Port of Geelong in approximately 40, 51 and 55 hours respectively. This includes an allowance of 4 hours for truck availability/sourcing and loading.

An overview of what equipment AMOSC has available is on the AMOSC website:

http://www.amosc.com.au/equipment.php

An inventory of AMOSC equipment is available in Appendix 2 of the OPEP with live readiness status and locations available via the members section of the AMOSC website with the login details provided to ConocoPhillips Australia of access to this information can be given by contacting the AMOSC Duty Officer directly:

https://amosc.com.au/member-login/

AMOSC also has access via the AMOSPlan to mutual aid equipment via its members. This equipment can be made available to ConocoPhillips Australia in the event of a response (available in Appendix 13 of the OPEP).

8.3. Global Resources

The ConocoPhillips Global Incident Management Assist Team (GIMAT) is a specialist incident management team. Members are located globally and can be readily mobilised to support a business unit IMT that has exceeded its capacity to manage effectively or is required to maintain sustained IMT operations over an extended duration incident. The GIMAT can fill most roles within the ConocoPhillips Australia IMT structure.

8.4. TRP Resource Guidance

This section supports the personnel and equipment recommendations made in the TRPs in Section 3. Individual items of oil spill response equipment, as well as the combination of commercially available materials could be used in any shoreline response scenario. These are deemed suitable for a shoreline response to a accidental hydrocarbon release during the ConocoPhillips Australia Otway Exploration Drilling Program.

8.4.1. Response Personnel

Personnel provided for operational work on the shoreline or in vessels must be fit to work in the shoreline environment. Minimum trained operational personnel requirements for individual operational activities are listed within each TRP document. Incident Command System (ICS) span of control ratios have been applied to establish the numbers of personnel required and the contents of the response kits to support their activities. Span of control will not exceed seven personnel under the command of a single supervisor.

8.4.1.1. Trained Responders

Trained responders can be sourced from the following locations:

- ConocoPhillips Staff
- AMOSC Technical Staff
- AMOSC Core Group
- AMSA National Response Team

Additional responders can be sourced from labour hire agencies as required under supervision of trained personnel.

8.4.2. Site Set-up

Provision for activities supporting the operational taskings associated with each TRP will require non-oil spill response specific equipment and supplies as per the TRP listings for the Site Set-up Kit and Decontamination

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Kit. Both the Site Set Up Kit and the Decontamination Kit listed in Tables 8 and 9 respectively are designed to support up to 30 personnel at the beginning of the response with further equipment required for extended response durations.

Table 8-2: Site set-up kit

Contents	Quantity (Minimum)	
Tarps, 3m x 3m	2	Unit
Gazebo, 3m x 3m	2	Unit
Sorbent Roll, 30” x 150m	1	Unit
Sorbent Pads	1	Pack 100
1.8m steel core garden stakes	20	Unit
Barrier Tape, 75mm x 100m	8	Rolls
Flagged Safety Bunting, 30m	1	Roll
Rope, 12mm x 20m	2	Lengths
T Top Safety Bollards w/ 6kg weights	6	Unit
Folding chair	2	Unit
Clip Board and pens	2	Sets
20 ltr Water Drum	1	Unit
Trestle Table	2	Units
Portable Toilet	2	Unit
Fresh Water, 1000 litre IBC	2	Units
Waste Water Storage, 1000 litre IBC	2	Units
120 litre Wheely Bin	4	Units

8.5. Site Decontamination

Decontamination of oiled personnel and equipment is essential in the prevention of secondary contamination and must be taken into consideration prior to any contact with oil. Decontamination procedures and equipment listed in Table 8-3 will be required at any location at which oil spill response is carried out.

Table 8-3: Decontamination kit

Contents	Quantity (Minimum)	
Tarps, 3m x 3m	2	Unit
Gazebo, 3m x 3m	2	Unit
Portable Bund	2	Unit
Sorbent Roll, 30” x 150m	1	Unit
Sorbent Pads	1	Pack 100
1.8m steel core garden stakes	20	Unit
Barrier Tape	2	Rolls
Flagged Safety Bunting, 30m	1	Roll
Rope, 12mm x 20m	2	Lengths
T Top Safety Bollards w/ 6kg weights	6	Unit
Folding chair	2	Unit
Scrubbing Brush	4	Unit
Plastic Tub, 50 ltr	2	Unit
Plastic Tub, 35 ltr	2	Unit
Cable ties	1	Pack 100
Duct Tape	2	Roll
Tyvek Coveralls	8	Pairs
Oil Resistant Gloves	8	Pairs
Nitrile Gloves	1	Box 100
Safety Goggles	4	Pairs
P2 Respirator Mask	1	Box 10
Plastic bucket, 10 ltr	2	Unit
‘Exit’ Sign	1	Unit
‘Entry’ Sign	1	Unit
Slide/Stake Hammer	1	Unit

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Contents	Quantity (Minimum)	
Stake Puller	1	Unit
Detergent, 5 ltr	2	Unit
Heavy Duty Hand Cleaner, 5 ltr	2	Unit

8.6. Shoreline Pre-cleaning

Most pre-clean activities will not require extensive equipment and resources and generally require that natural materials in potential impact zones are physically relocated to above the high tide line. The equipment and personnel identified within a TRP to undertake shoreline clean-up can be utilised for shoreline pre-clean to above high-tide mark.

8.7. Shoreline Clean-up

Shoreline clean-up activities are generally labour intensive. The equipment listed in Table 8-4 should be generally considered as a minimum. Shoreline assessment of specific locations in the event of an incident should be used to recommend the most suitable equipment for shoreline clean-up.

Table 8-4: Shoreline clean-up kit

Contents	Quantity (Minimum)	
Long handled metal rake	8	Units
Plastic Rake	4	Units
Concrete placers	4	Units
Square mouth shovel	8	Units
Heavy duty plastic bags, 300mm x 600mm	1,000	Units

8.8. Protection and Deflection

8.8.1. Near-shore Boom

Near-shore boom is used for protection and deflection activities. Various types of nearshore boom can be used and are held by various agencies and suppliers. Table 8-5 identifies the most common types available along with basic performance.

Table 8-5: Near-shore boom

Boom Type	Considerations	Operational Limitations
Self Inflating	• Generally in 25m lengths. • Good wave following characteristics. • Rapid, easy to deploy. • For deflection and containment in low current nearshore waters. • Susceptible to punctures. • Not suitable for abrasive environments (Sharp rocks, abrasive jetty structures).	> 1.2m waves > 0.25m/s current
Inflatable – general purpose boom	• Produced in 10m, 20m and 25m lengths. • Requires air inflation to deploy. • Have good wave following characteristics. • For deflection and containment in low current nearshore waters. • Susceptible to punctures. • Not suitable for abrasive environments (Sharp rocks, abrasive jetty structures).	> 2m waves > 0.25m/s current
Solid inflation – general purpose	• Generally in 25m lengths. • Have poor wave following characteristics. • Considered easy to deploy. • For deflection and containment in low current nearshore waters. • Highly durable, abrasive resistant, punctures do not result in loss of buoyancy.	> 1m waves > 0.25m/s current

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8.8.2. Near-shore Boom Ancilliaries Kit

The near-shore boom ancillary kit contents in Table 8-6 have been selected as a recommended list of equipment required to deploy 100m of Near Shore Boom.

Table 8-6: Near-shore boom ancilliaries kit

Contents	Quantity (Minimum)	
ASTM Tow Bridle	2	Units
15kg Anchor	4	Units
10m rope	8	Lengths
20m rope	4	Lengths
Float	4	Units

8.8.3. Shore Seal Boom

Shore seal boom is used for protection and deflection activities, Table 8-7 identifies the considerations and limitations of shore seal boom during a response.

Table 8-7: Shore seal boom

Boom Type	Considerations	Operational Limitations
Shore sealing	• Produced in 10m, 20m and 25m lengths. • Good wave following characteristics. • Complex to deploy, requires comprehensive ancillaries. • Designed to seal at the waterline on mud or sand flats. • For deflection and containment in low current nearshore waters. • Susceptible to punctures. • Not suitable for abrasive environments (Sharp rocks, abrasive jetty structures).	Will not seal on rough or rocky shorelines.

8.8.4. Shore Sealing Boom Anciliaries Kit

The shore seal boom ancillary kit contents outlined in Table 8-8 are based on minimum requirements to deploy and maintain 100m of shore seal boom.

Table 8-8: Shore seal boom ancilliaries kit

Contents	Quantity (Minimum)	
Solid Stake	3	Units
Slide Hammer	1	Unit
Stake Puller	1	Unit
15kg Anchor	4	Units
10m rope	8	Lengths
20m rope	4	Lengths
Float	4	Units
ASTM Anchor Bracket	2	Unit
ASTM Tow Bridle	2	Units
Water pump	1	Unit
Air Blower	1	Unit
1 ½" Water Suction Hose	1	Unit
1 ½" Water Suction Hose Extension	1	Unit
Suction Strainer (Foot valve)	1	Unit
Water Discharge (Lay flat) Hose w/ Monson Head	1	Unit
Water Discharge (Lay flat) Extension Hose	1	Unit
Bucket (5ltr Plastic)	1	Unit
Monson Valve Adaptor	1	Unit
Waders	2	Pairs
2 x Solid Flotation Life Vest	2	Units

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8.9. Spill Recovery

Any task within the TRPs that relates to Spill Recovery will require the following:

- Trained Responder
- Unskilled Labour
- Recovery System (i.e. Vacuum Truck)

The provision of specifically trained staff for the use vacuum trucks will require negotiation with the supplier.

8.9.1. Vacuum Truck

Vacuum trucks have been identified in the TRPs as an oil recovery method where access allows. Vacuum trucks can be used as a primary method to collect oil from booming sites or more traditionally to recover oil from temporary storage where an oil recovery skimmer is being used.

Vacuum trucks can service multiple sites, transporting waste directly to onwards disposal location, and are commonly available in most towns, often utilised as part of a council's waste contract.

8.9.2. Portable Vacuum Unit

Portable vacuum systems are designed to operate in remote areas and can recover oil over a wide range of viscosities and weathered conditions. Temporary storage or oil drums for direct removal of collected waste will be required in addition to the vacuum unit. Table 15 is a guide to the contents of a portable vacuum unit.

Table 8-9: Portable vacuum unit

Contents	Quantity (Minimum)	
Vac Unit/Power Pack	1	Unit
Suction Hose	1	Set
Suction Fittings	1	Set

8.10. Site and Response Support Personnel

8.10.1. Communication

Effective communication arrangements are critical to the success of any response operation and should consider the following:

- Satellite phone communications are specified in remote area TRPs to allow operational field teams to provide information to the IMT
- VHF radio communications will be required on all vessels supplied
- VHF handheld radio units will be required to support shore to vessel communications during deployments, and
- UHF radio units are recommended for communications between individual operational task groups in the field.

8.10.2. Support Vessels

Support vessels are required for some of the pre-identified TRP sites to assist in the deployment of boom and transport personnel and equipment. Small fishing or work vessels may be considered suitable, pending ConocoPhillips Australia marine vetting requirements and consideration of the below minimum requirements:

- Commercially registered with the relevant regulatory authority
- Capable of carrying 4 people
- Open, aluminium hull
- Safety equipment as per state regulations, and

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- Ability to safety tow boom if required.

8.11. Shoreline Flushing Kit

The use of high-volume, low-pressure water flow to remobilise stranded oil for skimming may be recommended at TRP sites. Oil is flushed from a high point into sorbent materials or boom where it can be contained and recovered. Table 8-10 outlines the contents of a shoreline flushing kit.

Table 8-10: Shoreline flushing kit

Contents	Quantity (Minimum)	
Water Pump	1	Unit
Suction Hose	1	Unit
Discharge Hose	1	Unit
Suction Strainer	1	Unit
Float	2	Units
5kg anchor	1	Unit
Rope, 12mm x 20m	2	Units
1.8m steel core garden stakes	20	Units
Barrier Tape	2	Rolls

8.12. Utility Terrain Vehicle (UTV)

UTVs have been included in the TRPs for the movement of personnel, equipment and waste. UTVs have been selected over other types of vehicles, such as ATVs (All-Terrain Vehicles) i.e. Quads, because of the ability to carry greater loads, personnel and the improved safety features including:

- Side by side seating
- Seatbelts
- ROP (Roll Over Protection), and
- Minimum 360 kg payload.

8.13. Temporary Waste Storage

Within the context of CoP's Otway Drilling operations and the response options available waste will mainly be solid waste from PPE sorbent and shoreline clean-up activities. There will likely be limited liquid waste generated by vacuuming larger concentrations of hydrocarbon collected by protection and deflection operations.

Recommended considerations for temporary storage includes Intermediate Bulk Containers, plastic lined skip bins or plastic lined pits as detailed below:

1) Standard Schutz IBCs
   a) Volume restricted by available laydown area and number of IBCs
   b) Preferred method of lifting requires a forklift
   c) Camlock fitting and valve for hose attachmen
   d) Transfer waste using hose and pump, or vacuum
2) Plastic Lined Skip Bins
   a) Volume restricted by available laydown area and capacity of bins
   b) Overfilling bins may make them unable to be lifted
   c) Easy removal from site using hook trucks from commercial providers
3) Plastic Lined Pits
   a) Volume restricted by available area and capacity
   b) Protection of recovered waste in inclement weather to be considered

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c) Transfer waste using mechanical means into a skip bin for disposal
d) Environmental assessment/approvals may be required due to the requirement to dig a hole for this option.

8.14. Personnel Protective Equipment (PPE)

Responders to an accidental hydrocarbon release may be exposed to various risks while working, with some examples being:

- Exposure to dangerous gasses or fumes
- Environmental – weather, sea state, animals
- Vessel Operations
- Slips, Trips and Falls
- Vehicle Operations
- Plant Operations
- Manual Handling, and
- Noise.

All operators involved in oil spill operations are required to maintain a basic standard of PPE when on task. The standard and group issue PPe requirements listed in Tables 8-11 and 8-12 are based on the API Recommended Practice 98, First Edition, August 2013, 'Personal Protective Equipment Selection for Oil Spill Responders'.

Table 8-11: Standard issue individual PPE kit

Contents	Quantity (Minimum)	
Hard hat	1	Unit
Safety glasses with side shields (clear)	1	Unit
Safety glasses with side shields (smoked)	1	Unit
Goggles	1	Unit
Steel capped boots with gaiters	1	Units
Disposable nitrile gloves	100 pack	Unit
Lacerations resistant riggers gloves	2	Units
Chemical resistant gloves	2	Units

Table 8-12: Group issue resupply PPE kit – 50 PAX for 5 day operations

Contents	Quantity (Minimum)	
Safety glasses with side shields (clear)	17	Unit
Safety glasses with side shields (smoked)	17	Unit
Goggles	10	Unit
Face shield	10	Unit
Steel capped boots with gaiters	5	Units
Chemical resistant boots (wellies)	10	Unit
Disposable nitrile gloves	10x 100p	Units
Lacerations resistant rigger gloves	250	Units
Chemical resistant gloves	250	Unit
Chemical protective garments - TYVEK (impervious chem suit)	250	Unit
Ear protection - ear plugs	50x 25p	Unit
Ear protection - muffs	10	Unit
Respiratory - disposable particulate respirator	50x 20p	Units
PFD (Type 1)	20	Unit

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9. Resource Estimation

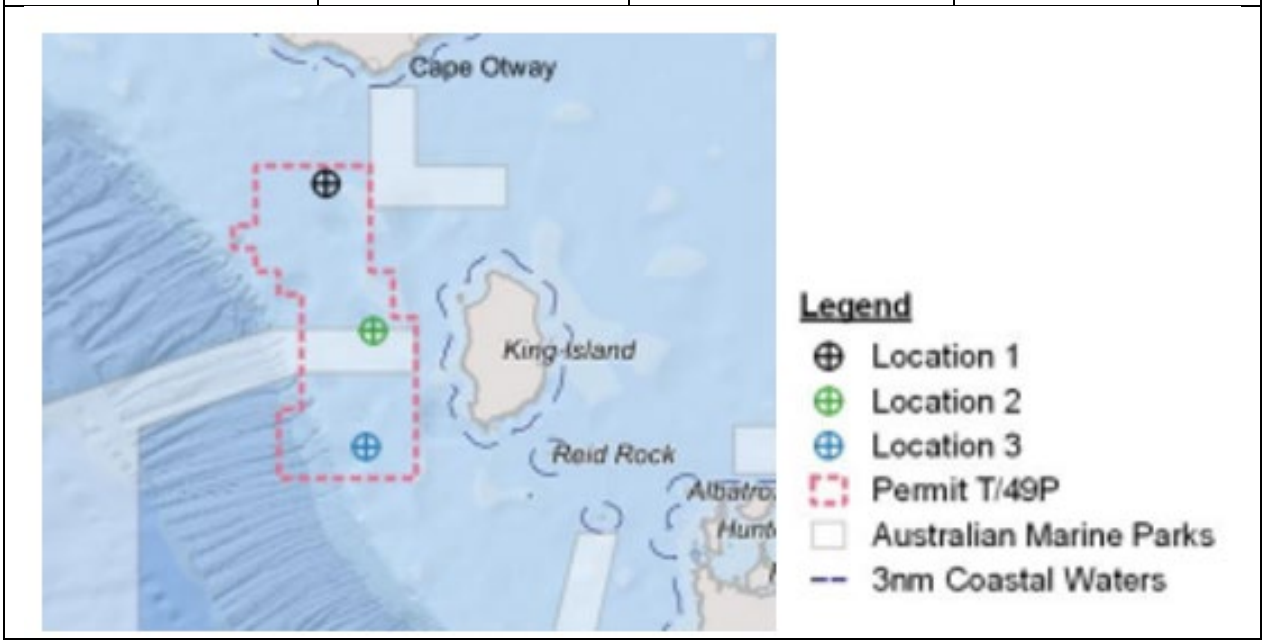
The following information supports the personnel and equipment recommendations derived from an analysis of the modelling for each scenario/location. When activating TRPs, clear response resource totals are highlighted for each location. However, when activating a generic STR, resource summaries are not clear due to the varying nature of shoreline loading and shoreline length.

The following resource estimations have been calculated based on the modelling done for each permit area, hydrocarbon type and location. By analysing the shoreline types for each affected LGA, calculations have been made based on industry guidelines for best practice for each response strategy to come up with an estimation of resource requirements. These estimations may help the IMT properly resource an effective spill response operation. A list of the assumptions and criteria for each estimation is in located in Appendix 2 Shoreline Personnel and Equipment Assumptions.

For each of the estimations below, the permit areas and location descriptions identified in Tables 9-1 and 9-2 are used (and are shown in the associated images).

Table 9-1: T/49P hydrocarbon release locations

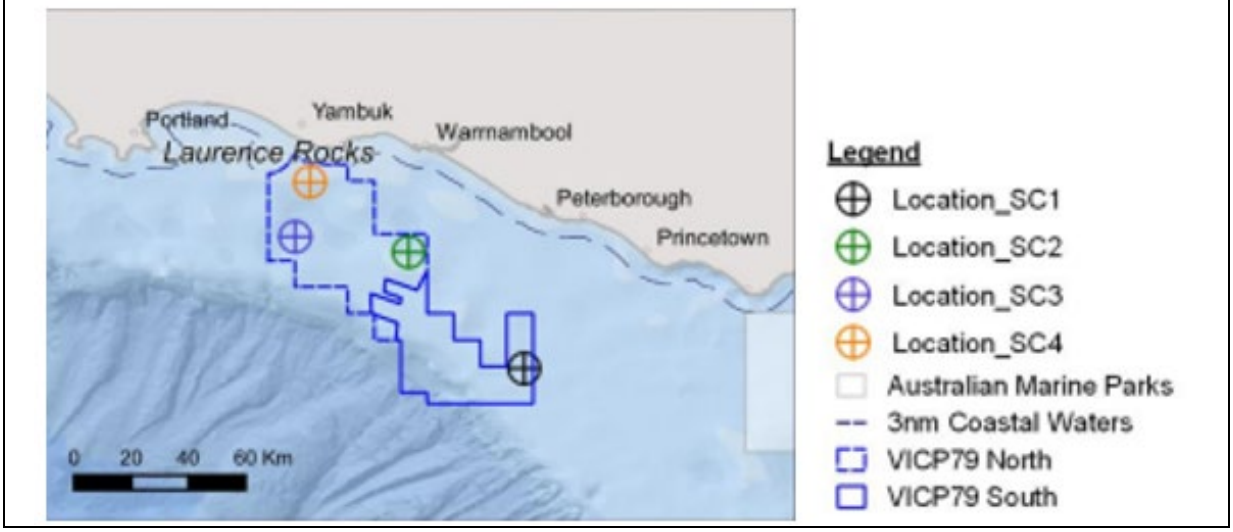
Release Location	Latitude	Longitude	Water Depth (m)
Location 1	39° 15’ 46.6” S	143° 20’ 26.4” E	93
Location 2	39° 47’ 49.7” S	143° 30’ 46.3” E	100
Location 3	40° 13’ 5.3” S	143° 29’ 10.9” E	114



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Table 9-2: VIC/P79 hydrocarbon release locations

Release Location	Name	Latitude	Longitude	Water Depth (m)
Location 1	Essington	39° 5’ 17.4” S	142° 48’ 23.1” E	93
Location 2	Regia	38° 43’ 20.6” S	142° 26’ 35.3” E	74
Location 3	Merope	38° 5’ 8.9” S	142° 5’ 8.9” E	66
Location 4	Julpha	38° 30’ 6.4” S	142° 7’ 55.5” E	45



Each permit area (T/49P and VIC/P79) and location combination have 2 scenarios which have been modelled for both summer and winter conditions, being:

- Scenario 1: Vessel Collision - 350m3 of MDO over 6 hours, surface release, and
- Scenario 2: Thylacine Condensate LOWC 139,000 m3 released over 90 days.

Figure 9-1 highlights how to navigate to the appropriate section in Appendix 2. By using this flowchart, resource summary estimations can be used to calculate response strategies and logistical requirements based on the type of hydrocarbon, permit area, and location.

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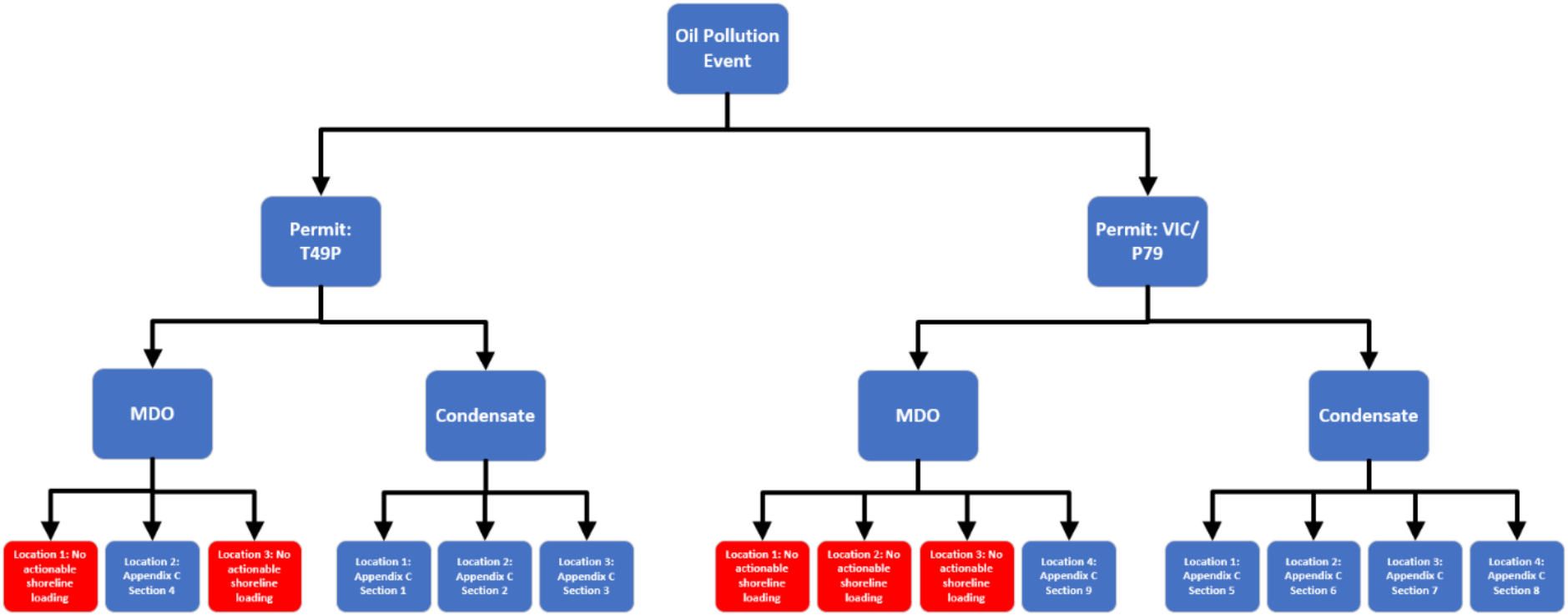


Figure 9-1: Resource summary location flowchart

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Appendix 1: Shoreline Treatment Recommendation Guides

This section provides Shoreline Treatment Recommendations (STRs) for generic shoreline types. It offers operational guidance on preferred techniques and outlines the constraints associated with their implementation. This section is relevant for shoreline that has or is soon to be impacted by oil, and where the site is not covered by a Primary or Secondary Shoreline Tactical Response Plan.

The primary objective of shoreline clean-up is to restore normal usage of the area by removing oil where possible and enhancing natural recovery of shoreline resources. Shoreline clean-up is usually carried out in three stages:

- **Stage 1:** Collection of floating oil and heavily contaminated beach material.
- **Stage 2:** Removal of stranded oil and moderately oiled beach materials.
- **Stage 3:** Final clean-up of lightly contaminated shorelines and removal of oily stains.

Shoreline clean-up needs to be carried out in accordance with a clear strategy that takes account of the characteristics of the oil, the level of contamination, the difficulty of access, the safety of clean-up crews and the relative environmental, economic and amenity sensitivities of different locations.

Figure A1-1 outlines the process to follow when using the Shoreline Treatment Recommendation Guide.

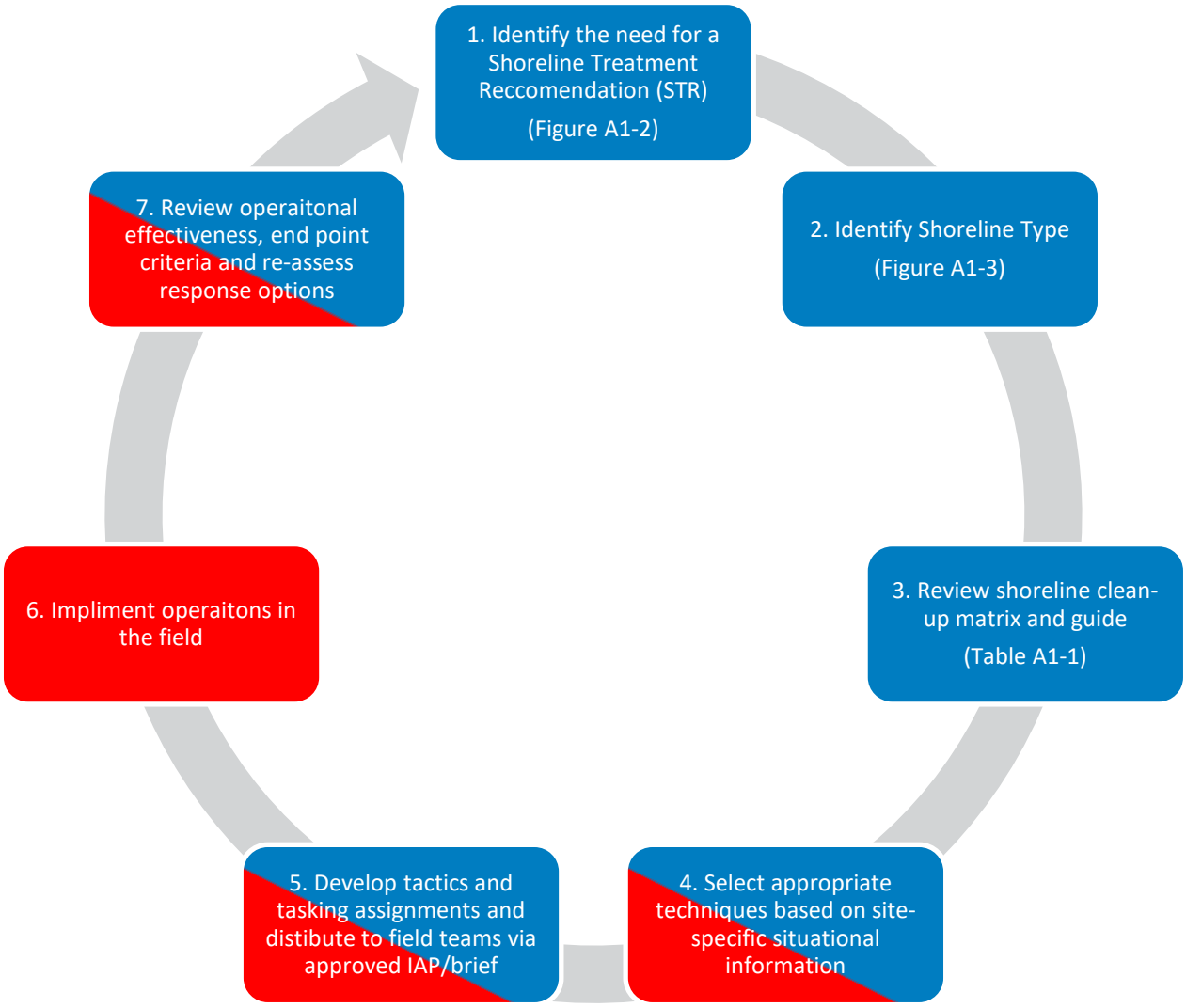


Figure A1-1: Shoreline treatment process

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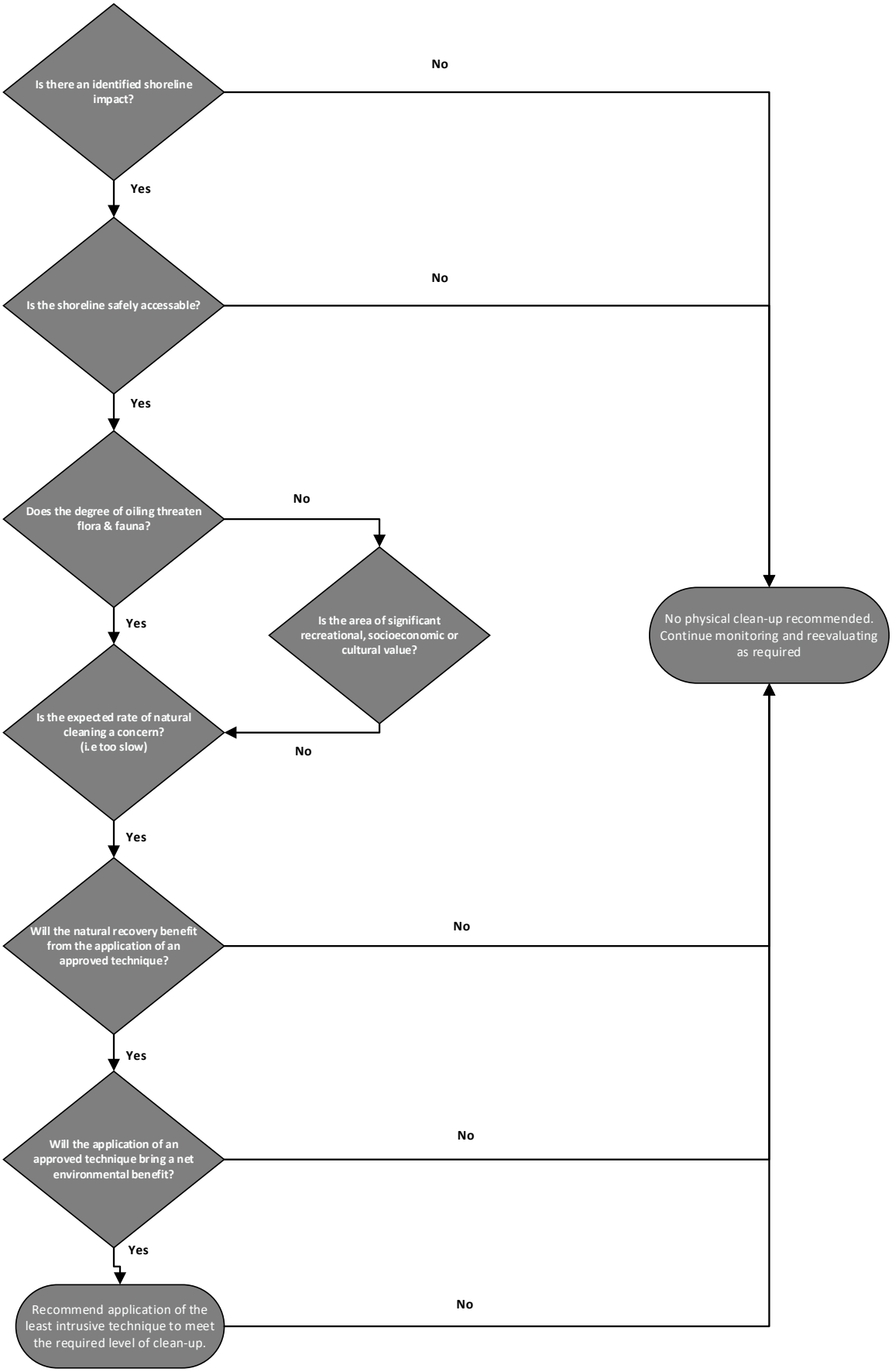


Figure A1-2: Shoreline treatment plan recommendation flowchart

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Step 2: Choose shoreline type

Eight (8) shoreline types have been identified along the coastlines of the LGAs, as outline in Figure A1-3.



1. Manmade structures
(Jetties, piers, sea walls etc.)



Rocky shore (sheltered)



Rocky platform/ Cliff face (exposed)



Sandy beach (mixed sand/shell)

S



Tidal flats (mud/sand) and Vegetative salt/brackish marsh



Shallow seagrass



Reef (Rocky/Coral)



Mangroves

Figure A1-3: Shoreline types

Step 3: . Review shoreline clean-up technique matrix (Table A1-1) and guide

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The following matrix outlines the shoreline types present and the shoreline clean-up techniques available for shoreline response.

A three-tiered criteria has been used to identify preferred and possible techniques and those to avoid to minimise secondary damage to the shoreline.

Table A1-1: Shoreline clean-up technique matrix

	Manmade structures (Jetties, piers, sea walls etc.)	Rocky shore (sheltered)	Rocky platform/ Cliff face (exposed)	Sandy beach (mixed sand/shell)	Tidal flats (mud/sand) and Vegetative salt/brackish marsh	Shallow seagrass	Reef (rocky/coral)	Mangroves
Natural Recovery								
Manual Oil Removal								
Mechanical Oil Removal								
Barrier (Onshore/Nearshore boom)								
Sorbents								
Vacuum								
Sediment Tiling								
Debris Removal								
Vegetation Removal								
Low-Pressure, Ambient-Water Flushing								
High-Pressure, Ambient-Water Flushing								
Hot-Water Flushing								
Chemical Dispersants								

Preferred **Possible** **Avoid**

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Recommended shoreline treatments are described below.

Table A1-1a: Shoreline treatment recommendation – Manmade structures

Oiled Areas for Treatment: **Description:** • Solid, man-made structures such as seawalls, groynes, piers, jetties, port facilities and residential marinas. • Constructed of concrete, wood, or metal. • Built to protect the shore from erosion by waves, boat wakes, and currents. **Predicted Oil Behaviour** • Both MDO and Condensate are Class I/II hydrocarbons • Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly. • Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal. For detailed oil behaviour see OPEP page 17.	

Clean up Recommendations:

Tactical: Where appropriate, the following response strategies are recommended.		
Natural Recovery		Allow tidal action to flush stranded hydrocarbon off the structure. The spilt hydrocarbon will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean up techniques would cause more harm than benefit, or where access is restricted.
Sorbents		Sorbent material (boom, pads, snares) may be placed on the floating Hydrocarbon or water surface, allowing it to absorb or can be used to wipe or dab stranded Hydrocarbon. Recovery of all sorbent material is mandatory. Sorbent materials must be placed and removed carefully to minimise disturbance to the surrounding area. Likewise, they must be carefully monitored to prevent entanglement.
Vacuum		Vacuuming can be used to remove pooled and/or surface oil from impacted structures. Vacuum equipment ranges from small portable units to large vacuum trucks.
High-Pressure, Ambient-Water Flushing		High -pressure, ambient-temperature flushing can be used to flush trapped oil out to open water for collection using booms and sorbents. Considerations should be given to tidal currents (flush on a falling tide) and wind (an onshore wind will push any released hydrocarbon back onto the structure).
People and Resources: Personnel and resource requirements should be assessed on a case-by-case basis.		

Staging and/or Logistics Constraints/Waste Issues:

- Access to these sites should be easily available due to being manmade.
- Mobile Phone coverage may be limited in remote areas, a contingency with a Satellite Phone should be scoped prior to deployment to site.
- Sorbents will create larger volumes of waste and a higher contamination risk; this should be considered within the Waste Plan for any response.

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Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

Table A1-1b: Shoreline treatment recommendation – Rocky shore (sheltered)

Oiled Areas for Treatment:

Description:

- Rocky substrate that varies widely in permeability.
- Some sediment accumulation may occur on the bedrock surface in particularly sheltered areas.
- Species density and diversity vary greatly, tidal zonation may be present.

Predicted Oil Behaviour

- Both MDO and Condensate are Class I/II hydrocarbons
- Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly.
- Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal.

For detailed oil behaviour see OPEP page 17.



Clean up Recommendations:

Tactical: Where appropriate, the following response strategies are recommended.

Natural Recovery		Allow tidal action to flush stranded hydrocarbon off the rocky shore. The spilt hydrocarbon will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean up techniques would cause more harm than benefit, or where access is restricted.

People and Resources:

Personnel and resource requirements should be assessed on a case-by-case basis.

Staging and/or Logistics Constraints/Waste Issues:

- Access will be dependent on location, with natural recovery being the preferred response strategy the use of vessel or aviation observations is recommended.
- Mobile Phone coverage may be limited in remote areas, a contingency with a Satellite Phone should be scoped prior to deployment to site.

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

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Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

Table A1-1c: Shoreline treatment recommendation – Rocky platform/cliff face

Oiled Areas for Treatment: **Description:** • The intertidal zone is steep and narrow. • Sediment accumulation is uncommon. • Access to these areas is highly restricted and dangerous. • Often strong vertical zonation of biological communities, which vary in density and diversity. **Predicted Oil Behaviour** • Both MDO and Condensate are Class I/II hydrocarbons • Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly. • Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal. For detailed oil behaviour see OPEP page 17.	

Clean up Recommendations:

Tactical: The following response strategy is recommended.		
Natural Recovery		Allow tidal action to flush stranded hydrocarbon off the platform or cliff face. The spilt hydrocarbon will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean up techniques would cause more harm than benefit, or where access is restricted.
People and Resources: Personnel requirements should be assessed on a case-by-case basis.		

Staging and/or Logistics Constraints/Waste Issues:

Access for observation of these sites via aircraft is recommended due to the danger of vessel operations and lack of physical access.

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Access to these areas is difficult and can be dangerous – no physical clean-up recommended.

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Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Access to these areas is difficult and can be dangerous – no physical clean-up recommended.

Table A1-1d: Shoreline treatment recommendation – Sandy beach (mixed sand/shell)

Oiled Areas for Treatment: **Description:** • These beaches are flat to moderately sloping and relatively hard packed. Some beaches may have softer sediments – reducing access by people and vehicles. • There can be heavy accumulations of wrack (seagrass/debris) present. • Beaches support a diversity of animal and plant species. **Predicted Oil Behaviour** • Both MDO and Condensate are Class I/II hydrocarbons • Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly. • Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal. For detailed oil behaviour see the Otway Exploration Drilling OPEP page 17.	

Clean up Recommendations:

Tactical: Where appropriate, the following response strategies are recommended.		
Natural Recovery		Allow tidal action to flush stranded hydrocarbon off the beach. The spilt hydrocarbon will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean up techniques would cause more harm than benefit, or where access is restricted.
Manual Oil Removal (incl. debris removal)		The removal of bulk hydrocarbon and contaminated sediment by manual methods including shovels, heavy duty plastic bags and buckets. Often used where substrate is insufficient for mechanical operations and/or where the beach is too far for pumps or suction hoses to reach the water's edge. Only suitable where there is safe access/egress for personnel and support facilities to manually recover oil.
Barrier (Onshore/ Nearshore boom)		Onshore/Nearshore booms may be deployed to contain and recover oil released from the contaminated area either naturally or concurrently with flooding/flushing operations. Booms must be placed and removed carefully to minimise disturbance to the surrounding area. Likewise, they must be carefully monitored to prevent stranding, entanglement or failure.
Low-Pressure, Ambient-Water Flushing		Low -pressure, ambient-temperature flushing can be used to flush trapped oil out to open water for collection using booms and sorbents. Considerations should be given to tidal currents (flush on a falling tide) and wind (an onshore wind will push any released hydrocarbon back onto the beach).
People and Resources: Personnel requirements should be assessed on a case-by-case basis, for guidance refer to Appendix 2.		

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Staging and/or Logistics Constraints/Waste Issues:

- Access to some beaches will require permission from the relevant LGA or Land Manager
- Mobile Phone coverage may be limited in remote areas, a contingency with a Satellite Phone should be scoped prior to deployment to site.
- Manual and debris removal will generate waste and have decontamination requirements.
- Manual removal will require personal and support facilities.

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

Table A1-1e: Shoreline treatment recommendation – Tidal flats (mud/sand) and vegetative salt/brackish marsh

Oiled Areas for Treatment:

Description:

- Wetlands consisting of emergent herbaceous vegetation that are regularly, frequently, or continually flooded.
- Highly productive ecosystems that support a diversity of animal and plant species.
- Vary widely in type of vegetation, substrate (mud/sand), salt tolerance and seasonality.

Predicted Oil Behaviour

- Both MDO and Condensate are Class I/II hydrocarbons
- Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly.
- Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal.

For detailed oil behaviour see the Otway Exploration Drilling OPEP page 17.



Clean up Recommendations:

Tactical: Where appropriate, the following response strategies are recommended.		
Natural Recovery		Allow tidal action to flush stranded hydrocarbon off the tidal flats or marsh. The spilt hydrocarbon will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean up techniques would cause more harm than benefit, or where access is restricted.
Barrier (Onshore/ Nearshore Boom)		Onshore/Nearshore booms may be deployed to contain and recover oil released from the contaminated area either naturally or concurrently with flooding/flushing operations. Booms must be placed and removed carefully to minimise disturbance to the

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		surrounding area. Likewise, they must be carefully monitored to prevent stranding, entanglement or failure.
Low-Pressure, Ambient-Water Flushing		Low -pressure, ambient-temperature flushing can be used to flush trapped oil out to open water for collection using booms and sorbents. Considerations should be given to tidal currents (flush on a falling tide) and wind (an onshore wind will push any released hydrocarbon back onto the beach).

People and Resources:

Personnel requirements should be assessed on a case-by-case basis, for guidance refer to Appendix 2.

Staging and/or Logistics Constraints/Waste Issues:

- Mobile Phone coverage may be limited in remote areas, a contingency with a Satellite Phone should be scoped prior to deployment to site.
- Contaminated boom will require cleaning and removal with decontamination options to be considered

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

Table A1-1f: Shoreline treatment recommendation – Shallow seagrass

Oiled Areas for Treatment:

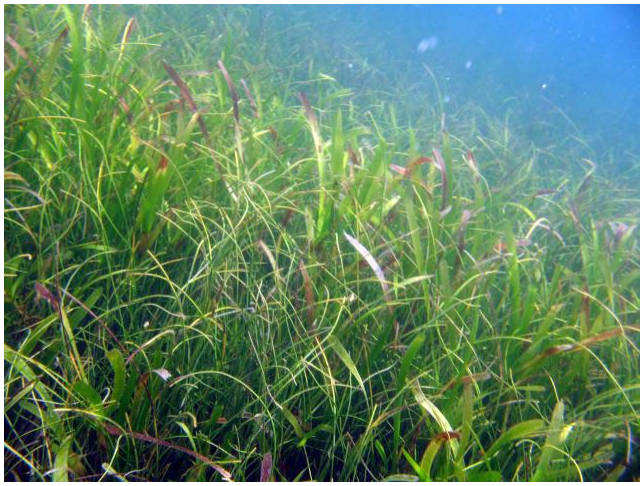
Description:

- Flowering plants that grow in shallow or sheltered coastal waters, anchored in sand or mud bottoms.
- Provide habitat for a variety of marine, estuarine and beach-dwelling animals.

Predicted Oil Behaviour

- Both MDO and Condensate are Class I/II hydrocarbons
- Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly.
- Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal.

For detailed oil behaviour see the Otway Exploration Drilling OPEP page 17.



Clean up Recommendations:

Tactical: Where appropriate, the following response strategies are recommended.		
Natural Recovery		Allow tidal action to flush stranded hydrocarbon out of contaminated seagrass beds. The hydrocarbon will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative cleanup techniques would cause more harm than benefit to the seagrass beds.

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Barrier (Onshore/ Nearshore boom)		Onshore/Nearshore booms may be deployed to contain and recover oil released from the contaminated area naturally or concurrently with flooding/flushing operations.
People and Resources: Personnel requirements should be assessed on a case-by-case basis, for guidance refer to Appendix 2.		

Staging and/or Logistics Constraints/Waste Issues:

- Mobile Phone coverage may be limited in remote areas, a contingency with a Satellite Phone should be scoped prior to deployment to site.
- Boom used may require decontamination.

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

Table A1-1g: Shoreline treatment recommendation – Reef (rocky/coral)

Oiled Areas for Treatment:

Description:

- Subtidal rocky/coral reefs provide habitat for a variety of plant and animal species.
- Coral reefs are important economic and natural resources. They protect shorelines and support fisheries, recreation, and tourism.

Predicted Oil Behaviour

- Both MDO and Condensate are Class I/II hydrocarbons
- Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly.
- Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal.
- For detailed oil behaviour see the Otway Exploration Drilling OPEP page 17.



Clean-up Recommendations:

Tactical: The following response strategy is recommended.		
Natural Recovery		Allow natural tidal action to flush stranded/deposited oil. Oil will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean up techniques would cause more harm than benefit, or where access is restricted.
People and Resources:		

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Personnel requirements should be assessed on a case-by-case basis, for guidance refer to Appendix 2.

Staging and/or Logistics Constraints/Waste Issues:

• SMV will be the primary response option for this area with the use of vessel or aviation observations

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

Table A1-1h: Shoreline treatment recommendation – Mangroves

Oiled Areas for Treatment: **Description:** • Roots and trunks are mostly intertidal**;** the lower leaves are flooded at high tide. • Substrate type can vary between mud, sand and leaf debris. • They are highly productive, serve as nursery habitat, and support a diversity of animal and plant species. **Predicted Oil Behaviour** • Both MDO and Condensate are Class I/II hydrocarbons • Class I/II hydrocarbons spread rapidly, disperse, and evaporate quickly. • Gas Condensate is predicted once weathered to leave a waxy substance that will require manual removal. For detailed oil behaviour see the Otway Exploration Drilling OPEP page 17.	

Clean-up Recommendations:

Tactical: Where appropriate, the following response strategies are recommended.		
Natural Recovery		Allow tidal action to flush stranded oil out of contaminated mangrove areas. Oil will continue to weather, degrading and gradually reducing in volume and toxicity. Natural recovery is appropriate in situations where alternative clean-up techniques would cause more harm than benefit to the mangroves and associated habitat.
Barrier (Onshore/ Nearshore boom)		Onshore/Nearshore booms may be deployed to contain and recover oil released from the contaminated area either naturally or concurrently with flooding/flushing operations.
Sorbents		Sorbent material (boom, pads, snares) may be placed on the floating hydrocarbon or water surface, allowing it to absorb or used to wipe or dab stranded hydrocarbon.

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		Recovery of all sorbent material is mandatory. Sorbent materials must be placed and removed carefully to minimise disturbance to the surrounding area. Likewise, they must be carefully monitored to prevent stranding, entanglement and failure
Low-Pressure, Ambient-Water Flushing		Low-pressure flushing with ambient seawater can be used to wash hydrocarbon from the sediment surface and mangrove vegetation in to areas where it can be collected. Flushing operations are most feasible from the outer fringe of the mangrove habitat and considerations should be given to tidal currents (flush on a falling tide) and wind (an onshore wind will push any released hydrocarbon back onto the shoreline).
People and Resources: Personnel requirements should be assessed on a case-by-case basis, for guidance refer to Appendix 2.		

Staging and/or Logistics Constraints/Waste Issues:

- Access to some beaches will require permission from the relevant LGA or Land Manager
- Mobile Phone coverage may be limited in remote areas, a contingency with a Satellite Phone should be scoped prior to deployment to site.
- Manual and debris removal will generate waste and have decontamination requirements.
- Manual removal will require personal and support facilities.

Ecological Concerns:

A NEBA or SIMA should be undertaken to ensure the most appropriate response options and any sensitivities are identified.

Cultural/Historical Concerns:

Consultation with Traditional Owner Groups and relevant government departments should be sought prior to mounting a response to cover any cultural or historical concerns.

Safety Concerns:

Risk assessments should be conducted for each individual site with site safety plans and a Job Safety Analysis undertaken prior to commencement of response activity.

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Shoreline Treatment Recommendation Guide – Additional Information

The following table provides additional information to assist with planning decisions around the use of individual shoreline clean-up techniques. Key elements including objective, description, applicable habitat types, when to use, biological constraints, environmental effects and waste generation have been provided for each of the twelve shoreline clean-up techniques.

Table A1-2: Additional information to support shoreline treatment recommendation guide. Note. This table is based on the information provided in the NOAA Shoreline Assessment Manual.

	Objective	Description	Applicable Habitat Types	When to Use	Biological Constraints	Environmental Effects	Waste Generation
Natural Recovery	No stranded oil is removed in order to minimise impact to the environment, or because no there is no effective/safe method for cleanup.	Oil is left in place to degrade naturally. Monitoring of the contaminated area may be required.	Manmade Structures Rocky Shore Sandy Beach Tidal Flats Shallow Seagrass Reef Mangroves	When natural removal rates are fast (high evaporation, high energy coastline), when the degree of oiling is light or when cleanup actions will do more harm than natural recovery.	Natural recovery may be inappropriate for area used by high numbers of mobile animals (birds, marine mammals) or endangered species.	Same as from the oil alone.	None.
Manual Oil Removal	Removal of oil with hand tools and manual labour.	Removal of surface oil using hands, rakes, shovels, buckets, scrapers, sorbents, etc., and placing in containers. Includes underwater recovery of submerged oil by divers.	Preferred: Rocky Shore Sandy Beach Possible: Tidal Flats Mangroves	Light to moderate oiling conditions for stranded oil. Submerged heavy oils that have formed semi-solid/solid masses on the bottom.	Foot traffic over sensitive areas (wetlands, tidal pools, etc.) should be restricted or prevented. Shoreline access may need to be restricted/closed at times (i.e. during bird nesting/ turtle hatching). Permission to work in culturally significant sites.	Minimal, if surface disturbance by responders and waste generation is controlled.	Collection of oil mixed with sand. Oily wastewater following decontaminati on. Oiled personal protective gear. All must be properly treated and/or disposed.

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	Objective	Description	Applicable Habitat Types	When to Use	Biological Constraints	Environmental Effects	Waste Generation
Mechanical Oil Removal	Removal of oil from shorelines using mechanical equipment.	Oil is collected using equipment such as graders, bulldozers, dredges, beach cleaners, etc. Requires systems for temporary storage, transport and treatment/disposal of collected material.	Possible: Sandy Beach	When large amounts of oiled materials must be removed. Care should be taken to remove sediments only to the depth of oil penetration. Excessive sediment removal will cause erosion and significantly increase waste volume.	Use of heavy equipment in sensitive habitats (i.e. wetlands, soft substrates) should be restricted. Permission requested for use in culturally significant areas. Site area must be controlled to prevent physical disturbance to adjacent, unoiled areas. The noise generated by the mechanical equipment may present a constraint as well.	May be detrimental if excessive sediments are removed without replacement. Organisms in the sediment will be affected, although the need to remove oil may make this response method the best overall alternative. Resuspension of exposed oil and fine-grained, oil sediments can affect adjacent bodies of water.	Can generate large quantities of contaminated sediment debris that requires treatment and/or disposal.
Sorbents	Removal of surface oil by absorption by oleophilic material placed at the waterline.	Sorbent material (boom, pads, snares) is placed on the floating oil or water surface, allowing it to absorb oil or is used to wipe or dab stranded oil. Recovery of all sorbent material is mandatory - they need to be firmly anchored in areas exposed to wave action/currents, to prevent stranding on the shoreline.	Preferred: Rocky shore Possible: Tidal Flats Shallow Seagrass Mangroves	When oil is free-floating in small rocky pools, or stranded on shore. As a secondary treatment method after gross oil removal, and in sensitive areas where access is restricted (i.e mangroves). Note. Heavy oil will only coat the surface – therefore requires a large surface area to be effective.	Access for deploying and retrieving sorbents should not adversely affect wildlife. Application is soft or sensitive habitats will require deployment by boat or use of walking boards. Sorbent material left in place too long can break apart and present an ingestion hazard to wildlife.	Physical disturbance of habitat during deployment and retrieval.	All sorbent material must be collected and disposed appropriately. Caution should be taken to prevent overuse and the generation of large amounts of lightly oiled sorbents.

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	Objective	Description	Applicable Habitat Types	When to Use	Biological Constraints	Environmental Effects	Waste Generation
Vacuum	Removal of oil pooled on a shoreline substrate or subtidal sediments.	Vacuum unit is attached via a flexible hose to a suction head that recovers free oil. May be mounted on vessels for water-based operations, on trucks driven to recovery areas, or hand-carried to remote sites.	Preferred: Rocky shore Possible: Manmade Structures Sandy Beach Tidal Flats Shallow Seagrass Mangroves	When oil is stranded on the substrate, pooled against a shoreline, concentrated in rocky trenches or trapped in vegetation. May be used in combination with low-pressure flushing to lift the oil off the substrate and vegetation.	Restrictions should be established for areas where foot traffic and equipment operation may be damaging, such as soft substrates.	Minimal, if foot and vehicle traffic are controlled and minimal substrate/vegetation is damaged or removed. Site restrictions and procedures should be developed and implemented.	Collected oil and or oil/water mix will need to be stored temporarily prior to treatment/disposal. Large amounts of water are often recovered, requiring separation and treatment.
Debris Removal	Removal of debris in path of spill prior to oiling and to remove contaminated debris from the shoreline and water surface.	Manual or mechanical removal of debris (seaweed, driftwood, wreckage, trash) from the shore or water surface.	Possible: Sandy Beach Tidal Flats Mangroves	When debris is heavily contaminated and provides a potential source of secondary oil release and/or contamination for other resources that use the area such as birds and small mammals. Removal of non-oiled debris (beach wrack) may be considered to reduce potential oiled waste; or likely clogging of recovery skimmers; or if it is likely to cause safety problems for responders.	Foot traffic over sensitive areas (wetlands, spawning grands) must be restricted/controlled. Debris may be a habitat and an important source of prey (i.e. shorebirds feeding in wrack on beaches).	Physical disruption of substrate.	Potential to generate large volumes of contaminated debris. Waste disposal options should be less restrictive for debris collected pre-spill.

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	Objective	Description	Applicable Habitat Types	When to Use	Biological Constraints	Environmental Effects	Waste Generation
Vegetation Removal	To remove portions of oiled vegetation or oil trapped in vegetation to prevent oiling of wildlife or secondary oil releases.	Oiled vegetation is cut (weed trimmers, blades), picked or raked up and bagged for disposal.	Possible: Tidal Flats Mangroves	When the risk of oiled vegetation contaminating wildlife is greater than the value of the vegetation that is to be cut, and there is no less-destructive method that removes or reduces the risk to acceptable levels. Also, to remove thick oil residues under the oiled vegetation.	Cutting only the oiled portions of the plants and leaving roots and stems (as much as possible) will reduce impact to plants. Operations must be strictly monitored to minimise the degree of root destruction and mixing oil deeper into the sediments.	Vegetation removal/unnecessary trampling will destroy habitat for many animals. Cut areas will have reduced plant growth and, in some instances, plants may be killed. Along exposed sections of shoreline, the vegetation may not recover, resulting in erosion and habitat loss.	Cut portions of oiled plants must be collected and disposed of properly.
Sediment Tiling	To break up oily sediments and surface oil deposits, increasing their surface area, and bringing deeper subsurface oil layers to the surface, enhancing the rate of degradation by aeration. Also, to increase the rate sediment re-working by wave action.	Oil sediments are mixed (i.e. rototilled) using mechanical equipment or manual tools. Along beaches, oiled sediments may be pushed to the lower intertidal zone to enhance natural cleanup by wave activity (surf washing). On gravel beaches, the process may be aided with high-volume flushing.	Possible: Sandy Beach Sedimentary substrate that can support mechanical equipment or foot traffic and hand tiling.	On sand to gravel beaches with subsurface oil where sediment removal is not feasible (due to erosion, transportation or disposal problems). On sand beaches where the sediment is stained or lightly oiled. May be appropriate for sites where the oil is stranded above the normal high waterline, so that the sediments can be reworked by wave action.	Avoid use on shores near sensitive wildlife habitats, such as fish-spawning areas or bird-nesting and adjacent to subtidal habitats such as shellfish beds, seagrass, or coral reefs.	Mixing of oil into sediments could further expose organisms that live below the original layer of oil. Repeated reworking could delay re-establishing of these organisms. Refloated oil and oily suspended sediments from treated sites could contaminate adjacent waterbodies and shorelines.	None.
Flooding	To lift and wash oil stranded on land to the water's edge for collection.	A perforated hose is placed above the oiled shore. Sea water is pumped through the hose at low pressure and flows downwards	Preferred: Sandy Beach Possible:	In heavily oiled areas when the oil is still fluid and adheres loosely to the substrate, and where oil has penetrated into gravel sediments. Can be	Care should be taken to recover oil where nearshore habitats contain rich biological communities. Not	Habitat may by physically disturbed by foot traffic during operations and smothered by sediments washing. If containment methods are not	Depends on the effectiveness of the collection method.

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	Objective	Description	Applicable Habitat Types	When to Use	Biological Constraints	Environmental Effects	Waste Generation
		to the water where any released oil is collected by booms and recovered by skimmers or vacuum. On porous sediments, water flows through the substrate, pushing loose oil ahead of it. On saturated, fine-grained sediments, the technique will lift and flush the oil.	Manmade Structures Rocky shore Tidal Flats Shallow Seagrass	used with other washing techniques (i.e. low or high-pressure flushing).	appropriate for soft, muddy substrates.	sufficient, oil and oiled sediments may be flushed into adjacent areas. Flooding may cause sediment loss and erosion of the shoreline and shallow rooted vegetation. Oiled sediment may be transported to nearshore areas, contaminating them and burying benthic organisms.	
Low-Pressure, Ambient-Water Flushing	Removal of fluid oil that has adhered to the substrate or man-made structures, pooled on the surface, or become trapped in vegetation.	Ambient-temperature water (sea water) is sprayed at low pressure (<72 kilopascals (kpa)) from a hand-held hose, to lift oil from the substrate and float it to the water's edge for recovery by skimmers, vacuum or sorbents. Can be conducted from barges or flat-bottom vessels with long-reach spray systems. Usually used with a flooding systems to prevent released oil from re-adhering to the substrate downstream of the treatment area.	Preferred: Sandy Beach Possible: Manmade Structures Rocky shore Tidal Flats Shallow Seagrass	Where fluid oil is stranded onshore or floating on shallow intertidal areas.	May need to restrict use so that the oil/water effluent does not drain across sensitive intertidal habitats, and the mobilised sediments do not affect rich subtidal communities. Use from boats will reduce the need for foot traffic in soft substrates and vegetation. Flushed oil must be recovered to prevent further oiling of adjacent areas.	If containment methods are not sufficient, oil and oiled sediments may be flushed into adjacent areas. Flooding may cause sediment loss and erosion of the shoreline and shallow rooted vegetation. Some trampling of substrate and attached biota may occur.	Depends on the effectiveness of the collection method.

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	Objective	Description	Applicable Habitat Types	When to Use	Biological Constraints	Environmental Effects	Waste Generation
High-Pressure, Ambient-Water Flushing	To remove oil that has adhered to hard substrates or man-made structures.	Similar to low-pressure flushing, except that water pressure is 720-7,200 kpa. High-pressure spray will more effectively remove sticky or viscous oils.	Preferred: Manmade Structures	When low-pressure flushing is not effective at removing adhered oil, which must be removed to prevent continued oil release or for aesthetic reasons. When a directed water jet can remove oil from hard to reach sites.	May need to restrict flushing so that the oil does not drain across sensitive habitat. Flushed oil must be recovered to prevent further oiling of adjacent areas. Should not be used directly on attached algae nor rich, intertidal areas.	All attached animals and plants in the direct spray zone will be removed, even when used properly. If containment methods are not sufficient, oil and oiled sediments may be flushed into adjacent areas. Some trampling of substrate and attached biota may occur. Inappropriate use may drive oil deeper into the substrate or erode fine sediments from shorelines.	Depends on the effectiveness of the collection method
Hot-Water Flushing	To mobilise weathered and viscous oil strongly adhered to surfaces.	Hot water (32ºC up to 77 ºC) is sprayed with hand-held wands at low (<72 kpa) pressure/high (>720kpa) pressure – where appropriate. Requires immediate use of a vacuum/ sorbents or used with a flooding system, using booms and a skimmer/vacuum for collection.	Possible: Manmade Structures	Low-pressure flushing where heavy, relatively fresh oil is stranded onshore. High-pressure flushing on heavily weathered oil that is not effected by low-pressure flushing.	Use should be restricted so that the oil/water effluent does not drain across habitats sensitive to exposure by oil, oily sediments and hot water. Should not be used directly on attached algae nor rich, intertidal areas. Released oil must be recovered to prevent further oiling of adjacent habitats.	All attached animals and plants in the direct spray zone will be removed, even when used properly. Oiled sediment may be transported to shallow nearshore areas, contaminating them and burying benthic organisms.	Depends on the effectiveness of the collection method

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Appendix 2: Shoreline Personnel and Equipment Assumptions

Personnel calculations are based on the following:

- Based on 14 day shifts of workers.
- Based on oil stranding daily/Continuously.
- Based on 1 primary crew and a replacement crew in rotation.
- Based on Exxon Mobil Handbook for heavily oiled shorelines and resources required per km.
- Based on average of shoreline strategies for each shoreline type (See below for strategy %).

Manual Equipment based on the following

- Shovels – 1 per worker per week.
- Rakes – 1 per worker per week.
- Picks – 1 per worker per week.
- Plastic Bags – 50 per worker per day.
- Wheelbarrows – 1 per team (5 workers) per week.

Resource calculation Assumptions/limitations

- Remoteness, travel time to/from work locations.
- Vessels, Lodging, Food.
- Collection/transport of waste.
- Logistical resources needed not currently factored.
- Rates for mechanical clean up are extremely variable.
- There are multiple variations for all techniques - these are generalized needs for planning purposes only.
- Assumed 8-hour workdays.
- Not all oil comes ashore at once.
- Not all shoreline is cleaned at once.
- Some shorelines may be cleaned multiple times.

Strategy % employed per shoreline substrate type

Manmade Structures

- Flooding – 10%
- HP, ambient water flushing – 60%
- Hot water flushing – 10%
- Natural recovery – 10%

Rocky Shores (Sheltered)

- Natural recovery – 100%

Rocky Platform / Cliff face (exposed)

- Natural recovery – 100%

Sand Beach (mixed sand/shell)

- Manual removal – light oil – 20%
- Manual removal – Heavy oil – 30%
- Flooding – 20%
- Mechanical removal – 10%
- Natural Recovery – 10%

Tidal Flat (mud/sands) and vegetative salt/brackish marsh

- LP, ambient water flushing – 30%
- Natural recovery – 70%

Shallow Seagrass

- Natural Recovery – 100%

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Reefs

- Natural Recovery – 100%

Mangroves

- LP, Ambient water flushing – 20%
- Natural recovery – 80%

Other Assumptions

- Stochastic modelling used as opposed to Deterministic as the chances of deterministic occurring are slim. Stochastic gives a greater probability of where the oil could potentially go.
- Anything shoreline with less than 10% probability of shoreline contact of >100gm/m^2 not considered for shoreline clean up.
- Anything with only 10gm/m^2 is not actionable. The minimum actionable amount is 100gm/m^2.

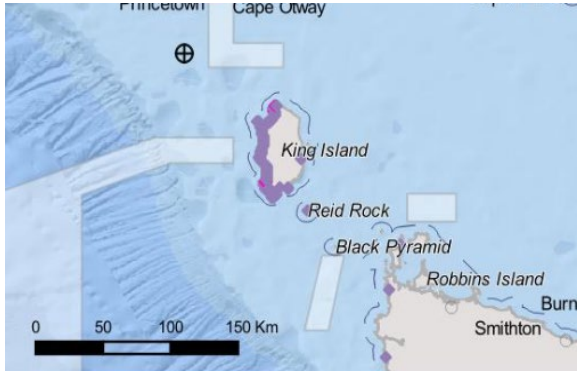
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Section 1 – Location 1 – Condensate – T/49P

Modelling - MAQ1155J Xodus COP T49P Oil Spill Modelling Final
Location 1 – T49P – Scenario 2
Summer - No Sectors affected > 10%
Winter - Sectors Affected
King Island (North) KI153 - KI161
King Island (South) - KI440 - KI451
South Gippsland (Waratah Bay & Wilsons Promontory West) CPL07 - WPS-05

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	84.77	78.31
Rocky Shoreline	4.52	4.17
Artificial Shoreline	0.00	0.00
Cliffs	2.04	1.89
Pebble, Cobble or Boulder or Shoreline	0.85	0.79
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	7.82	7.22
Unclassified	0.00	0.00
Total	**100.00**	**92.38**

Winter – King Island



Winter – South Gippsland



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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	92.38
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0
Rocky Shorelines (Sheltered)	4.52
Rocky Platform / Cliff Face (Exposed)	2.04
Sandy Beach (mixed sand/shell)	93.44
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **69**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	28	58	58	58	58
Worker	272	544	544	544	544
Specialised Operators	17	34	34	34	34
Total People	**317**	**636**	**636**	**636**	**636**
Vehicles/Vessels					
ATV	22	22	22	22	22
Truck/Vehicle	22	22	22	22	22
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	4	4	4	4	4
Scraper/Grader	1	1	1	1	1
Dump Truck	9	9	9	9	9
Landing Craft/Barge	3	3	3	3	3
Oil Spill Equipment					
Pump	5	5	5	5	5
Skimmer w/pump	3	3	3	3	3
Inshore Boom (m)	466	466	466	466	466
Sorbent Boom/snares (m)	466	466	466	466	466
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	78	78	78	78	78
Manual Equipment					
Shovels	440	882	1764	2646	3528
Rakes	440	882	1764	2646	3528
Picks	440	882	1764	2646	3528
Plastic Bags	22012	44024	88048	132072	176096
Wheel Barrows	88	178	356	534	712

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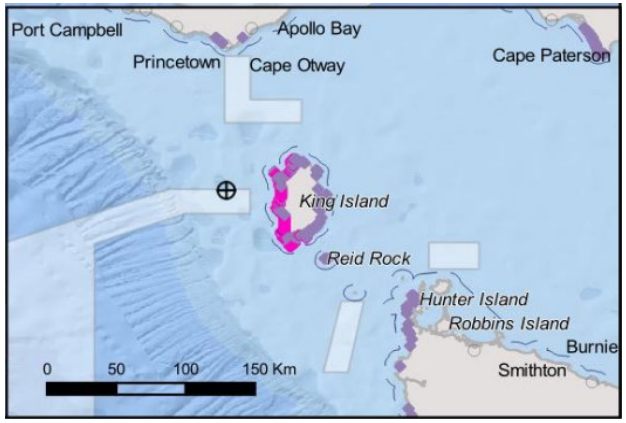
Section 2 – Location 2 – Condensate – T49P

Modelling - MAQ1155J Xodus COP T49P Oil Spill Modelling Final
Location 2 – T49P – Scenario 2
Summer - Sectors affected
King Island (KI173 - KI01, KI526 - KI375, All SKI)
Christmas Island (all)
New Years Island (all)
Winter - Sectors Affected
King Island (KI173 - KI01, KI526 - KI 382, All SKI)
Christmas Island (all)
New Years Island (all)

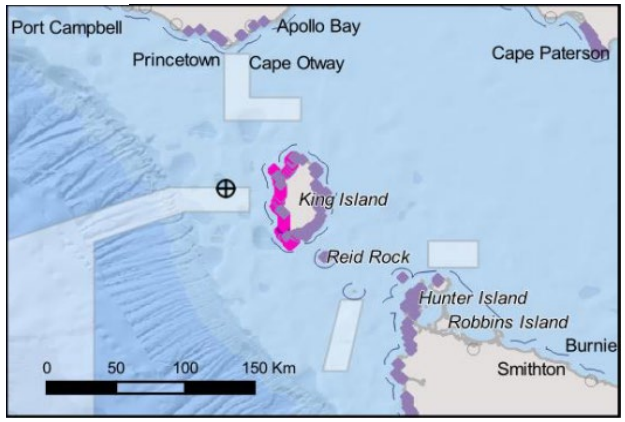
Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	25.03	36.05
Rocky Shoreline	60.14	86.62
Artificial Shoreline	0.28	0.40
Cliffs	9.96	14.35
Pebble, Cobble or Boulder or Shoreline	4.26	6.14
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	0.08	0.11
Unclassified	0.25	0.36
Total	**100.00**	**144.04**

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	23.81	33.28
Rocky Shoreline	60.90	85.11
Artificial Shoreline	0.29	0.40
Cliffs	10.27	14.35
Pebble, Cobble or Boulder or Shoreline	4.39	6.14
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	0.08	0.11
Unclassified	0.26	0.36
Total	**100.00**	**139.76**

Summer



Winter



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15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	144.04
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0.28
Rocky Shorelines (Sheltered)	60.14
Rocky Platform / Cliff Face (Exposed)	9.96
Sandy Beach (mixed sand/shell)	29.37
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0.25
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **34**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	14	30	30	30	30
Worker	134	268	268	268	268
Specialised Operators	8	18	18	18	18
Total People	**156**	**316**	**316**	**316**	**316**
Vehicles/Vessels					
ATV	11	11	11	11	11
Truck/Vehicle	11	11	11	11	11
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	2	2	2	2	2
Scraper/Grader	1	1	1	1	1
Dump Truck	4	4	4	4	4
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	3	3	3	3	3
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	233	233	233	233	233
Sorbent Boom/snares (m)	233	233	233	233	233
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	38	38	38	38	38
Manual Equipment					
Shovels	216	432	864	1296	1728
Rakes	216	432	864	1296	1728
Picks	216	432	864	1296	1728
Plastic Bags	10788	21576	43152	64728	86304
Wheel Barrows	43	88	176	264	352

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	139.76
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0.29
Rocky Shorelines (Sheltered)	60.9
Rocky Platform / Cliff Face (Exposed)	10.27
Sandy Beach (mixed sand/shell)	28.28
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0.26
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **32**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	13	28	28	28	28
Worker	125	252	252	252	252
Specialised Operators	8	16	16	16	16
Total People	**146**	**296**	**296**	**296**	**296**
Vehicles/Vessels					
ATV	10	10	10	10	10
Truck/Vehicle	10	10	10	10	10
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	2	2	2	2	2
Scraper/Grader	1	1	1	1	1
Dump Truck	4	4	4	4	4
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	2	2	2	2	2
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	218	218	218	218	218
Sorbent Boom/snares (m)	218	218	218	218	218
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	36	36	36	36	36
Manual Equipment					
Shovels	202	404	808	1212	1616
Rakes	202	404	808	1212	1616
Picks	202	404	808	1212	1616
Plastic Bags	10079	20158	40316	60474	80632
Wheel Barrows	40	82	164	246	328

Section 3 – Location 3 – Condensate – T49P

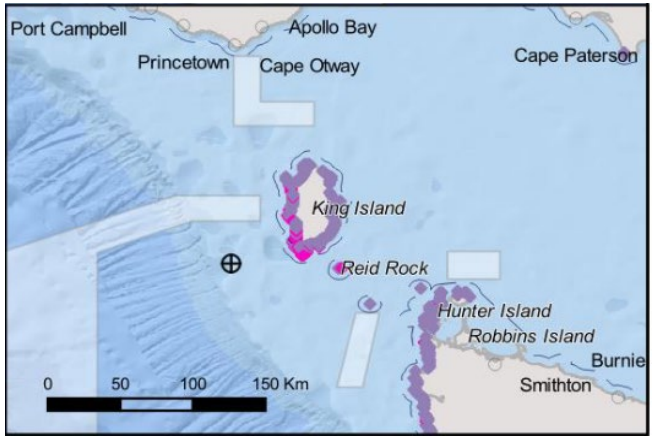
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Modelling - MAQ1155J Xodus COP T49P Oil Spill Modelling Final
Location 3 – T49P – Scenario 2
Summer - Sectors affected
King Island (KI126 - KI01)
King Island (KI526 - KI375)
King Island (All SKI)
Winter - Sectors Affected
King Island (KI126 - KI01)
King Island (KI526 - KI375)
King Island (All SKI)

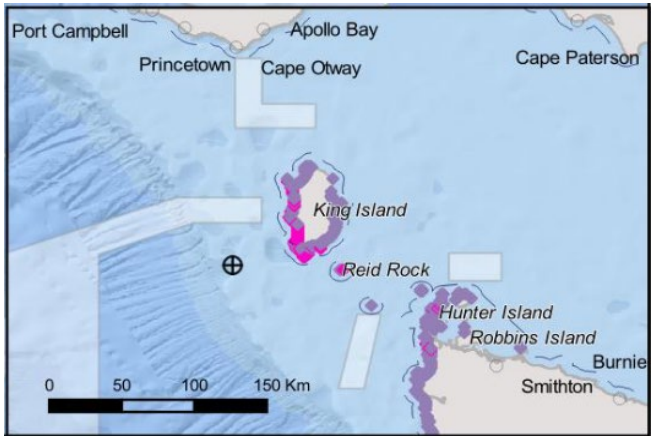
Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	20.11	21.90
Rocky Shoreline	62.97	68.57
Artificial Shoreline	0.37	0.40
Cliffs	12.24	13.33
Pebble, Cobble or Boulder or Shoreline	3.87	4.21
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	0.10	0.11
Unclassified	0.33	0.36
Total	**100.00**	**108.89**

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	20.11	21.90
Rocky Shoreline	62.97	68.57
Artificial Shoreline	0.37	0.40
Cliffs	12.24	13.33
Pebble, Cobble or Boulder or Shoreline	3.87	4.21
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	0.10	0.11
Unclassified	0.33	0.36
Total	**100.00**	**108.89**

Summer



Winter



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15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	108.89
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0.37
Rocky Shorelines (Sheltered)	62.97
Rocky Platform / Cliff Face (Exposed)	12.24
Sandy Beach (mixed sand/shell)	24.09
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0.33
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **21**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	9	18	18	18	18
Worker	83	168	168	168	168
Specialised Operators	5	12	12	12	12
Total People	**97**	**198**	**198**	**198**	**198**
Vehicles/Vessels					
ATV	7	7	7	7	7
Truck/Vehicle	7	7	7	7	7
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	1	1	1	1	1
Scraper/Grader	0	0	0	0	0
Dump Truck	3	3	3	3	3
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	2	2	2	2	2
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	147	147	147	147	147
Sorbent Boom/snares (m)	147	147	147	147	147
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	24	24	24	24	24
Manual Equipment					
Shovels	134	268	536	804	1072
Rakes	134	268	536	804	1072
Picks	134	268	536	804	1072
Plastic Bags	6689	13380	26760	40140	53520
Wheel Barrows	27	54	108	162	216

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	108.89
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0.37
Rocky Shorelines (Sheltered)	62.97
Rocky Platform / Cliff Face (Exposed)	12.24
Sandy Beach (mixed sand/shell)	24.09
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0.33
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **21**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	9	18	18	18	18
Worker	83	168	168	168	168
Specialised Operators	5	12	12	12	12
Total People	**97**	**198**	**198**	**198**	**198**
Vehicles/Vessels					
ATV	7	7	7	7	7
Truck/Vehicle	7	7	7	7	7
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	1	1	1	1	1
Scraper/Grader	0	0	0	0	0
Dump Truck	3	3	3	3	3
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	2	2	2	2	2
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	147	147	147	147	147
Sorbent Boom/snares (m)	147	147	147	147	147
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	24	24	24	24	24
Manual Equipment					
Shovels	134	268	536	804	1072
Rakes	134	268	536	804	1072
Picks	134	268	536	804	1072
Plastic Bags	6689	13380	26760	40140	53520
Wheel Barrows	27	54	108	162	216

Section 4 – Location 2 – MDO – T49P

Summer



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Modelling - MAQ1155J Xodus COP T49P MDO Oil Spill Modelling Rev0
Location 2 – T49P – Scenario 1
Summer - Sectors affected
King Island - Sector KI78 South to KI502
King Island - Sector KI448 down to SKI103
Winter - Sectors Affected
All NY Island
All Christmas Island
King Island - KI130 down to KI336

Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	17.00	11.02
Rocky Shoreline	58.58	37.96
Artificial Shoreline	0.62	0.40
Cliffs	19.78	12.82
Pebble, Cobble or Boulder or Shoreline	3.28	2.13
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	0.17	0.11
Unclassified	0.56	0.36
Total	**100.00**	**64.80**

Winter

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	55.82	66.11
Rocky Shoreline	34.99	41.44
Artificial Shoreline	2.83	3.35
Cliffs	3.59	4.25
Pebble, Cobble or Boulder or Shoreline	1.92	2.27
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	0.87	1.02
Unclassified	0.00	0.00
Total	**100.00**	118.44

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15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	64.8
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0.62
Rocky Shorelines (Sheltered)	58.58
Rocky Platform / Cliff Face (Exposed)	19.78
Sandy Beach (mixed sand/shell)	20.46
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0.56
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **11**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	4	10	10	10	10
Worker	42	86	86	86	86
Specialised Operators	3	6	6	6	6
Total People	**49**	**102**	**102**	**102**	**102**
Vehicles/Vessels					
ATV	3	3	3	3	3
Truck/Vehicle	3	3	3	3	3
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	1	1	1	1	1
Scraper/Grader	0	0	0	0	0
Dump Truck	1	1	1	1	1
Landing Craft/Barge	0	0	0	0	0
Oil Spill Equipment					
Pump	1	1	1	1	1
Skimmer w/pump	0	0	0	0	0
Inshore Boom (m)	76	76	76	76	76
Sorbent Boom/snares (m)	76	76	76	76	76
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	12	12	12	12	12
Manual Equipment					
Shovels	68	136	272	408	544
Rakes	68	136	272	408	544
Picks	68	136	272	408	544
Plastic Bags	3381	6762	13524	20286	27048
Wheel Barrows	14	28	56	84	112

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15% of total shoreline cleanup in a day

Winter Resources Required

Total Oiled Shoreline (km)	118.44
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	2.83
Rocky Shorelines (Sheltered)	34.98
Rocky Platform / Cliff Face (Exposed)	3.59
Sandy Beach (mixed sand/shell)	58.6
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active cleanup strategies **58**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	23	48	48	48	48
Worker	223	448	448	448	448
Specialised Operators	14	30	30	30	30
Total People	**261**	**526**	**526**	**526**	**526**
Vehicles/Vessels					
ATV	18	18	18	18	18
Truck/Vehicle	18	18	18	18	18
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	3	3	3	3	3
Scraper/Grader	1	1	1	1	1
Dump Truck	7	7	7	7	7
Landing Craft/Barge	2	2	2	2	2
Oil Spill Equipment					
Pump	5	5	5	5	5
Skimmer w/pump	2	2	2	2	2
Inshore Boom (m)	416	416	416	416	416
Sorbent Boom/snares (m)	416	416	416	416	416
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	1	1	1	1	1
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	64	64	64	64	64
Manual Equipment					
Shovels	354	708	1416	2124	2832
Rakes	354	708	1416	2124	2832
Picks	354	708	1416	2124	2832
Plastic Bags	17698	35398	70796	106194	141592
Wheel Barrows	71	142	284	426	568

Section 5 – Location 1 – Condensate – VIC/P79

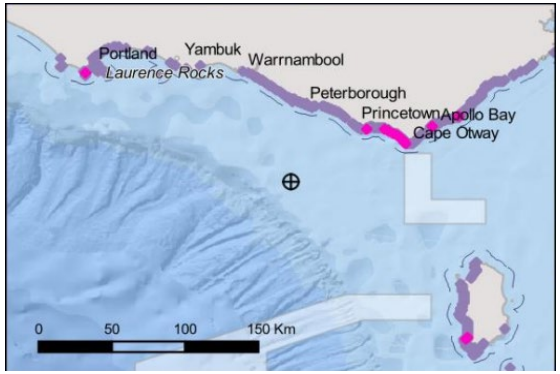
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Modelling - MAQ1203J Xodus COP VIC79 Oil Spill Modelling Rev0
Location 1 – VIC/P79 – Scenario 2
Summer - Sectors affected
Colac Otway LGA includes:
Cape Otway West LGA (All Sectors)
Apollo Bay LGA (PFL-01 - PFL-02, APB01 - APB-04)
Cape Paton LGA (GRR01 - GRR-04)
Winter - Sectors Affected
Colac Otway (Cape Otway West LGA, Cape Patton & Lorne LGA)
King Island (Sectors KI517 - KI443)
South Gippsland (Waratah Bay LGA, Wilsons Prom West LGA)

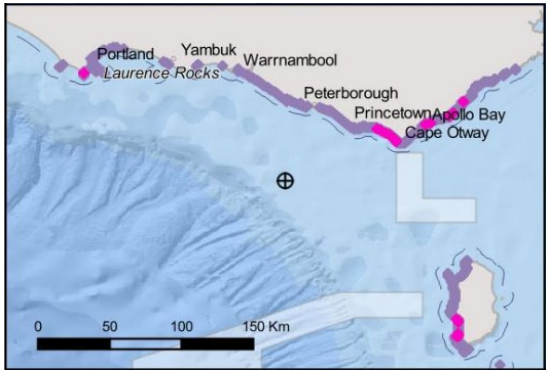
Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	6.75	3.25
Rocky Shoreline	40.32	19.42
Artificial Shoreline	0.52	0.25
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	52.41	25.24
Unclassified	0.00	0.00
Total	**100.00**	**48.15**

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	36.49	94.58
Rocky Shoreline	45.37	117.57
Artificial Shoreline	0.00	0.00
Cliffs	0.65	1.67
Pebble, Cobble or Boulder or Shoreline	0.41	1.06
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	17.08	44.27
Unclassified	0.00	0.00
Total	**100.00**	**259.15**

Summer



Winter





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15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	48.15
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0.52
Rocky Shorelines (Sheltered)	40.32
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	59.16
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **23**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	9	20	20	20	20
Worker	90	182	182	182	182
Specialised Operators	6	12	12	12	12
Total People	**105**	**214**	**214**	**214**	**214**
Vehicles/Vessels					
ATV	7	7	7	7	7
Truck/Vehicle	7	7	7	7	7
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	1	1	1	1	1
Scraper/Grader	0	0	0	0	0
Dump Truck	3	3	3	3	3
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	2	2	2	2	2
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	157	157	157	157	157
Sorbent Boom/snares (m)	157	157	157	157	157
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	26	26	26	26	26
Manual Equipment					
Shovels	145	292	584	876	1168
Rakes	145	292	584	876	1168
Picks	145	292	584	876	1168
Plastic Bags	7264	14528	29056	43584	58112
Wheel Barrows	29	60	120	180	240

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	259.15
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0
Rocky Shorelines (Sheltered)	45.37
Rocky Platform / Cliff Face (Exposed)	0.65
Sandy Beach (mixed sand/shell)	53.98
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **112**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	46	94	94	94	94
Worker	441	882	882	882	882
Specialised Operators	27	56	56	56	56
Total People	**514**	**1032**	**1032**	**1032**	**1032**
Vehicles/Vessels					
ATV	36	36	36	36	36
Truck/Vehicle	36	36	36	36	36
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	6	6	6	6	6
Scraper/Grader	2	2	2	2	2
Dump Truck	15	15	15	15	15
Landing Craft/Barge	4	4	4	4	4
Oil Spill Equipment					
Pump	8	8	8	8	8
Skimmer w/pump	4	4	4	4	4
Inshore Boom (m)	755	755	755	755	755
Sorbent Boom/snares (m)	755	755	755	755	755
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	126	126	126	126	126
Manual Equipment					
Shovels	713	1428	2856	4284	5712
Rakes	713	1428	2856	4284	5712
Picks	713	1428	2856	4284	5712
Plastic Bags	35672	71344	142688	214032	285376
Wheel Barrows	143	286	572	858	1144

Section 6 – Location 2 – Condensate – VIC/P79

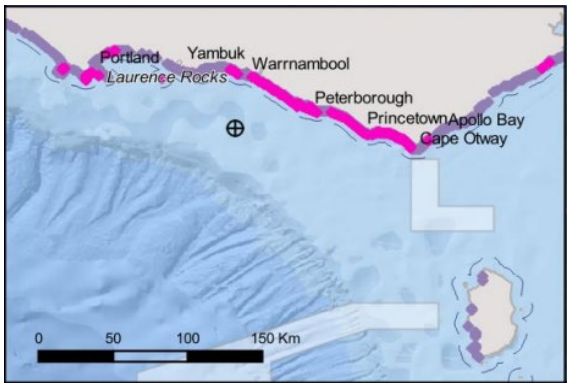
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Location 2 – VIC/P79 – Scenario 2
Summer - Sectors affected
Moyne (Sectors CRM-04 - PTF-10)
Warrnambool (WNB-09 - WNB-05)
Moyne 2 (All)
Corangamite (PCB-03 - CVN-02)
Colac Otway (CVN-02 - COW-01)
Winter - Sectors Affected
Moyne (CRM-05 - WNB-09)
Warrnambool (All)
Moyne 2 (All)
Corangamite (All)
Colac Otway (CVN-02 - PLW-01)

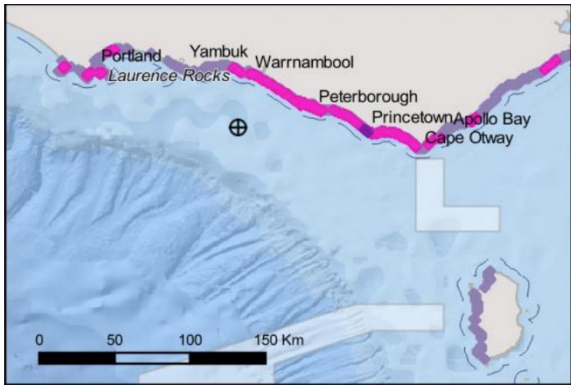
Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	5.74	8.80
Rocky Shoreline	46.54	71.39
Artificial Shoreline	0.00	0.00
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	47.72	73.19
Unclassified	0.00	0.00
Total	**100.00**	**153.38**

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	13.20	29.35
Rocky Shoreline	43.90	97.61
Artificial Shoreline	0.00	0.00
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	42.90	95.38
Unclassified	0.00	0.00
Total	**100.00**	**222.34**

Summer



Winter



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15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	153.38
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0
Rocky Shorelines (Sheltered)	46.54
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	53.46
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **66**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	27	56	56	56	56
Worker	258	518	518	518	518
Specialised Operators	16	32	32	32	32
Total People	**301**	**606**	**606**	**606**	**606**
Vehicles/Vessels					
ATV	21	21	21	21	21
Truck/Vehicle	21	21	21	21	21
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	4	4	4	4	4
Scraper/Grader	1	1	1	1	1
Dump Truck	9	9	9	9	9
Landing Craft/Barge	2	2	2	2	2
Oil Spill Equipment					
Pump	5	5	5	5	5
Skimmer w/pump	2	2	2	2	2
Inshore Boom (m)	443	443	443	443	443
Sorbent Boom/snares (m)	443	443	443	443	443
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	74	74	74	74	74
Manual Equipment					
Shovels	418	838	1676	2514	3352
Rakes	418	838	1676	2514	3352
Picks	418	838	1676	2514	3352
Plastic Bags	20909	41820	83640	125460	167280
Wheel Barrows	84	168	336	504	672

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	222.34
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0
Rocky Shorelines (Sheltered)	43.9
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	56.1
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **100**

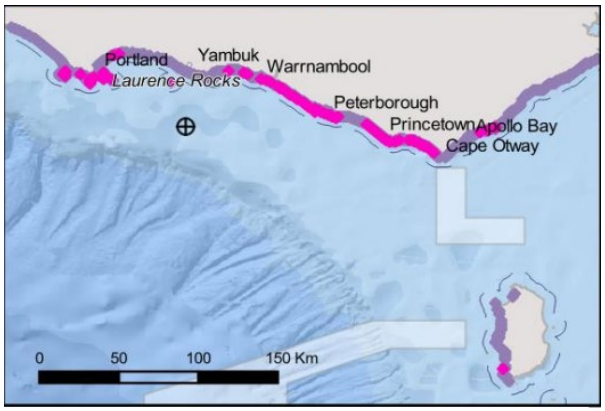
Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	41	84	84	84	84
Worker	393	786	786	786	786
Specialised Operators	24	50	50	50	50
Total People	**458**	**920**	**920**	**920**	**920**
Vehicles/Vessels					
ATV	32	32	32	32	32
Truck/Vehicle	32	32	32	32	32
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	6	6	6	6	6
Scraper/Grader	2	2	2	2	2
Dump Truck	13	13	13	13	13
Landing Craft/Barge	4	4	4	4	4
Oil Spill Equipment					
Pump	7	7	7	7	7
Skimmer w/pump	4	4	4	4	4
Inshore Boom (m)	674	674	674	674	674
Sorbent Boom/snares (m)	674	674	674	674	674
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	112	112	112	112	112
Manual Equipment					
Shovels	636	1274	2548	3822	5096
Rakes	636	1274	2548	3822	5096
Picks	636	1274	2548	3822	5096
Plastic Bags	31807	63614	127228	190842	254456
Wheel Barrows	127	256	512	768	1024

Section 7 – Location 3 – Condensate – VIC/P79

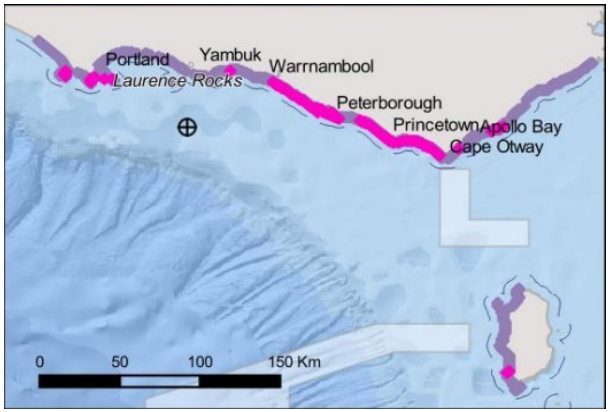
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Location 3 – VIC/P79 – Scenario 2
Summer - Sectors affected
Glenelg
Moyne
Moyne 2 (All)
Corangamite
Colac Otway
Winter - Sectors Affected
Glenelg
Moyne
Warrnambool
Moyne 2 (All)
Corangamite
Colac Otway

Summer



Winter



Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	15.57	42.69
Rocky Shoreline	38.38	105.22
Artificial Shoreline	3.62	9.91
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	42.43	116.30
Unclassified	0.00	0.00
Total	**100.00**	**274.12**

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	7.74	16.00
Rocky Shoreline	46.26	95.66
Artificial Shoreline	1.50	3.11
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	44.50	92.01
Unclassified	0.00	0.00
Total	**100.00**	**206.78**

15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	274.12
% of shoreline cleaned in 1 day.	15

Shoreline Type	%

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	54	108	108	108	108
Worker	514	1030	1030	1030	1030

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Manmade Structures	3.62
Rocky Shorelines (Sheltered)	38.38
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	58
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **135**

Specialised Operators	33	68	68	68	68
Total People	**601**	**1206**	**1206**	**1206**	**1206**
Vehicles/Vessels					
ATV	41	41	41	41	41
Truck/Vehicle	41	41	41	41	41
Vac Truck	1	1	1	1	1
Tank Truck	1	1	1	1	1
Front End Loader/Dozer	7	7	7	7	7
Scraper/Grader	2	2	2	2	2
Dump Truck	17	17	17	17	17
Landing Craft/Barge	5	5	5	5	5
Oil Spill Equipment					
Pump	11	11	11	11	11
Skimmer w/pump	6	6	6	6	6
Inshore Boom (m)	979	979	979	979	979
Sorbent Boom/snares (m)	979	979	979	979	979
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	3	3	3	3	3
Steam Cleaner	1	1	1	1	1
Shoreline flushing pipe length (m)	148	148	148	148	148
Manual Equipment					
Shovels	811	1622	3244	4866	6488
Rakes	811	1622	3244	4866	6488
Picks	811	1622	3244	4866	6488
Plastic Bags	40542	81086	162172	243258	324344
Wheel Barrows	162	326	652	978	1304

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	206.78
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	1.5
Rocky Shorelines (Sheltered)	46.26
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	52.24
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **89**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	36	74	74	74	74
Worker	344	690	690	690	690
Specialised Operators	22	44	44	44	44
Total People	**402**	**808**	**808**	**808**	**808**
Vehicles/Vessels					
ATV	28	28	28	28	28
Truck/Vehicle	28	28	28	28	28
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	5	5	5	5	5
Scraper/Grader	2	2	2	2	2
Dump Truck	11	11	11	11	11
Landing Craft/Barge	3	3	3	3	3
Oil Spill Equipment					
Pump	7	7	7	7	7
Skimmer w/pump	4	4	4	4	4
Inshore Boom (m)	621	621	621	621	621
Sorbent Boom/snares (m)	621	621	621	621	621
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	1	1	1	1	1
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	99	99	99	99	99
Manual Equipment					
Shovels	551	1102	2204	3306	4408
Rakes	551	1102	2204	3306	4408
Picks	551	1102	2204	3306	4408
Plastic Bags	27546	55092	110184	165276	220368
Wheel Barrows	110	222	444	666	888

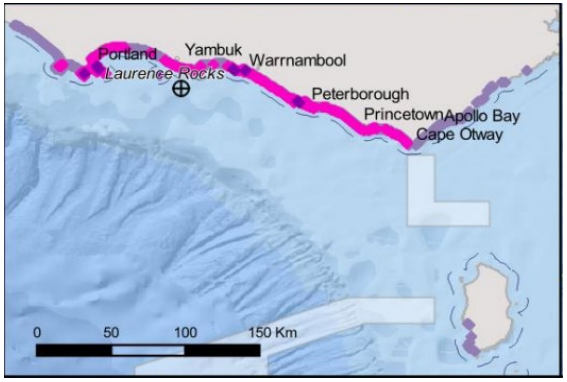
Section 8 – Location 4 – Condensate – VIC/P79

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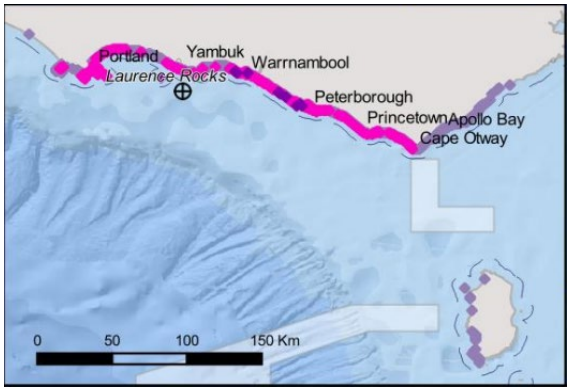
Location 4 – VIC/P79 – Scenario 2
Summer - Sectors affected
Glenelg (All)
Moyne (All)
Warrnambool (All)
Moyne 2 LGA (All)
Lady Julia Percy Islands (All)
Laurence Rocks (All)
Corangamite (All)
Colac Otway (CVN-02 - PFL-02)
Winter - Sectors Affected
Glenelg (All)
Moyne (All)
Warrnambool (All)
Moyne 2 (All)
Lady Julia Percy Islands (All)
Laurence Rocks (All)
Corangamite (All)
Colac Otway (CVN-02 - PFL-02)
South Gippsland (VEB-13 - CPL-10, WPW-04 - WPS-17)

Summer



Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	31.93	128.23
Rocky Shoreline	33.88	136.09
Artificial Shoreline	2.47	9.91
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	31.72	127.42
Unclassified	0.00	0.00
Total	**100.00**	**401.66**
Winter Shoreline breakdown	**%**	**Length (km)**
Sandy Beach or Shoreline	28.19	142.11
Rocky Shoreline	41.89	211.19
Artificial Shoreline	1.97	9.91
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	27.95	140.92
Unclassified	0.00	0.00
Total	**100.00**	**504.13**

Winter





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15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	401.66
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	2.47
Rocky Shorelines (Sheltered)	33.88
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	63.65
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **212**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	86	172	172	172	172
Worker	819	1638	1638	1638	1638
Specialised Operators	52	104	104	104	104
Total People	**956**	**1914**	**1914**	**1914**	**1914**
Vehicles/Vessels					
ATV	65	65	65	65	65
Truck/Vehicle	66	66	66	66	66
Vac Truck	1	1	1	1	1
Tank Truck	1	1	1	1	1
Front End Loader/Dozer	12	12	12	12	12
Scraper/Grader	4	4	4	4	4
Dump Truck	27	27	27	27	27
Landing Craft/Barge	8	8	8	8	8
Oil Spill Equipment					
Pump	17	17	17	17	17
Skimmer w/pump	9	9	9	9	9
Inshore Boom (m)	1501	1501	1501	1501	1501
Sorbent Boom/snares (m)	1501	1501	1501	1501	1501
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	3	3	3	3	3
Steam Cleaner	1	1	1	1	1
Shoreline flushing pipe length (m)	235	235	235	235	235
Manual Equipment					
Shovels	1304	2608	5216	7824	10432
Rakes	1304	2608	5216	7824	10432
Picks	1304	2608	5216	7824	10432
Plastic Bags	65192	130386	260772	391158	521544
Wheel Barrows	261	522	1044	1566	2088

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	504.13
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	1.97
Rocky Shorelines (Sheltered)	41.89
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	56.14
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **234**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	95	190	190	190	190
Worker	905	1810	1810	1810	1810
Specialised Operators	57	116	116	116	116
Total People	**1057**	**2116**	**2116**	**2116**	**2116**
Vehicles/Vessels					
ATV	72	72	72	72	72
Truck/Vehicle	73	73	73	73	73
Vac Truck	1	1	1	1	1
Tank Truck	1	1	1	1	1
Front End Loader/Dozer	13	13	13	13	13
Scraper/Grader	4	4	4	4	4
Dump Truck	30	30	30	30	30
Landing Craft/Barge	9	9	9	9	9
Oil Spill Equipment					
Pump	18	18	18	18	18
Skimmer w/pump	10	10	10	10	10
Inshore Boom (m)	1649	1649	1649	1649	1649
Sorbent Boom/snares (m)	1649	1649	1649	1649	1649
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	3	3	3	3	3
Steam Cleaner	1	1	1	1	1
Shoreline flushing pipe length (m)	259	259	259	259	259
Manual Equipment					
Shovels	1443	2888	5776	8664	11552
Rakes	1443	2888	5776	8664	11552
Picks	1443	2888	5776	8664	11552
Plastic Bags	72170	144340	288680	433020	577360
Wheel Barrows	289	578	1156	1734	2312

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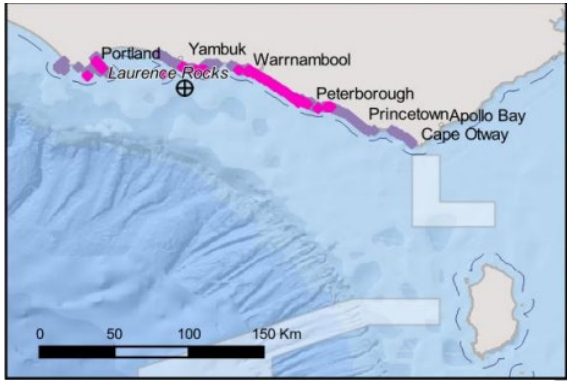
Section 9 – Location 4 – MDO – VIC/P79

Modelling - MAQ1203J Xodus COP VIC79 Oil Spill Modelling Rev0
Location 4 – VIC/P79 – Scenario 1
Summer - Sectors affected
Moyne (YBK-02 - PTF-10)
Moyne 2 (All)
Winter - Sectors Affected
Moyne (YBK-06 - CRM-07)
Moyne 2 (All)

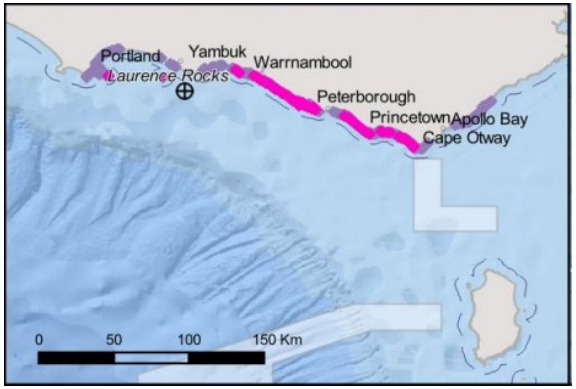
Summer Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	6.24	4.77
Rocky Shoreline	39.78	30.43
Artificial Shoreline	0.00	0.00
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	53.99	41.30
Unclassified	0.00	0.00
Total	**100.00**	**76.49**

Winter Shoreline breakdown	%	Length (km)
Sandy Beach or Shoreline	16.07	10.62
Rocky Shoreline	26.45	17.49
Artificial Shoreline	0.00	0.00
Cliffs	0.00	0.00
Pebble, Cobble or Boulder or Shoreline	0.00	0.00
Mixed Sandy and Pebble, cobble or boulder, beach or shoreline	57.48	38.00
Unclassified	0.00	0.00
Total	**100.00**	**66.10**

Summer



Winter



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Shoreline Protection and Clean-up Plan

15% of total shoreline clean up in a day

Summer Resources Required

Total Oiled Shoreline (km)	76.49
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0
Rocky Shorelines (Sheltered)	39.78
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	60.22
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **37**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	15	32	32	32	32
Worker	145	292	292	292	292
Specialised Operators	9	18	18	18	18
Total People	**169**	**342**	**342**	**342**	**342**
Vehicles/Vessels					
ATV	12	12	12	12	12
Truck/Vehicle	12	12	12	12	12
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	2	2	2	2	2
Scraper/Grader	1	1	1	1	1
Dump Truck	5	5	5	5	5
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	3	3	3	3	3
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	249	249	249	249	249
Sorbent Boom/snares (m)	249	249	249	249	249
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	41	41	41	41	41
Manual Equipment					
Shovels	235	470	940	1410	1880
Rakes	235	470	940	1410	1880
Picks	235	470	940	1410	1880
Plastic Bags	11746	23492	46984	70476	93968
Wheel Barrows	47	94	188	282	376

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15% of total shoreline clean up in a day

Winter Resources Required

Total Oiled Shoreline (km)	66.1
% of shoreline cleaned in 1 day.	15

Shoreline Type	**%**
Manmade Structures	0
Rocky Shorelines (Sheltered)	26.45
Rocky Platform / Cliff Face (Exposed)	0
Sandy Beach (mixed sand/shell)	73.55
Tidal Flats (Mud/Sand) and Vegetative salt/Brackish Marsh	0
Shallow Seagrass	0
Reef	0
Mangroves	0
Unclassified	0
Shoreline Total	100.00%

Total Shoreline length with active clean up strategies **39**

Resources Needed					
Personnel	**14 days**	**28 days**	**56 days**	**84 days**	**112 days**
Foreman	16	34	34	34	34
Worker	153	308	308	308	308
Specialised Operators	9	20	20	20	20
Total People	**179**	**362**	**362**	**362**	**362**
Vehicles/Vessels					
ATV	12	12	12	12	12
Truck/Vehicle	12	12	12	12	12
Vac Truck	0	0	0	0	0
Tank Truck	0	0	0	0	0
Front End Loader/Dozer	2	2	2	2	2
Scraper/Grader	1	1	1	1	1
Dump Truck	5	5	5	5	5
Landing Craft/Barge	1	1	1	1	1
Oil Spill Equipment					
Pump	3	3	3	3	3
Skimmer w/pump	1	1	1	1	1
Inshore Boom (m)	263	263	263	263	263
Sorbent Boom/snares (m)	263	263	263	263	263
Washing Unit (Low Pressure)	0	0	0	0	0
Pressure Washer	0	0	0	0	0
Steam Cleaner	0	0	0	0	0
Shoreline flushing pipe length (m)	44	44	44	44	44
Manual Equipment					
Shovels	248	496	992	1488	1984
Rakes	248	496	992	1488	1984
Picks	248	496	992	1488	1984
Plastic Bags	12397	24796	49592	74388	99184
Wheel Barrows	50	100	200	300	400

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Appendix 2: AMOSC Current Equipment List

Product Totals by Location Report

Friday, 24 March 2023
8:17:59 AM

Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
Broome						
2	2		G-033	Dispersant Spray-Afedo System 200-TS	Dispersant Spray Equipment	Supply Base 3
1	1		G-041	Power Pack-Lamor Hydraulic LPP 14	Power Packs, Pumps & Accessories	Supply Base 3
1	1		G-052	Skimmer-Minimax 12-Brush	Skimmer	Supply Base 3
2	2	400	G-092	Boom-Lamor HDB 1300 (200m)on Reel	Boom	Supply Base 3
4	4	100	G-110	Boom-Beach Guardian Shoreseal (20m)	Boom	Supply Base 3
8	8	200	G-111	Boom-Zoom Boom (25m)	Boom	Supply Base 3
1	1		G-130	Boom Accessories-Beach Guardian Deployment Kit	Boom Accessories	Supply Base 3
4	4		G-133	Boom Accessories-Zoom Boom Anchor Kit	Boom Accessories	Supply Base 3
1	1		G-141	Waste (Land)-Vikotank (13000Ltr)	Waste Storage	Supply Base 3
13	13		G-150	Sorbent-Boom	Sorbents	Supply Base 3
4	4		G-151	Sorbent-Squares	Sorbents	Supply Base 3
3	3		G-184	Shipping Container	General	Supply Base 3
1	1		G-330	Wildlife-Oiled fauna kit	Decontamination	Supply Base 3
1	1		G-331	Decontamination-Kit (PPE)	Decontamination	Supply Base 3
1	1		G-400	Boom Cage	Misc	Supply Base 3
1	1		G-401	Boom Cage	Misc	Supply Base 3
1	1		G-500	Response tool box	General	Supply Base 3
14	14		G-607	Dispersant-Ardrox 6120	Dispersant	DG Shed
Exmouth						
1	1		G-030	Dispersant Spray-Viko Spray	Dispersant Spray Equipment	Harold Holt
1	1		G-033	Dispersant Spray-Afedo Ecospray 80W	Dispersant Spray Equipment	Harold Holt
1	1		G-040	Power Pack-Desmi Ro-Boom	Power Packs, Pumps & Accessories	Harold Holt
1	1		G-051	Skimmer-Komara 12K-Disc	Skimmer	Harold Holt
1	1		G-052	Skimmer-Minimax 12-Brush	Skimmer	Harold Holt
1	1		G-054	Skimmer-Passive-Weir	Skimmer	Harold Holt
1	1		G-070	Skimmer-Ro-Vac-Vacuum	Skimmer	Harold Holt
1	1		G-079	Skimmer-Desmi GT 185-Brush/Weir	Skimmer	Harold Holt
2	2		G-090	Hydraulic Powered reel Winder- Roboom	Boom Accessories	Harold Holt
2	2	400	G-091	Boom-Desmi Ro-Boom 1500 (200m)	Boom	Harold Holt

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Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
20	20	500	G-110	Boom-Beach Guardian Shoreseal (20m)	Boom	Harold Holt
20	20	500	G-111	Boom-Zoom Boom (25m)	Boom	Harold Holt
3	3		G-130	Boom Accessories-Beach Guardian Deployment Kit	Boom Accessories	Harold Holt
1	1		G-132	Boom Accessories-Shoreline Boom Anchoring kit	Boom Accessories	Harold Holt
10	10		G-133	Boom Accessories-Zoom Boom Anchor Kit	Boom Accessories	Harold Holt
2	2		G-140	Waste (Land)-Fastank Temporary Storage (9000Ltr)	Waste Storage	Harold Holt
1	1		G-150	Sorbent-Boom	Sorbents	Harold Holt
1	1		G-160	Skimmer-Desmi Ro Mop 240-Oil Mop	Skimmer	Harold Holt
1	1		G-181	Trailer-General Support	Trailer	Harold Holt
2	2		G-184	Shipping Container	General	Harold Holt
10	10		G-186	Shoreline Accessories-Wheelbarrow	General	Harold Holt
1	1		G-260	Genarator-Hatz 15kva (12kw)	Trailer	Harold Holt
1	1		G-330	Wildlife-Oiled fauna kit	Decontamination	Harold Holt
1	1		G-335	Decontamination-Kit (PPE)	Decontamination	Harold Holt
1	1		G-336	Decontamination-Kit Locker	Decontamination	Harold Holt
1	1		G-337	Shoreline Accessories-Hand Tool Accessories Cage	General	Harold Holt
3	3		G-400	Boom Cage	Misc	Harold Holt
5	5		G-401	Boom Cage	Misc	Harold Holt
30	30		G-604	Dispersant-Slickgone NS	Dispersant	Harold Holt
45	45		G-605	Dispersant-Slickgone NS	Dispersant	Harold Holt
1	1		G-610	Dispersant-Agitator	General	Harold Holt
1	1		G-888	Miscellaneous Items	General	Harold Holt
Fremantle						
1	1		G-029	Dispersant Spray-Boom Vane (Containerised)	Dispersant Spray Equipment	Outside Warehouse
1	1		G-030	Dispersant Spray-Viko Spray	Dispersant Spray Equipment	
1	1		G-032	Dispersant Spray-Transfer Pump	Dispersant Spray Equipment	ABM Container
5	5		G-033	Dispersant Spray-Afedo System 100-TS	Dispersant Spray Equipment	Outside Warehouse
1	1		G-034	Dispersant Spray-Global Boat Spray	Dispersant Spray Equipment	Outside Warehouse
1	1		G-035	Pump-Lamor GTA 30 Oil Transfer	Power Packs, Pumps & Accessories	2D
4	4		G-037	Pump-Honda GX-160 Water (2")	Power Packs, Pumps & Accessories	Outside Warehouse
5	5		G-039	Boom Accessories-Air Blower-2 Stroke	General	Outside Warehouse
1	1		G-040	Power Pack-Desmi Ro-Boom	Power Packs, Pumps & Accessories	4B

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Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
3	3		G-042	Power Pack-Lamor Hydraulic LPP 36	Power Packs, Pumps & Accessories	12, 13, 14
1	1		G-043	Power Pack-Lamor Hydraulic LPP 7	Power Packs, Pumps & Accessories	
1	1		G-044	Boom Accessories-Lamor Control Stand for LPP36	Power Packs, Pumps & Accessories	2A
3	3		G-045	Boom Accessories-Lamor Air Blower-Hydraulic	General	12, 13, 14
1	1		G-051	Skimmer-Komara 12K-Disc	Skimmer	3B, 3E
2	2		G-052	Skimmer-Minimax 12-Brush	Skimmer	2C, 2F, 2B, 2E
1	1		G-053	Skimmer-Komara 20K-Disc	Skimmer	3C, 3F
1	1		G-054	Skimmer-Passive-Weir	Skimmer	4C, 4F
2	2		G-060	Skimmer-Lamor Rock Cleaner-Brush	General	1C, 1F, 1B, 1E
3	3		G-081	Skimmer-Lamor LWS500-Brush/Weir	Skimmer	12, 13, 14
6	6		G-090	Hydraulic Powered reel Winder- Roboom	Boom Accessories	14, 13, 12
6	6	1200	G-091	Boom-Desmi Ro-Boom 1500 (200m)	Boom	14, 13, 12
1	1	36	G-093	Boom-Lamor HDB 1500 (100m)	Boom	Bay A
19	19	475	G-110	Boom-Beach Guardian Shoreseal (20m)	Boom	Outside Warehouse
34	34	850	G-111	Boom-Zoom Boom (25m)	Boom	4 A/D, Outside Warehouse, Bay L
18	18	540	G-112	Boom-Lamor SFB-18 GP Solid Floatation (30m)	Boom	Outside Warehouse
2	2		G-130	Boom Accessories-Beach Guardian Deployment Kit	Boom Accessories	4E
3	3		G-131	Boom Accessories-Ro-Boom Anchoring System	Boom Accessories	12, 13, 14
28	28		G-133	Boom Accessories-Zoom Boom Anchor Kit	Boom Accessories	Outside Warehouse
1	1		G-139	Waste (Land)-Fastank Temporary Storage (3000Ltr)	Waste Storage	Outside Warehouse
1	1		G-140	Waste (Land)-Fastank Temporary Storage (9000Ltr)	Waste Storage	Outside Warehouse
2	2		G-142	Waste (On-Water)-Lancer Storage Barge (25000Ltr)	Waste Storage	Outside Warehouse
3	3		G-143	Waste (On-Water)-Deck Bladder Storage (25000Ltr)	Waste Storage	Outside Warehouse
4	4		G-144	Waste (Land)-Lamor TemporaryStorage (11400Ltr)	Waste Storage	Outside Warehouse
1	1		G-161	Skimmer-Desmi Ro Mop 260-Oil Mop	Skimmer	Warehouse 2
2	2		G-172	Forklift - Crown 2.5 Tonne	Vehicle	Warehouse, Fremantle Warehouse
1	0		G-180	Trailer-Mobile Workshop	Trailer	Warehouse 3
2	2		G-181	Trailer-Tandem (Galvanised)	Trailer	Outside Warehouse
5	5		G-183	Aluminium Container	General	Outside Warehouse
8	8		G-184	Shipping Container	General	Outside Warehouse
4	4		G-188	Monitoring/Surveillance-Voyager Drift Buoy	Communications	Bay 1A
1	1		G-199	Wildlife-Bird Scarer	Wildlife Support	1D
1	1		G-200	Vessel-Zodiac Pro 500 (4.7Mtr)	Vessel	Warehouse

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Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
1	1		G-251	PPE- Inflatable PFD Set of 24	General	12 C/F
3	3		G-259	Generator	General	Warehouse, Wildlife Container, ABM Container
1	1		G-262	Decontamination-Vehicle Washdown Trailer	Trailer	Warehouse 2
1	1		G-325	Wildlife-Fauna Hazing & Exclusion Kit	Wildlife Support	
3	3		G-326	Wildlife-Fauna Hazing & Exclusion Kit	Wildlife Support	Warehouse
1	1		G-332	Wildlife-Washdown Container	Wildlife Support	Outside Warehouse
1	1		G-333	Shoreline-Support Kit	General	3A
1	1		G-334	Shoreline-Flushing Kit (3")	Power Packs, Pumps & Accessories	3D
1	1		G-336	Decontamination-Kit Locker	Decontamination	7 C/F
1	1		G-339	PPE-PPE Response Container (SCFU 1114735)	General	Outside Warehouse
1	1		G-350	Airbase Management Container	Misc	
2	2		G-400	Boom Cage	Misc	5 A/D, 4 A/D
8	8		G-605	Dispersant-Slickgone NS	Dispersant	Outside Warehouse, Dispersant Area
27	27		G-606	Dispersant-Corexit 9500	Dispersant	Outside Warehouse, Dispersant Area
1	1		G-610	Dispersant-Agitator	General	Warehouse
1	1		G-700	Monitoring/Surveillance-Phantom 4 Drone	General	Head Office
1	1		G-750	Monitoring/Surveillance-Aerial Surveillance Kit	General	Head Office
1	1		G-755	Backpack-Response Backpacks	General	
2	2		G-808	Monitoring/Surveillance-4-1 Personnal Gas Monitor	General	Warehouse
1	1		G-809	Monitoring/Surveillance-Air Quality Monitoring Kit	Misc	Head Office
4	4		G-850	Ancilliaries box 1	General	Outside Warehouse
4	4		G-851	Ancilliaries Box 2	General	Outside Warehouse
2	2		G-889	Oil sampling kit	General	Outside Warehouse
3	3		G-890	Sorbent-Boom	Sorbents	Outside Warehouse
3	3		G-891	Sorbent-Squares	Sorbents	Outside Warehouse
1	1		G-950	AMOSC Vehicles	Vehicle	Warehouse
1	1		G-960	Vehicle-ATV- CF Moto u550 (1GQM058)	Vehicle	Warehouse
Nth Geelong						
1	1		G-029	Dispersant Spray-Boom Vane (Containerised)	Dispersant Spray Equipment	Outside Warehouse
2	2		G-030	Dispersant Spray-Viko Spray	Dispersant Spray Equipment	Bay D
1	1		G-032	Dispersant Spray-Transfer Pump	Dispersant Spray Equipment	ABM Container
4	4		G-033	Dispersant Spray-Afedo System 100-TS	Dispersant Spray Equipment	Outside Warehouse, Bay D

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Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
1	1		G-035	Pump-Lamor GTA 30 Oil Transfer	Power Packs, Pumps & Accessories	Bay P
1	1		G-040	Power Pack-Desmi Ro-Boom	Power Packs, Pumps & Accessories	Bay A
3	3		G-042	Power Pack-Lamor Hydraulic LPP 36	Power Packs, Pumps & Accessories	Bay A, Container G-184-20 (STS)
1	1		G-044	Boom Accessories-Lamor Control Stand for LPP36	Power Packs, Pumps & Accessories	Bay K
3	3		G-045	Boom Accessories-Lamor Air Blower-Hydraulic	General	Bay A
2	1		G-050	Skimmer-Komara 30K-Disc	Skimmer	Bay J
2	2		G-051	Skimmer-Komara 12K-Disc	Skimmer	Bay J
1	1		G-052	Skimmer-Minimax 12-Brush- SDS	Skimmer	Bay G
1	1		G-054	Skimmer-Passive-Weir	Skimmer	Bay K
2	2		G-060	Skimmer-Lamor Rock Cleaner-Brush	General	Bay O
3	3		G-070	Skimmer-Ro-Vac-Vacuum	Skimmer	Bay P
1	1		G-079	Skimmer-Desmi GT 185-Brush/Weir	Skimmer	Bay C
1	1		G-080	Skimmer-Desmi 250-Weir	Skimmer	Outside Warehouse
3	3		G-081	Skimmer- Lamor LWS500-Brush/Weir	Skimmer	Bay A, Container G-184-02 (STS)
1	1		G-083	Skimmer-Canadyne Multi Head-Brush/Disc/Drum	Skimmer	Bay K
1	1		G-084	Skimmer-Versatech Multi Head-Brush/Disc/Drum	Skimmer	Bay C
11	11		G-090	Hydraulic Powered reel Winder- Roboom	Boom Accessories	Bay A
10	10	2000	G-091	Boom-Desmi Ro-Boom 1500 (200m)	Boom	Bay A
134	134	3350	G-110	Boom-Beach Guardian Shoreseal (20m)	Boom	Bay L, Training Trailer
131	131	3275	G-111	Boom-Zoom Boom (25m)	Boom	Bay L, Training Trailer, Outside Warehouse
40	39	1200	G-112	Boom-Lamor SFB-18 GP Solid Floatation (30m)	Boom	Outside Warehouse, Bay L, Training Trailer
1	1		G-113	Boom System- NOFI Current Buster 2	Boom	
1	1		G-114	Boom System-Desmi Speed Sweep	Boom	Bay E
34	34	408	G-115	Boom-Harrier Shoreseal (12m)	Boom	Bay L
3	3		G-120	Pump-General Purpose Diaphragm (3")	Power Packs, Pumps & Accessories	Bay P
1	1		G-121	Pump-Desmi DOP 250 Transfer	Power Packs, Pumps & Accessories	Bay P
8	8		G-130	Boom Accessories-Beach Guardian Deployment Kit	Boom Accessories	Training Trailer, Bay M
3	3		G-131	Boom Accessories-Ro-Boom Anchoring System	Boom Accessories	Bay A
4	4		G-132	Boom Accessories-Shoreline Boom Anchoring kit	Boom Accessories	Bay M
30	30		G-133	Boom Accessories-Zoom Boom Anchor Kit	Boom Accessories	Training Trailer, Bay K
2	2		G-135	Boom Accessories-Dual Hull magnet (1000Kg)	Boom Accessories	Charging Station Area
1	1		G-139	Waste (Land)-Fastank Temporary Storage (3000Ltr)	Waste Storage	Bay M
3	3		G-140	Waste (Land)-Fastank Temporary Storage (9000Ltr)	Waste Storage	Training Trailer, Bay M

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Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
1	1		G-141	Waste (Land)-Vikotank (13000Ltr)	Waste Storage	Bay M
2	2		G-142	Waste (On-Water)-Lancer Storage Barge (25000Ltr)	Waste Storage	Bay F, Container G-184-20 (STS)
3	3		G-143	Waste (On-Water)-Deck Bladder Storage (25000Ltr)	Waste Storage	Bay G
65	65		G-150	Sorbent-Boom	Sorbents	Bay N
40	40		G-151	Sorbent-Squares	Sorbents	Bay N
96	96		G-152	Sorbent-Viscous Oil Snares	Sorbents	Bay N
11	11		G-153	Sorbent-Roll	Sorbents	Bay N
1	1		G-160	Skimmer-Desmi Ro Mop 240-Oil Mop	Skimmer	Trailer Bay
1	1		G-161	Skimmer-Desmi Ro Mop 260-Oil Mop	Skimmer	Trailer Bay
1	1		G-162	Vessel-Egmopol Barge w/t Brush Skimmer-AMOSC 1	Skimmer	Warehouse
2	2		G-172	Forklift-Hyster 2 Tonne	Vehicle	Warehouse
1	1		G-180	Decontamination-Decon Support Trailer	Trailer	Trailer Bay
3	3		G-181	Trailer-General Support	Trailer	Trailer Bay
1	1		G-182	Trailer-Egmopol	Trailer	Warehouse
1	1		G-183	Aluminium Container	General	
12	12		G-184	Shipping Container	General	Outside Warehouse, Dispersant Area
18	18		G-185	Waste (Land/Onwater)-IBC	Waste Storage	North Wall
4	4		G-188	Monitoring/Surveillance-Voyager Drift Buoy	Communications	
1	1		G-201	Vessel-Aluminium Catamaran (9Mtr)AMOSC 3	Vessel	Warehouse
1	1		G-251	PPE- Inflatable PFD Set of 32	General	Warehouse
4	4		G-259	Generator	General	Bay, Wildlife Container, ABM Container
1	1		G-260	Cleaning-Generator/Karcher Pressure Washer Unit	Trailer	Trailer Bay
1	1		G-261	Shoreline-Flushing Kit (4")	General	Bay O
1	1		G-262	Decontamination-Vehicle Washdown Trailer	Trailer	Trailer Bay
2	2		G-263	Cleaning-Diesel Pressure Washer	Power Packs, Pumps & Accessories	Bay O
1	1		G-325	Wildlife-Fauna Hazing & Exclusion Kit	Wildlife Support	
2	2		G-330	Wildlife-Oiled fauna kit	Decontamination	Bay H
1	1		G-332	Wildlife-Washdown Container	Wildlife Support	Outside Warehouse
1	1		G-334	Shoreline-Flushing Kit (3")	Power Packs, Pumps & Accessories	Bay O
1	1		G-335	Decontamination-PPE Kit (First Strike Support)	Decontamination	Bay I
1	1		G-336	Decontamination-Kit Locker	Decontamination	Bay I
1	1		G-338	Shoreline-Impact Lance Kit	Power Packs, Pumps & Accessories	Bay O
1	1		G-339	PPE-PPE Response Container (TCIU 1962281)	General	Outside Warehouse

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Quantity	Available	Length	Product#	Product Name	Product Category	Bay Location
1	1		G-350	Airbase Management Container	Misc	Outside Warehouse
27	27		G-400	Boom Cage	Misc	Bay 12, Bay L
18	18		G-401	Boom Cage	Misc	Bay L, Bay K
1	1		G-500	Response tool box	General	Warehouse Store
8	8		G-604	Dispersant-Slickgone NS	Dispersant	Bay 0
67	67		G-605	Dispersant-Slickgone NS	Dispersant	Bay 0
62	62		G-606	Dispersant-Corexit 9500	Dispersant	Bay 0, Outside Warehouse
1	1		G-610	Dispersant-Agitator	General	Dispersant
2	2		G-700	Monitoring/Surveillance-DJI Spark	General	Head Office
1	1		G-750	Monitoring/Surveillance-Aerial Surveillance Kit	General	Head Office
2	2		G-755	Backpack-Response Backpacks	General	Head Office
1	1		G-760	Dispersant-Effectiveness Field Test Kit	Dispersant	Head Office
1	1		G-770	Monitoring/Surveillance-Shoreline Surveillance Kit	Misc	Head Office
6	6		G-808	Monitoring/Surveillance-4-1 Personnal Gas Monitor	General	Warehouse
1	1		G-889	Oil sampling kit	General	Outside warehouse
2	2		G-890	Sorbent-Boom	Sorbents	Outside warehouse
2	2		G-891	Sorbent-Squares	Sorbents	Outside warehouse
3	3		G-950	AMOSC Vehicles	Vehicle	Warehouse, Head Office
1	1		G-960	Vehicle-ATV- CF Moto u550	Vehicle	Warehouse

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Appendix 3: Contact Directory

Contact	Phone	Email	Notes
AMSA Marine Pollution	Within Aus: 1300 641 792 Outside Aus: +61 2 6230 6811		Online POLREP: https://amsa-forms.nogginoca.com/public/polrep.html
AMSA Rescue Coordination Centre – Aviation	Within Aus: 1800 815 257 Outside Aus: +61 2 6230 6889		
AMSA Rescue Coordination Centre – Maritime	Within Aus: 1800 641 792 Outside Aus: +61 2 6230 6811		
Australian Marine Oil Spill Centre	Office: +61 3 5272 1555 Duty Officer: +61 438 379 328	amosc@amosc.com.au spills@amosc.com.au	
ConocoPhillips Emergency Call Centre	+61 8 6324 0341		
ConocoPhillips Brisbane	+61 7 3182 7302		
TasPorts King Island	+61 3 6461 1155		
TasPorts Head Office	1300 366 742	reception@tasports.com.au	
Port of Portland – After Hours & Emergencies	+61 3 5525 2450		
Port of Portland Office	+61 3 5525 2450	info@portofportland.com.au	
Port of Portland Pilots After Hours	+ 61 3 5525 2499		
Port of Apollo Bay	+61 3 5232 9475		
NOPSEMA Incident Notification	1300 674 472	submissions@nopsema.gov.au	
NOPSEMA General enquiries	+61 8 6188 8700	communications@nopsema.gov.au	
VIC Department of Transport State Duty Officer	+61 409 858 715		No text messages
VIC Maritime Incident Emergency Contact	1300 965 784	maritimeincidents@transportsafety.vic.gov.au	
Ports Victoria Harbour Master	+61 3 9644 9777		
Ports Victoria Melbourne VTS	+61 3 9644 9700		
Port of Hastings Duty Officer (Incident Notifications)	+61 437 645 026		
Port of Hastings Office	+61 3 5979 5500	enquiries@portofhastings.vic.gov.au	
Gippsland Ports On-Call officer	+61 408 185 591	feedback@gippslandports.vic.gov.au	Marine Pollution contact number
Gippsland Ports Head Office	+61 3 5150 0500		
Warrnambool City Council	+61 3 5559 4800		Warrnambool Airport and Harbour contact number.
Department of Energy, Environment and Climate Action (DEECA) State Agency Commander	1300 13 44 44	Sccvic.scmdr.delwp@scc.vic.gov.au	

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Contact	Phone	Email	Notes
DEECA State Duty Officer Wildlife Emergencies	1300 114 828	Sccvic.sdo.delwpwildlife@scc.vic.gov.au	
Parks Victoria Duty Officer	13 19 63		
First Peoples State Relations – Victoria	1800 762 003	Aboriginalaffairs@dpc.vic.gov.au	Previously Aboriginal Affairs
Tasmanian Office of Aboriginal Affairs	+61 3 6232 7569	oaa@dpac.tas.gov.au	
TasEPA – Pollution Incident Reporting	1800 005 171 Business Hrs: +61 3 6165 4599	incidentresponse@epa.tas.vic.gov.au	Also contactable via Radio: TasPorts Vessel Traffic Services VHF radio channel 16/14/12 Call sign “relevant port name VTS"
TasEPA – General Number	+61 3 6165 4599	enquiries@epa.tas.gov.au	
King Island Airport	+ 61 3 6462 9000		
King Island Council	+ 61 3 6462 9000	kicouncil@kingisland.tas.gov.au	
Tasmanian Department of Natural Resources and Environment (Tas NRE)	1300 368 550		General Information
MCP Wildlife Co-ordinator (Tas) – 24 hours	+ 61 427 942 597 (0427 WHALES)		Contact in the event of an oil spill of any size
Tasmania Parks and Wildlife – General Enquiries	1300 827 727		
Tasmania Parks and Wildlife – King Island	+61 3 6462 1608	KingIsland@parks.tas.gov.au	
Beach Energy	+61 8 8338 2833		
Cooper Energy	+61 8 8100 4900		
Victorian State Control Centre	1300 287 289	Sccvic.reception@scc.vic.gov.au	
Geelong Port Head Office	1800 979 717		

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Appendix 4: Oil Spill Trajectory Modelling Request Form

Oil Spill Trajectory Modelling (OSTM)

Computer based OSTM is used to help estimate the track of an oil slick in real time using live wind, weather, and current data. This service is provided by RPS Group and is accessible directly via the Conoco Phillips or AMOSC membership contracts. RPS has been used extensively to help run the predictive modelling used in this OPEP.

To predict the early movement of a level 2 or level 3 oil spill, real time OSTM will be generated by RPS. This information is typically available within 4 hours of request and can be constantly improved by feeding in real time observational data from aerial surveillance and satellite tracking buoys.

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Incident ☐ Exercise ☐

PROCEDURE FOR INITIATING SPILL MODELLING – FOR OIL SPILLS

Clear form

1. Complete the form with all details – provide estimates and detail uncertainties.
2. Call the RPS Response duty officer on (**0408 477186**) to alert them of the requirement for spill modelling explaining the general details and seeking clarification as required.
3. Send the form to **RPSresponse@rpsgroup.com** (click on the email address).

If new information becomes available, inform the duty officer by telephone and then email updates.

Date and time of this notification:

Contact details

Name of the company	
Name of contact person	
Contact number (include country/area codes)	
Email address for return communications	

Details of spilled material (include oil assay if available)

Oil name					
Type or description					
Latitude of source	Degrees:		Minutes:		Seconds:
Longitude of source	Degrees:		Minutes:		Seconds:
Date and time spill started					
Time zone (+ or - from UTC)					
If slicks have been observed from an unknown source, provide map information to define the bounds					
Do you want forecasting forward in time from this location or back-track to an unknown source?	☐ Forward from slick area			Geographic bounds of slick area(s) and time of observation must be supplied	
	☐ Back-track from slick area				
	☐ Forward and back-track				

Depth, type of discharge

Depth of release	☐ Surface	☐ Subsurface – specify the depth (m)	
If from subsurface, describe the discharge energy	☐ Low turbulence e.g. low-pressure leak		
	☐ Medium turbulence e.g. intermediate-pressure leak		
	☐ High turbulence e.g. well blow out, ruptured pipeline		

Volume or rate of release

Short spills that have ended	Volume:		Units:		Duration (hours):
Ongoing spills	Rate:		Units:		per hour

Notes (describe special details of the incident, special concerns, landmarks, doubts about information, etc.)

Documents attached

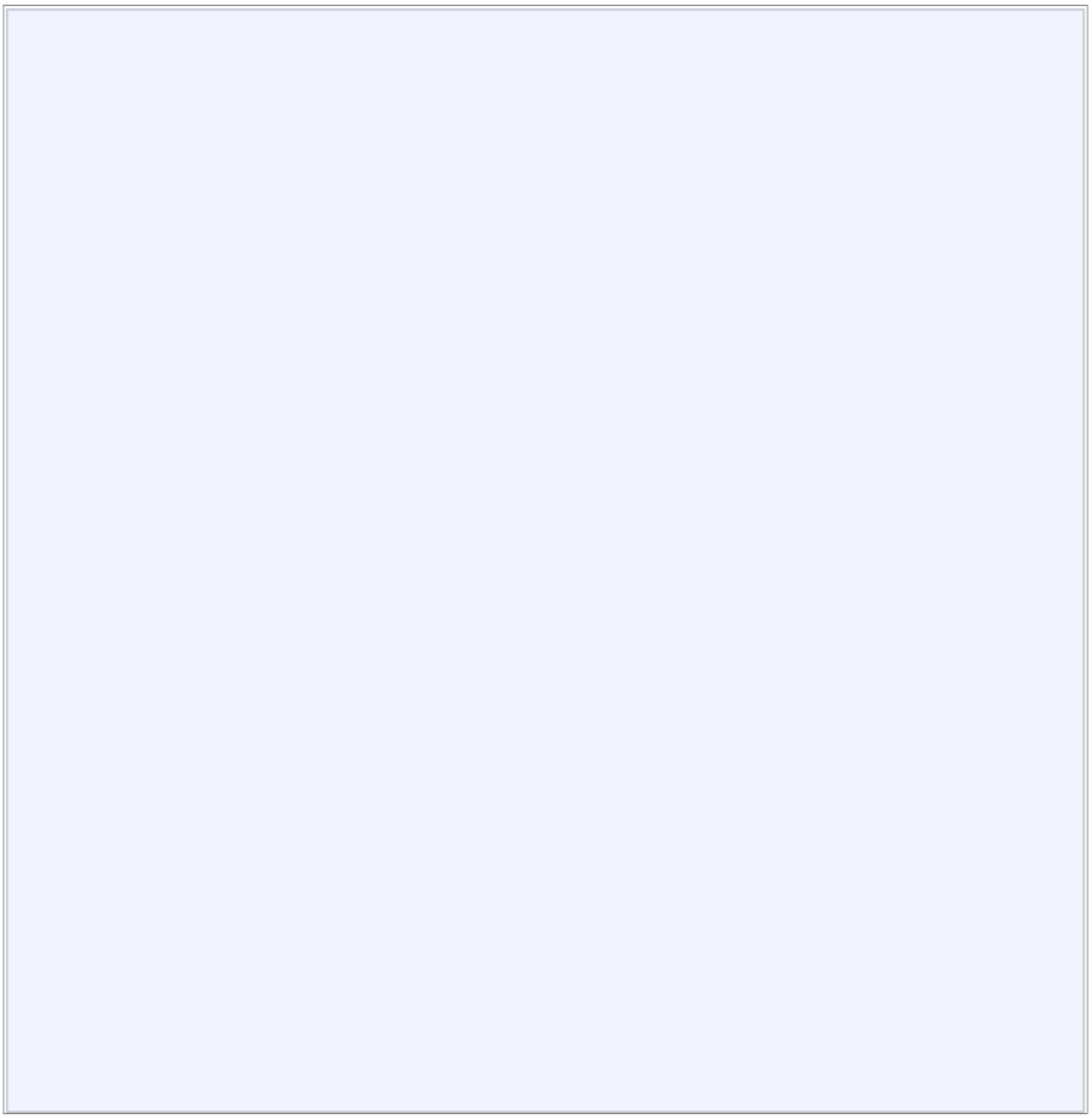
☐ Oil Assay sheet ☐ Safety data sheet ☐ Local wind measurements
☐ Spill site photos ☐ Aerial surveillance maps ☐ Line drawings showing oil distribution
☐ Others (specify):

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PROCEDURE FOR REQUESTING UPDATED OIL SPILL MODELLING

1. Revise the input form for any changes.
2. If surveillance is available to define the observed location of slicks, this information should be provided to the duty officer in a form that can be translated to define the spatial distribution and relative thickness of the oil. Formats that would be useful include:
   a. A GIS (shp) file defining the oil distribution (including the datum format)
   b. Satellite imagery that includes spatial references
   c. Photographs with location references
   d. A line drawing marked with estimated centre and edge locations, length and width dimensions, and relative thickness contours (use the space below making sure to provide spatial references)
   e. Location of tracking buoys (confirm first that these are marking the slick location).
3. Call the RPS Response duty officer on (**0408 477186**) to request an update to the spill modelling for changed details, explaining what has changed and seeking clarification as required.
4. Send the form and any files to **RPSresponse@rpsgroup.com** (click on email address).



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Appendix 5: Status Board

Typical status boards to support common operating picture:

Status Board 1	Initial Incident Details
Status Board 2	Initial Assessment (10 Q's) (Appendix 8)
Status Board 3	IAP Template
Status Board 4	Notifications
Status Board 5	Action Tracker
Status Board 6	NEBA Template
Status Board 7	Resources at Risk
Status Board 8	SMEACS template

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Appendix 6: SITREP Form

Sitrep number	**#1**	**Date and time**					
Section 1 – CALL OUT DETAILS							
Member Company		*Name of spiller*					
Contact details	**Name:**						
	IMT Position:	*If assigned*					
	Location:						
	Mobile:						
	Landline:						
	Email:						
Call Out Authorised by:		*If different from above*					
Call Out Authority Confirmed:		***YES***		***NO***			
Current AMOSC status:		***Advice Only***		***Forward Notice***		***Stand-By***	***Mobilise***
EXERCISE ONLY							
Section 2 – SPILL DETAILS							
Date / time of incident							
Description of incident		*Source? Cause of spill? Type of facility (installation, vessel, rig, pipeline)?*					
First Strike Actions:		*If any.* *IMT in place? Resources deployed?*					
Description of hydrocarbon on water		*Colour, weathering, slick dimensions, approximate area of coverage?*					
Situation	Estimated volume						
	Source contained	***YES***		***NO***			
	Flow rate						
Location	**Name / Description**						
		Latitude:		**Longitude:**			
Hydrocarbon properties		**Name**		**Pour Point**	°C/ °F		
		API/SG		**Wax Content**	%		
		Viscosity		**Asphaltene %**	%		
		Sample Available:	*Yes / no*	**MSDS Available:**	*Yes / no*		
Section 3 – AMOSC RESPONSE							
Initial resources requested				**QRG / OPEP Referenced?**			
Advice		*Liaison*					
OSTM		*FWADC*					
SFRT		*Core Group*					
SCAT		*Equipment*					
OWR							
Resources deployed (if any)							
Sensitivities at risk (if known) *Estimated time of contact*							
Section 4 – EXTERNAL CONDITIONS							
Weather		*Wind speed / direction, sea state, sea temp, air temp, high tide, low tide, currents*					
Safety/Security Considerations							

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Appendix 7: POLREP Form

Australian Government
Australian Maritime Safety Authority

HARMFUL SUBSTANCES REPORT (POLREP)

Marine Order 91 *(Marine pollution prevention – Oil)*

To: General Manager, Response
through Joint Rescue Coordination Centre (JRCC) Australia

Telephone: +61 (0)2 6230 6811
Freecall: 1800 641 792 (within Australia)
AFTN: YSARYCYX
E-mail: rccaus@amsa.gov.au

Note: If any of the following items of the vessel reporting format are inappropriate they should be omitted from the report. These items of the standard reporting format are referred to in IMO Resolution A.851(20).

A. Name of vessel | Call sign | Flag

B. Date and time of event *(Note: Time must be expressed as Coordinated Universal Time (UTC))*

C. Position: latitude and longitude
or
D. Position: true bearing and distance

E. True course (as a three digit group)

F. Speed (in knots and tenths of a knot as a 3-digit group)

L. Route information – details of intended track

M. Full details of radio stations and frequencies being guarded

N. Time of next report *(Note: Time must be expressed as Coordinated Universal Time (UTC))*

P. Type and quantities of cargo and bunkers on board

Q. Brief details of defects, damage, deficiencies or other limitations.
These must include the condition of the vessel and the ability to transfer cargo, ballast or fuel

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R. Brief details of actual pollution. These should include the type of oil, an estimate of the quantity discharged, whether the discharge is continuing, the cause of the discharge and, if possible, an estimate of the movement of the slick

S. Weather and sea conditions, including wind force and direction and relevant tidal or current details

T. Name, address, telephone and facsimile numbers of the vessel's owner and representative *(manager or operator of the vessel, or their agents)*

Owner		Representative	
Telephone	Facsimile	Telephone	Facsimile

U.

Type of vessel	Length	Breadth	Tonnage

X. 1. Action being taken with regard to the discharge and to the movement of the vessel

2.Assistance or salvage efforts which have been requested or which have been provided by others

3. The master of an assisting or salvaging vessel should report the particulars of the action undertaken or planned

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Appendix 8: Initial Assessment Checklist

STATUS BOARD 2 — INITIAL ASSESSMENT

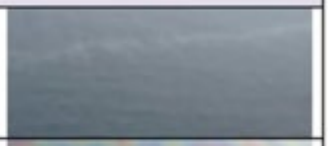
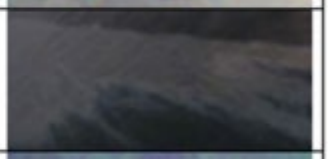
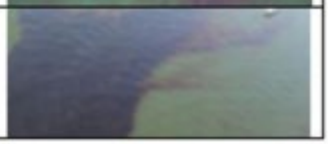
10 Questions of Spill Assessment

What is it?	*Oil Type* *Oil Name* *Oil Properties* *Specific Gravity/Viscosity/Pour Point* *Asphaltenes/Wax Content/Boiling Point @ 200C*
Where is it?	*Lat/Long* *Distance and Bearing*
How big is it?	*Area* *Volume* *Colour Appearance*
Where is it going?	*Weather Conditions* *Currents and Tides*
Is the source contained?	*Instantaneous or Continuous Release*
What is in the way?	*Resources/Sensitivities at risk*
When will it get there?	*How much time do you have to respond?* *Basic spill trajectory modelling*
What is happening to it?	*Weathering process*
What is the worst credible scenario?	*What if?* *So what?*
What can we do?	

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Appendix 9: Bonn Agreement Reference Diagrams

Code	Description / Appearance	Layer Thickness Interval (Microns)	Litres per km^2	Typical Appearance
1	Sheen (silver / grey)	0.04-0.30	40-300	
2	Rainbow	0.30-5.0	300-5,000	
3	Metallic	5.0-50	5,000-50,000	
4	Discontinuous True Oil Colour	50-200	50,000-200,000	
5	Continuous True Oil Colour	>200	>200,000	

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Appendix 10: Aerial Surveillance Form

Aerial Surveillance

Aerial Surveillance is one of the quickest most effective ways of providing the IMT with real time information surrounding an oil spill. Aircraft provide a much better platform than vessels to observe, quantify and position the spill. Aerial Surveillance gives the IMT the ability to plan for and decide on response strategies early. It is the quickest way of providing the IMT with situational awareness surrounding an oil spill.

Fixed wing or rotary wing aircraft can be utilised to perform aerial surveillance; however some aircraft are better suited to further offshore than others. Considerations will need to be made prior to selecting an observation platform based on distance from shore, weather conditions and flight duration.

In order to properly quantify the oil on water, trained aerial observers are required to implement the Bonn Agreement Oil Appearance Code (BAOAC) (See Appendix 9).

This technique allows a trained aerial observer to accurately estimate the quantity of oil on water based on how it looks. The different appearance corresponds with different thicknesses, combined with area calculations and coverage estimates, equates to a volume estimation.

Trained aerial observers are available via the AMOSC membership and can be stood up within 4 hours of activation. Aerial Observation is typically performed twice a day to get current, accurate positional data of the oil spill, along with up-to-date quantification data. This data can be used to help improve Oil Spill Trajectory Modelling predictions and help guide operational and planning decisions in the IMT.

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Incident		**Date**		**Observers**	
Aircraft Type		**Call Sign**		**Area of Survey**	
Survey Start Time		**Survey End Time**		**Average Altitude**	
Wind Speed (knots)		**Wind Direction**		**Notes**	
Cloud Base (feet)		**Visibility (nm)**			
Time High Water		**Time Low Water**			
Current Speed (nm)		**Current Direction**			

SLICK DETAILS

Slick	TIME local	SLICK (CNTR or START)		SLICK (END)		SLICK ORIENT Degrees	OIL SLICK LENGTH			OIL SLICK WIDTH			AREA km²	COVERAGE %	OILED AREA km²
		LAT N/S	LONG E/W	LAT N/S	LONG E/W		SOG kt	TIME Seconds	DISTANCE km	SOG kt	TIME Seconds	DISTANCE km			
A															
B															
C															
D															
E															

Slick	OIL APPEARANCE COVERAGE - %						MINIMUM VOLUME - m³	MAXIMUM VOLUME - m³	TYPE OF DETECTION (etc. visual, IR)
	1	2	3	4	5	OTH			
A									
B									
C									
D									
E									

THE BONN AGREEMENT OIL APPEARANCE CODE (BAOAC)			
No	OIL APPEARANCE	MIM. VOLUME m3 / km2	MAX. VOLUME m3 / km2
1	SHEEN	0.04	0.30
2	RAINBOW	0.30	5.00
3	METALLIC	5.00	50.0
4	DISCONTINUOUS TRUE COLOUR	50.0	200
5	TRUE COLOUR	200	>200

NOTE: *Ground Speed (SOG) is the speed of the aircraft relative to the ground (sea) measured in knots (kt). One knot is one nautical mile (nm) per hour.*

1 kt = 1 nm per hour = 1.85 Kilometres (km) per hour = 0.03 km (31m) per minute = 0.0005 km per second

EXAMPLE: A helicopter, flying at 80 knots, takes 120 seconds to fly along the length of an oil slick.

(Speed x Time = Distance) 80 knots x 120 seconds =/ 80 x 1.85 x 120 / 60 / 60 = 148 kph x 0.03 hr = 4.9 km

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Appendix 11: Shoreline Assessment Guide and Form

Shoreline Assessment Form

Please ensure that a hazard risk assessment has been carried out prior to commencing the activity.

1. ASSESSMENT DETAILS:				
Incident name:		**Location:**		
Survey Date:	*(DD/MM/YY)*	**Survey Time:**	**From:**	**To:**
Team Leader:		**Team Members:**		
Reporting to:		**Position/Organisation:**		
Date rec'd (FOB/IMT):		**Time received:**		
2. LOCATION DETAILS				
Sector:		**Segment:**		
Survey Start GPS:		**Survey End GPS:**		
Access:	Ensure Traditional Owners have been consulted and requirements met for access			
	☐ Foot ☐ Road ☐ 4WD ☐ Boat ☐ Helicopter ☐ UAV ☐ ATV			
Weather:	☐ Sun ☐ Clouds ☐ Rain ☐ Snow ☐ Fog ☐ Windy ☐ Calm			
Site Exposure:	☐ Exposed ☐ Semi-exposed ☐ Semi-protected ☐ Protected ☐ Unsure			
3. TIMING				
First Assessment:	☐ **Yes** ☐ **No**	**Last Assessment:**	☐ **Yes** ☐ **No**	
Timing:	☐ **Pre-Impact** – No oil on shoreline yet ☐ **Post-Impact** – Before clean-up ☐ **Post-Impact** – After or during clean-up			
Time Since:	**Impact (days/hrs):**		**Last Clean-up (days/hrs):**	

4. SHORELINE ASSESSMENT				
Parameter	**Shoreline Tidal Zones**			
	LITZ	**MITZ**	**UITZ**	**Supratidal**
Shoreline Description				
Shoreline Type:				
Substrate Type:				
Length of Shoreline (m):				
Width of Shoreline (m):				
Oil Distribution and Character				
Oil Cover Length (m):				
Oil Cover Width (m):				
Oil Cover (%):				
Oil Thickness:				
Oil Appearance:				
Depth of Buried Oil (cm):				
Buried Oil Description:				
Other				
Oiled Debris (Y/N?):				
Wildlife Observed (Y/N?):				

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5. SENSITIVITIES		
Biological *e.g., species & habitat types*	**Economical** *e.g., profitable amenities/business*	**Sociological** *e.g., community/cultural sites*

Sketch Map: Please include North arrow and scale.

Comments: e.g. access, amenities, operational restrictions, wildlife, car-parks, lay-down facilities.

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Appendix 12: KSAT Emergency Request Form

KSAT KONGSBERG SATELLITE SERVICES

Emergency Order Form

Call **+4777661300** ***AND*** email this form to: **emergency@ksat.no**

Customer Info

Client Name	Project Name	Contract Ref.	TEOS Procedure
AMOSC	AMOSC	Con-19-215	AMOSC 2019

Order form date (DD/MM/YYYY)

Client point of contact #1	Email	Phone

Client point of contact #2	Email	Phone

Area of Interest (AOI)

Shape file / kml file **OR** Center position – Lat / Lon — Coordinate format

Image acquisition time

☐ Order first possible image* **OR/AND** ☐ Generate feasibility study for approval – specify start /stop dates (max 5 days) / Additional comments on time, frequency, etc.

***NB: Order first possible image** constitutes a purchase order. Emergency orders carry additional fees as detailed in the contract # UI164285

Preferred satellites and modes to cover current emergency (select 1 per satellite)

1.Radarsat-2	2.TerraSAR-X/PAZ	3.Cosmo-SkyMED*	Oil Season Services
☐ ScanSAR Narrow			
☐ Wide	☐ ScanSAR Wide	☐ ScanSAR - Huge Region	☑ Oil Spill detection report
☐ Wide Fine	☐ ScanSAR	☐ ScanSAR – Wide Region	
☐ Standard	☐ Stripmap	☐ StripMap - HIMAGE	
☐ Fine	☐ Spotlight (SL)	☐ Spotlight – 2 (10x10)	
☐ Spotlight	☐ HR Spotlight (HR)	☐ Spotlight – 2 (7x7)	

4.GAOFEN-3	5. SENTINEL 1A/B**
☐ NSC	☐ Check short term availability
☐ SS	
☐ FS-2	
☐ FS-1	
☐ UFS-1	
☐ SL	

*2/3 DTO's are recommended per ordering of Cosmo-SkyMED
**Sentinel-1A/B cannot be tasked

Any other comments

Order Approval — **Order Approved by:**

Date / Place

Official copy located in EDMS. Unstamped, printed copies are UNCONTROLLED documents and MAY NOT BE CURRENT

Appendix 13: AMOSC Mutual Aid Request Form

Attachment 3
Available Services Request for Mutual Aid (clause 9)

Defined terms in this Available Services Request for Mutual Aid (**Services Request**) have the meaning given to them in the Master Service Contract (MSC) between AMOSC and you.

AMOSC has received a request for services from another AMOSC Member. AMOSC requests, in accordance with clause 9 of the MSC that you provide (or procure that an Affiliate provide) the following equipment, personnel or services as indicated below:

EQUIPMENT

☐ AMOSC requests Equipment

Type	Quantity	

CONSUMABLES

☐ AMOSC requests Consumables

Type	Quantity	

PERSONNEL

☐ AMOSC requests Personnel

Category or name of Personnel	Number	

AMOSC MASTER SERVICE CONTRACT – ATTACHMENT 3
PRO FORMA – AVAILABLE SERVICES REQUEST FOR MUTUAL AID page 1

Please state below:

- what equipment, consumables and/or personnel (as requested) (if any) can be provided by you or your Affiliate:

  [*Insert*]

  (being 'Available Resources'); and

- the timeframe for the provision of those Available Resources:

  [*Insert*]

Following completion please sign date and return this Request to AMOSC by email.

In returning this Request you acknowledge that the Available Resources will be provided to AMOSC on the terms of clause 9 of the MSC.

SIGNED by **[name of authorised representative]** as authorised representative for **[Member]** in the presence of:

.....
Signature of witness

.....
Name of witness (block letters)

.....
By executing this Request the signatory warrants that the signatory is duly authorised to execute this Request on behalf of **[Member]**

Date [insert]

PRO FORMA

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APPENDIX J AIR EMISSIONS ASSESSMENT

ConocoPhillips Australia

Otway Drilling - Detailed Assessment

Greenhouse Gas Emissions Technical Summary

ASSIGNMENT P100273-S02
DOCUMENT P-100273-S02-A-REPT-001

XODUS

Perth

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REV	DATE	DESCRIPTION	ISSUED	CHECKED	APPROVED	CLIENT
1	25/01/2024	Issued for use	[redacted]	[redacted]	[redacted]	[redacted]
0	08/05/2023	Issued for use	[redacted]	[redacted]	[redacted]	[redacted]
C	05/05/2023	Issued for review	[redacted]	[redacted]	[redacted]	[redacted]
B	28/03/2023	Issued for review	[redacted]	[redacted]	[redacted]	[redacted]
A	22/12/2022	Issued for review	[redacted]			

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GREENHOUSE GAS EMISSIONS TECHNICAL SUMMARY

ConocoPhillips Australia is preparing to conduct an Otway Exploration Drilling Program, hereinafter referred to as the Activity, within permits T/49P and VIC/P79. An Environment Plan is currently being prepared based on the 'design envelope' which is a five-year timeframe from January 2024 to end 2028. In relation to the EP, this technical summary presents the worst-case and expected direct and indirect greenhouse gas (GHG) emissions estimate for the Activity.

The direct emissions refer to the GHG emissions emitted from sources owned or controlled by ConocoPhillips Australia (such as flaring and fugitive emissions); and the indirect emissions refer to the GHG emissions from sources not owned or controlled by ConocoPhillips Australia (such as embodied carbon of materials used). The boundary of assessment is shown in Table 1. The direct GHG emissions include flaring (no cold venting planned), with fugitive emissions assumed to be immaterial. The indirect GHG emissions include the emission sources from mobile offshore drilling unit (MODU), vessels, helicopters, and materials (only the major items – cement, casing/conductor and water-based drilling fluid (WBDF) considered).

The GHG emissions inventory for the Activity was calculated based on the methodology in the National Greenhouse and Energy Reporting (Measurement) Determination 2008 (Clean Energy Regulator, 2023). The input information and assumptions used are provided in the Appendix.

Table 1 : Boundary of assessment.

Activity	Surveys	Well Drilling and Testing	Plug and Abandonment
Direct GHG Emissions	*Inclusion(s):* -	*Inclusion(s):* • Flaring	*Inclusion(s):* -
	Exclusion(s): -	*Exclusion(s):* • Fugitives[1]	*Exclusion(s):* • Fugitives[1]
Indirect GHG Emissions	*Inclusion(s):* • Vessels (inc. ROV)	*Inclusion(s):* • MODU • Vessels • Helicopters • Materials[2]	*Inclusion(s):* • MODU • Vessels • Helicopters • Materials[2]
	Exclusion(s): • Employee commuting[1]	*Exclusions:* • Waste generated[1] • Employee commuting[1]	*Exclusions:* • Waste generated[1] • Employee commuting[1]

[1] Assumed immaterial.

[2] Materials refer to the major items – cement, casing/conductor, and water-based drilling fluid (WBDF).

As shown in Table 2, assuming worst-case conditions, for example the longest possible drilling duration for each well and maximum flaring duration and rates on each well, the total worst-case GHG emissions are estimated to be approximately 247 kt CO_2-e over the project life, consisting of 87 kt CO_2-e (35.0%) and 160 kt CO_2-e (65.0%) of the direct and indirect emissions, respectively. As shown in Figure 1, emissions from vessels, flaring, MODU, helicopters, and materials represent 36.7%, 35.0%, 21.1%, 0.6%, and 6.6% of the total emissions, respectively. The total GHG emissions estimate is approximately 0.01% of the Australian carbon budget, for the duration of the Activity (Department of Climate Change, Energy, the Environment and Water, 2022).

Table 2: Summary of worst-case estimated GHG emissions.

Emission source	Total GHG Emissions (t CO_2-e)	Percentage
Direct emissions:	86,500	35.0%
Flaring	86,500	35.0%
Indirect emissions:	160,500	65.0%
Vessels	90,600	36.7%
MODU	52,000	21.1%
Helicopters	1,500	0.6%
Materials	16,300	6.6%
TOTAL	247,000	100%

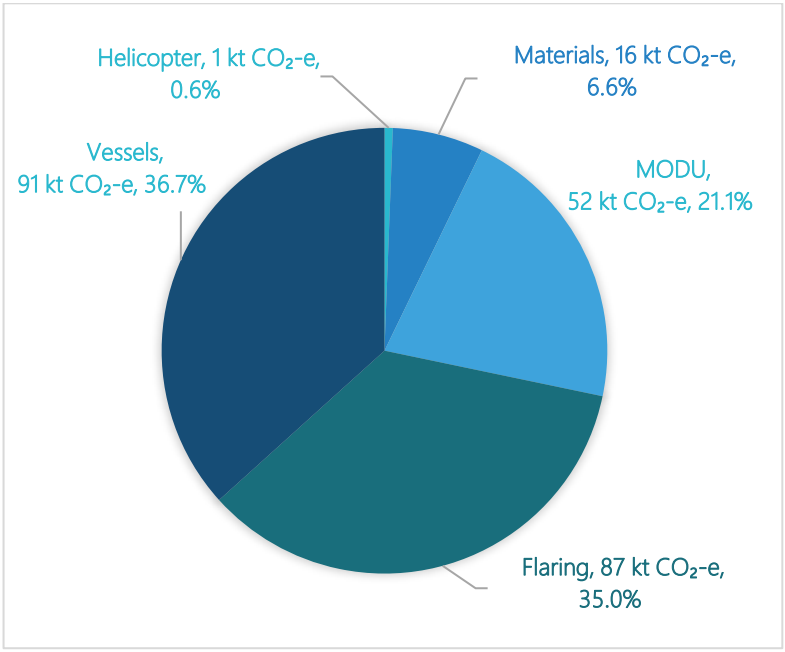


Figure 1: GHG emissions by source under worst-case conditions.

As shown in Table 3, assuming more realistic operational conditions, for example typical drilling duration and well testing on only two wells at maximum duration and rates the total expected direct and indirect GHG emissions are estimated to be approximately 106 kt CO_2-e over the project life, consisting of 29 kt CO_2-e (27.2%) and 77 kt CO_2-e (72.8%) of the direct and indirect emissions, respectively. As shown in Figure 2, emissions from vessels, flaring, MODU, helicopters, and materials represent 41.7%, 27.2%, 21.8%, 0.6% and 8.7% of the total emissions, respectively. The total GHG emissions estimate is approximately 0.005% of the Australian carbon budget, for the duration of the Activity (Department of Climate Change, Energy, the Environment and Water, 2022).

Table 3: Summary of expected estimated GHG emissions.

Emission source	Total GHG Emissions (t CO_2-e)	Percentage
Direct emissions:	28,900	27.2%
Flaring	28,900	27.2%
Indirect emissions:	77,200	53.8%
Vessels	44,200	41.7%
MODU	23,100	21.8%
Helicopters	700	0.6%
Materials	9,200	8.7%
TOTAL	106,100	100%

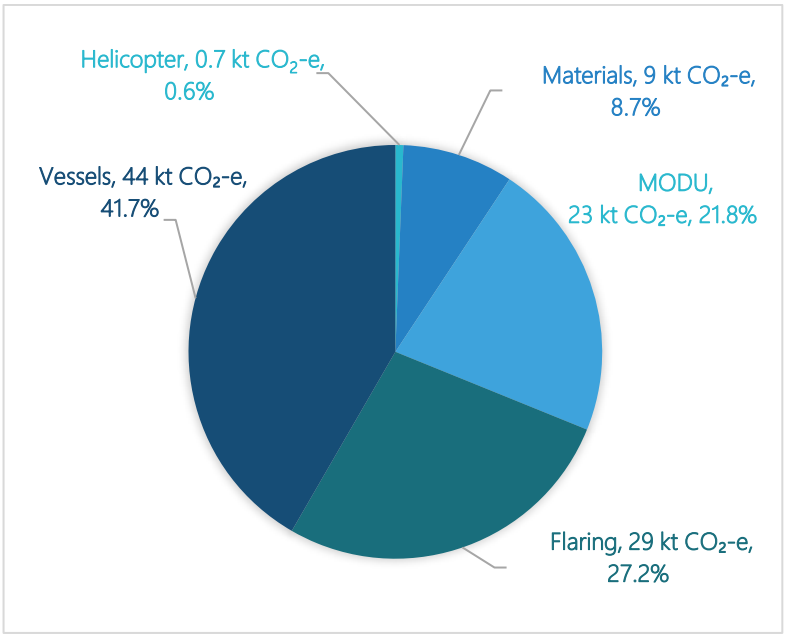


Figure 2: GHG emissions by source under realistic operational conditions.

REFERENCES

2023, Clean Energy Regulator, Australian Government, Measurement Determination, https://www.cleanenergyregulator.gov.au/NGER/Legislation/Measurement-Determination (Assessed on 23/1/2024)

2022, Department of Climate Change, Energy, the Environment and Water, Australian Government, Australia's emissions projections 2022, URL: https://www.dcceew.gov.au/climate-change/publications/australias-emissions-projections-2022#:~:text=The%20revised%202030%20commitment%20is%20both%20a%20single-year,budget%20for%20this%20period%20is%204%2C381%20Mt%20CO%E2%82%82-e (accessed on 23 January 2024).

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Input information used:

1. The well drilling and testing phase, including the plug and abandonment, will take 540 days in total, equivalent to maximum drilling days of 90 per well for 6 wells under worst-case operational conditions; and 240 days in total, equivalent to drilling days of 40 per well for 6 wells under realistic operational conditions.
2. Vessels moving to or residing outside the operational area are not considered part of the Activity. Vessel activities within the operational area is considered in this inventory.
3. Amount of vented gas is negligible and therefore excluded.
4. Helicopters will be the only aircraft used. There are on average two helicopters, each with a flight frequency of four times a week, flying from the Port of Warrnambool during well drilling and testing (including plug and abandonment phase). A one-way distance of 125 nm was used in calculation of helicopter emissions.
5. Maximum flare rate is 40 MMscfd for 120 hours/well during well drilling and testing. Under worst-case operational conditions, well testing applied on all 6 wells; and under realistic operational conditions, well testing applied on only 2 wells.
6. No flaring during plug and abandonment activities.
7. No fuel gas or purchased electricity is to be used.
8. Resupply operations will be done by one supply vessel, at a frequency of 2 port calls per week, with 1 day in port.

Assumptions used:

1. Vessels and MODU details used in calculation are shown in Table A1.
2. Major items required for well drilling assumed to be 1151~1601 bbl of cement per well, 2978~4851 bbl of WBDF per well, and 287~530 t of corrosion resistant alloys (CRA casing)/well.
3. Immaterial emissions from waste generated and employee commuting.

Table A1: Vessels and MODU input used in calculation.

VESSELS	QUANTITY	NO. OF TRANSIT DAYS (WITHIN OPERATIONAL AREA)	NO. OF WORKING DAYS UNDER WORST-CASE CONDITIONS	NO. OF WORKING DAYS UNDER REALISTIC CONDITIONS
Survey:				
Geotechnical vessel with ROV	1	3	63	63
Survey vessels	1	3	63	63
Well drilling and testing, including plug and abandonment:				
MODU	1	-	540	240
AHTS	2	3	540	240
PSV	1	3	540	240

(ROV: remotely operated vehicle; MODU: Mobile offshore drilling unit; AHTS: Anchor handling tug supply vessel; PSV: platform supply vessel)

APPENDIX K UXO CONTAMINATION REPORT

DESK STUDY FOR POTENTIAL UXO CONTAMINATION OTWAY EXPLORATION DRILLING

Risk Assessment and Mitigation Strategy



Report Ref: EES1447

Report Number: R-01-01

Desk Study for Potential UXO Contamination – Otway Exploration Drilling

Rev 01

22nd December 2022

rpsgroup.com

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
00	Report	Jack Stewart	Kara Stevenson	Victoria Phillips	08/12/2022
01	Comments	Jack Stewart	Kara Stevenson	Victoria Phillips	22/12/2022

Approval for issue

Victoria Phillips  22 December 2022

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ABBREVIATIONS

Abbreviation	Definition
AAA	Anti-Aircraft Artillery
ALARP	As Low As Reasonably Practicable
AOI	Area of Interest
CPT	Cone Penetration Test
EMC	German Type C moored contact mine
EOD	Explosive Ordnance Disposal
GIS	Geographical Information System
GU	German EMA mine
GY	German EMC/EMG mine
HE	High Explosive
HIRA	Hazard Identification and Risk Assessment
ID&C	Identification and Clearance
km	Kilometre
LAT	Lowest Astronomical Tide
m	Metres
mm	Millimetres
MoD	Ministry of Defence
OSPAR	Convention for the Protection of the Marine Environment of the North East Atlantic
PEXA	Practice and Exercise Areas
SAA	Small Arms Ammunition
WWI	World War One
UXO	Unexploded Ordnance
WWII	World War Two

EXECUTIVE SUMMARY

Background

RPS Explosives Engineering Services (RPS), part of RPS Energy Ltd, has been commissioned by **ConocoPhillips** to conduct a desktop study and risk assessment for potential Unexploded Ordnance (UXO) contamination at the **Otway Exploration Drilling** site. This document will provide an overview and easy access to future operations in respect of UXO risk handling for all potential upcoming drilling works.

The principal aim of RPS, for this report, is to provide **ConocoPhillips** with an appropriate and pragmatic assessment of the risks posed by UXO to the **Otway Exploration Drilling**, in order to identify a suitable methodology for the mitigation of any identified risks to an acceptable level in accordance with the 'ALARP' Principle.

The Area of Interest (AOI) is the **Otway Exploration Drilling** Permit Areas VIC/P79 and T/49P. These permit areas are located in the Otway Basin, between Warrnambool, Victoria and King Island. Permit Area VIC/P79 covers an area of approximately 2576 km^2, whilst Permit Area T/49P covers an area of approximately 4690 km^2.

UXO Risk Level

The Risk Levels identified in this study are based upon Probabilities of Encounter which have been determined for the provided Scope of Works (i.e. a limited number of wellsite drilling and seabed survey locations) which, due to the limited nature of interaction with the seabed are lower overall than those for the entirety of the Permit Areas. If the client were to conduct extensive further works, RPS must be consulted so that the risk posed by the additional interaction with the seabed can be assessed.

Based on the conclusions of the research and the risk assessment undertaken, RPS has found there to be a **Low** risk from encountering UXO on site.

RPS also take in to account the category of UXO both when assessing the probability of the item functioning and the consequence of such an event. This leads to the varying risk levels between munitions with the same installation methodology. The full risk matrices are presented in **Appendix 6**, providing an assessment of the risk associated with each activity.

The Permit Areas have been split into 4 zones (A-D), dependent on the risk presented and the planned installation activities.

Table 0.1 - Overall Risk Levels

Overall Risk Levels					
UXO		Risk Zones			
		A	B	C	D
Small Arms Ammunition		Neg	Neg	Neg	Neg
Land Service Ammunition		Neg	Neg	Neg	Neg
≤155 mm Projectiles		Neg	Neg	Neg	Neg
>155 mm Projectiles		Neg	Low	Low	Neg
HE Bombs	Allied Origin	Low	Low	Low	Low
	Axis Origin	Neg	Neg	Neg	Neg
Sea Mines	Allied Origin (Contact Mine)	Low	Low	Low	Low
	Allied Origin (Ground Mine)	Low	Low	Low	Low
	Axis Origin (Contact Mine)	Low	Low	Low	Low
	Axis Origin (Ground Mine)	Low	Low	Low	Low
Torpedoes		Low	Low	Low	Low
Depth Charges		Low	Low	Low	Low
Conventional Dumped Munitions		Low	Low	Low	Low
Dumped Chemical Munitions		Low	Low	Low	Low
Missiles/Rockets		Low	Low	Low	Low

Burial

In the softer sediments, it is possible for munitions to be covered by shifting sediments on the seabed and subsequently become buried. This is dependent on the mass, dimensions/shape of the item and the sediments upon which it came to rest as well as the currents affecting the area, however the maximum burial depth due to scour is approximately equal to the diameter of the munition. Burial is not possible in areas where bedrock is exposed.

Given the water depths throughout the site, it is considered likely that burial via natural processes (i.e. mobile seabed) will be the main form of burial rather than burial as a direct result of penetration upon impact.

RPS have determined that any UXO present on site is likely to be buried to scour depth (approximately equal to the diameter of the munition) plus the wave height of any mobile sediment bedforms present.

Recommendations

Based on the identified risk levels, it is recommended that appropriate mitigation is implemented to reduce the risk, prior to and/or during any works.

Due to the Low-Risk present at the wellsite locations, it would be recommended that Reactive Mitigation is used to manage the residual risk on site. It would be recommended that for all risk areas and activities that at a minimum all personnel are provided an **Explosives Safety and Awareness Briefing**.

The Moderate Risk associated with Snag on Vessel is also mitigated using Reactive Mitigation.

Table 0.2 - Risk Mitigation Strategy Overview

		Mitigation Requirement					
Risk Zone	**Activity / Risk Level***	**UXO Survey**	**Avoidance and / or ID&C**	**Explosives Safety Briefing**	**Explosives Engineer on Vessel****	**Explosives Engineer On-Call**	**Detection Requirement**
A	Low Risk Activities			✓		✓	N/A
B	Low Risk Activities			✓		✓	N/A
C	Low Risk Activities			✓		✓	N/A
D	Low Risk Activities			✓		✓	N/A

*** See Table 6.2 for risk level of each activity in each risk zone**

**** Dependent on Survey Results**

For further information about Reactive Mitigation requirements see Section 11

1 INTRODUCTION

1.1 Instruction

RPS Explosives Engineering Services (RPS), part of RPS Energy Ltd, has been commissioned by **ConocoPhillips** to conduct a desktop study and risk assessment for potential Unexploded Ordnance (UXO) contamination at the **Otway Exploration Drilling** site. This document will provide an overview and easy access to future operations in respect of UXO risk handling for all potential upcoming drilling works.

A site location map has been presented in **Appendix 1**.

1.2 Scope of Work

The following facets will be covered within this report:

- ***UXO Risk Analysis:*** Assessment of the specific military, former military and UXO related activities that have taken place within the vicinity of the project area. Additionally, to review any previous UXO clearance/mitigation operations that have already taken place. Then, to assess the risks which the identified UXO types present to the installation/survey activities.

- ***Recommendations:*** Based on the outcome of the assessment, appropriate mitigation measures that have been recommended to allow works to proceed safely and with minimal disruption. The recommendations will be designed to reduce the risk on site to As Low As Reasonably Practicable ('ALARP').

This report focuses on historical activities that occurred within the proposed Area of Interest and its immediate surroundings, with respect to the likelihood of encountering potential UXO and any associated risk with the proposed scheme of work.

1.3 Definitions

The term 'Site' refers to the area within the extent of the works associated with the **Otway Exploration Drilling**, illustrated in **Appendix 1.**

The term '**Area of Interest (AOI)**' refers to the area within the extent of the works associated with the site**.** This is defined by the client-provided ArcGIS shapefile "COP_Permits_Otway.shp".

The term "**Area of Interest Buffer"** is a 5 km buffer surrounding the AOI. Due to the degree of inaccuracy when plotting historical munitions this buffer is used to aid in determining the probability of encountering UXO within the site.

The term "**Wider Area of Interest**" is an undefined area outside of the AOI in which some of the information detailed in this report may relate to, to outline the overall military history of the area

Selected terminology referred to throughout this report is documented in **Appendix 2.**

1.4 Aims

The principal aim of RPS, for this report, is to provide **ConocoPhillips** with an appropriate and pragmatic assessment of the risks posed by UXO to the **Otway Exploration Drilling**, in order to identify a suitable methodology for the mitigation of any identified risks to an acceptable level in accordance with the 'ALARP' Principle.

The 'ALARP' Principle is clearly defined in **Appendix 3.**

1.5 Reporting Conditions

This study consists of a desk-based collation and review of available documentation and records relating to the possibility of UXO being present within the site. Certain information obtained for the purposes of this study

is either classified, restricted material or considered to be confidential to RPS. Therefore, summaries of such information have been provided.

It must be emphasised that this desk study is only able to identify the potential for UXO to be present. Further geophysical surveys and target investigation may be necessary to provide confirmation of the presence of UXO and the actual risks involved.

Note: Our appraisal relies on the accuracy of the information contained within the documents consulted which have been deemed suitable following review. RPS will however in no circumstances be held responsible for the accuracy of such information or data supplied.

1.6 Sources of Information

The main sources of information consulted by RPS for this report were obtained from within the public domain. Additional sources reviewed are below:

- RPS Archives;
- Military Archives;
- National Archives;
- Historic Maps, Aerial Photographs and Records; and
- Internet Research.

RPS has also consulted a series of research documents to compile this report. These are listed in **Section 1.6.1** below.

1.6.1 Specific Documents

RPS has consulted a number of research documents and existing reports in researching this report. These are listed below:

[1] Menzel, P., Wranik, H. & Paschen, M. (2017). Laboratory experiments and numerical simulations on the wave and flow-induced migration of munition from WW1 and WW2 as a risk assessment for offshore construction. Lehrstuhl für Meerestechnik.

[2] ConocoPhillips. (2022). Otway Exploration Drilling Program Environment Plan. Section 2: Description of Activity. Rev 00b

1.7 Additional Deliverables

In addition to this report, RPS will supply the client with GIS deliverables representing UXO Features and Risk Zones. These will be supplied in Layer Package format.

Note: Due to licencing agreements with the data provider, RPS are not able to supply wreck data in spatial format. As such, relevant wreck data is tabulated in Section 3.4 and shown visually in Appendix 5.

2 SITE DETAILS AND DESCRIPTION

2.1 Area of Interest

The Area of Interest (AOI) is the **Otway Exploration Drilling** Permit Areas VIC/P79 and T/49P. These permit areas are located in the Otway Basin, between Warrnambool, Victoria and King Island. Permit Area VIC/P79 covers an area of approximately 2576 km^2, whilst Permit Area T/49P covers an area of approximately 4690 km^2.

A site location map has been presented at **Appendix 1**.

2.2 Proposed Scheme of Work

The client has indicated that the following activities are to take place within the AOI:

- Well Drilling (up to 6 locations);
- MODU Anchoring;
- Peel Grab Operations;
- Borehole/Vibrocore;
- CPT; and
- Grab Sampling.

The client has indicated that up to 12 geotechnical investigation locations will be utilised per potential drilling location, with sampling equipment deployed over the side the vessel and placed on the seabed. The indicative total footprint is 0.072 m^2 per potential drilling location.

2.3 Background Geology

The site is located within the Otway Basin, a large approximately 500 km long NW-SE basin located to the south of Warrnambool and north-west of Tasmania. The Otway Basin is Jurassic – Late Cretaceous in age and is part of a series of basins that follow the southern coast of Australia. The basin was formed through multi-stage rift-sag and inversion phases. The latest sediments deposited in the Jurassic - Early Cretaceous can reach up to 8 km thick in parts of the basin.

3 UNEXPLODED ORDNANCE RISK ANALYSIS

3.1 Naval Warfare

Due to its distance from the major theatres of war in the 20th century, the waters off the southern coast of Australia have been spared much of the UXO contamination from fighting evident in other parts of the world. Nevertheless, low level naval activity did take place in the wider Area of Interest (AOI), and the following sections summarise the known activities that may have resulted in UXO presence within and close to the AOI.

3.1.1 World War One (WWI) (1914-1918)

There is no evidence to suggest any significant military activity took place within or around the AOIs during this conflict that may have resulted in the presence of UXO. Away from the European and Mediterranean theatres, the Australian Navy operated largely to the north of Australia, in the Indian Ocean and around the Netherlands East Indies (Indonesia) with a minimal presence in the wider area of the AOI.

3.1.2 World War Two (WWII) (1939-1945)

Disguised German raiding vessels operated briefly in waters off the south Australian coast in 1940, laying a number of mines (see **Section 3.3.2**). Following Japan's entry into the war in December 1941, Japanese submarines operated off the southeast coast of Australia, with some attacks recorded on Sydney and on shipping at the eastern edge of the Bass Strait. For example, Japanese submarine *I-27* sank the merchantman *Iron Crown* approximately 40 miles south/southwest of Gabo Island, Victoria on 03 June 1942[1]. No information has been found, however, to suggest that Japanese submarines operated within the AOI.

Japanese submarine *I-25* circumnavigated Tasmania in February 1942 and loitered off the northern tip of King Island for several days before launching a reconnaissance aircraft on a flight over the Melbourne area. No combat occurred and although the submarine likely transited a portion of both AOI's no UXO risk is known to exist as a result[2].

German surface raiders operated intermittently off Australia in 1942 and 1943 but none are reported to have operated in the vicinity of the AOI.

3.2 Mine Laying Campaigns

3.2.1 World War One (WWI) (1914-1918)

The German raiding vessel *Wolf* laid mines off New Zealand in June 1917, before moving into Australian waters and laying a small minefield of 25 mines approximately 10 km off Gabo lighthouse, Victoria, on 3rd July 1917[3], claiming several vessels as victims. There is no information available, however, to indicate that mines were laid in other areas and given that Gabo is almost 600 km east of the AOIs, the UXO risk from mines of this period is considered to be extremely limited.

3.2.2 World War II (WWII) (1939-1945)

Two German surface raiders are known to have laid mines in the wider AOI in 1940. The vessel *Pinguin* entered the Indian Ocean from the South Atlantic in August 1940 and arrived off Western Australia in October. On 7 October *Pinguin* captured the Norwegian tanker *Storstad* which was sailing from Borneo to Melbourne. A German prize crew took over *Storstad* (re-named as *Passat*) and mines were transferred to her from *Pinguin*. The two ships then sailed to the east. *Pinguin* laid EMC (*Elektrische Minen* Type C moored contact mines) mines off the New South Wales coast between Sydney and Newcastle on the night of 28th

[1] Hiromi, T, 2022, *The Japanese Navy's operations against Australia in the Second World War; a commentary on Japanese sources*. Australian War Memorial

[2] https://www.ozatwar.com/japrecce/recce02.htm

[3] Journal of the Australian Naval Institute, May 1987, *The Seamine as a 'First Strike' weapon against Australia – Then and Now.* Vol. 13, No.2, p25

October, with both vessels then departing for Tasmanian waters. *Pinguin* laid two minefields off Hobart on 31st October and 1st November, and over the period 29–31 October *Storstad* laid mines in Banks Strait off the north-east corner of Tasmania and off Wilson's Promontory and Cape Otway on the Victorian coast. *Pinguin* also laid further mines in Spencer Gulf off Adelaide in South Australia in the first week of November. The two ships then sailed west for the Indian Ocean, having avoided all detection. Mines laid by *Passat* sank the cargo ship *Cambridge* off Wilsons Promontory and the American *City of Rayville* off Cape Otway on 8 and 9 November, and the mines laid off Sydney by *Pinguin* sank the coastal steamer *Nimbin*. The British steamer *Hertford* was also damaged after striking a mine at the entrance to Spencer Gulf.

Information relating to the mines laid by *Pinguin* and *Passat* are held by German archives that have been reviewed by RPS. The closest mine lines to the AOI are recorded as being 24 km east of the VIC/P79 AOI and 22.8 km north of T/49P AOI. This distance, combined with the limited number of mines laid, indicates that the potential for the presence of German EMC mines within both AOI is very low but cannot be completely excluded.

There is no information that suggests Japanese or allied mines were deployed operationally in either of the AOIs.

Minesweeping operations began in early January 1941, after the sinking of the *Cambridge*. The Australian 20th Minesweeping Flotilla searched the waters around Tasmania and the Bass Strait regularly for 14 months after the initial minelaying operation. The number of mines swept is inconsistent, with one source stating that 19 German mines[4], were recovered, and another that 20 were found[5]; either way, even when taking successful detonations and reports of mines swept ashore into account, a very low number of mines are likely to have been dealt with compared to the 230 EMC mines reportedly laid[6]. Statistics for north European waters, which experienced a much higher density of mining and much more intense minesweeping, indicate that 25% of moored contact mines laid remain un-swept and potentially present today[7].

The majority of the mines laid by the Germans in the Bass Strait area were reported to have become 'floaters' within four months of deployment[8] *i.e.* they broke away from their mooring mechanisms and floated with the currents, which greatly complicated sweeping operations. The Australian Navy believed they unknowingly cut and swept the last mine off Cape Otway on 22 July 1942[9] but there is no proof that all mines were accounted for, and there is a possibility, albeit remote, that unexploded German EMC mines may have drifted into the AOIs.

[4] https://www.navy.gov.au/hmas-orara

[5] Journal of the Australian Naval Institute, May 1987, *The Seamine as a 'First Strike' weapon against Australia – Then and Now.* Vol. 13, No.2, p29

[6] German Bundesarchiv, ZA/5/44/22 *Summary of Enemy minelaying 1939-1945*

[7] Swedish Navy Mine Warfare Centre, Lt Cdr G Moller *pers. Con.*

[8] Journal of the Australian Naval Institute, May 1987, *The Seamine as a 'First Strike' weapon against Australia – Then and Now.* Vol. 13, No.2, p28

[9] *Ibid.* p29

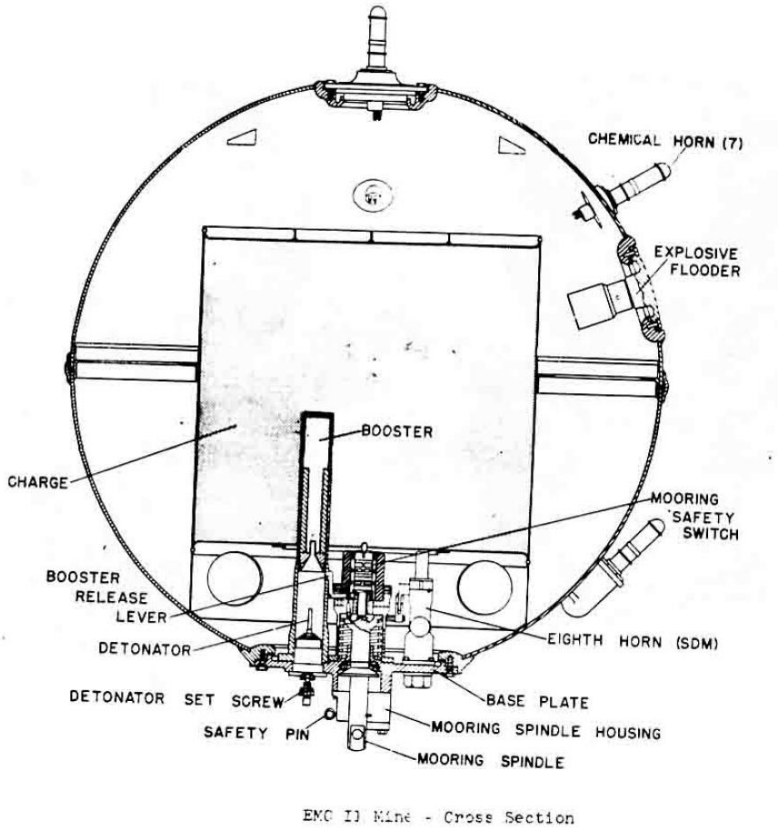


Figure 3.1 - Diagram showing a cross section of a German EMC mine of the type laid off the south coast of Australia in 1940. US Navy OP 1673A



Figure 3.2. German EMC mine swept off Wilson's Promontory, Victoria, approximately 240 km east of the AOIs. One of two swept, both were sunk by rifle fire and considered destroyed (Public Domain)[10]

[10] https://www.awm.gov.au/collection/C1027269

3.3 Aerial Conflict and Bombing Campaigns

3.3.1 World War One (WWI) (1914-1918)

No information is available to suggest that aircraft operated within the AOI or would have created a UXO risk.

3.3.2 World War Two (WWII) (1939-1945)

There is no evidence to suggest that aerial conflict occurred within the AOI during this period. However, Australian aircraft (Hudson and Anson types being the main maritime patrol aircraft) routinely flew off the south coast of Australia and over the Bass Strait as part of anti-submarine patrolling and convoy escort. No enemy vessels are certainly known to have been attacked, and none are known to have been destroyed, aircraft did occasionally jettison ordnance when in difficulty or even disappeared over the ocean as a result of poor flying conditions or mechanical failure; aircraft lost in this way are considered to be the most likely source of UXO as a result of air operations from WWII (see Section 3.4.2).

3.4 Shipwrecks and Downed Aircraft

No information has been found to indicate the presence of a shipwreck or downed aircraft within either AOI. A single wreck, the *W Gordon*, a sailing vessel that disappeared off Cape Otway in 1876 (i.d. 6784), is charted within the buffer of the T/49P AOI but has no known UXO association. Even the site of the wreck is speculative as only fragments of the vessel washed ashore at Cape Otway.

It is possible that vessels and aircraft that disappeared without trace might be located within the AOIs; whilst any UXO potential is likely to be limited, all previously unknown wrecks should be treated with caution until proved safe.

3.5 Anti-Aircraft Artillery / Coastal Batteries

3.5.1 World War One (WWI) (1914-1918)

There is no information that suggests a UXO risk exists from any land-based artillery system of the period.

3.5.2 World War Two (WWII) (1939-1945)

There is no information that suggests a UXO risk exists from any land-based artillery system of the period.

Naval vessels were routinely equipped with dedicated anti-aircraft guns from the late 1920s onward but the probability of projectiles that might represent a UXO risk being present in the AOI is considered negligible.

3.6 Military Practice Areas

A rectangular area west of King Island, Tasmania, was used in 1954 as an Air-to-Air firing range. The UXO risk from primary Air-to-Air Weapons systems in use at the time (20 mm and 30 mm cannon) is unlikely to impact sub-surface operations but individual projectiles might represent a hazard if brought aboard a vessel. The area does not appear to have been used since 1954.

No other military Practice and Exercise Areas (PEXA) are located in the vicinity of the AOI.

3.7 Offshore UXO Dumpsites

Three official maritime munitions dumping areas are recorded between 21 km and 50 km west of the T/49P AOI, these same areas being located between 37 km and 62 km south of the VIC/P79 AOI. One of these dumping areas was used for the disposal of 1,634 tons of chemical munitions but all three sites are located beyond the edge of the continental shelf, in deeper water and have no direct impact on either AOI.

Despite the designation of official dumping areas, there is good evidence to indicate that munitions dumping took place away from these sites (a very common occurrence by all nations in the post WWII period); the War Diary of HMAS *Tarakan* (also known as *LST 3017*) indicates it dumped 650 tons of obsolete ammunition for the RAAF (speculatively aircraft bombs) on 09 July 1949 and 11 July 1949. Two separate dumping areas appear to have been used, firstly one located at an unspecified location west of King Island. Poor weather

interrupted operations and after dumping all the ammunition stored on the upper deck, the vessel went to a sheltered anchorage in Elephant Bay (now called Elephant Seal Bay) on the east of King Island. Whilst there, the remaining 250 tons of ammunition stored in the tank hold was brought to the deck, and then the ship travelled to an apparently separate dumping area south west of King Island for dumping to be completed on 11 July 1949[11]. As no co-ordinates were given for the dumping area, the actual location is unclear.

Dumping was often very poorly recorded. For example, HMAS *Tarakan* dumped 350 tons of ammunition loaded at Bell Bay Tasmania whilst enroute to Hobart on 30 April 1948; there is no record of the ammunition (obsolete 18-lbr and 4.5-inch howitzer projectiles) being dumped in a specifically designated area and a trail of projectiles is likely to litter the seabed along part of the course the vessel took. A further 445 tons of ammunition was dumped enroute from Bell Bay to Hobart on 21/22 May 1948; the original plan for dumping obsolete Tasmanian ammunition called for it to be dumped in 300 fathoms (548 m) approximately 80 km from the coast[12].

Whilst not near either AOI, the HMAS *Tarakan* dumping episodes are illustrative of the unofficial dumping that frequently took place and may well have been carried out by vessels traversing the AOIs. It is therefore possible that unrecorded dumping took place following the end of WWII and that UXO might be found within the AOIs.

A possible civilian dumpsite (the materials may be related to mining rather than military use) has been identified approximately 3.79 km southwest of the VIC/P79 AOI. The following table summarises the materials known to have been dumped at that site and is included for completeness.

Table 3.1 - Summary of known materials dumped within 3.79 km of VIC/P79[13]

Date	Item	Quantity	Notes
23/07/1970	Cyanide	90 gallons	18 x 5 gallon drums
23/07/1970	Cyanide	96 gallons	4 x 24 gallon drums
23/07/1970	Explosives	144 boxes	No further information – type unspecified
23/07/1970	Detonators	2331 cases	No further information – type unspecified
23/07/1970	Cordtex	168 cases	55lb in each case, explosive detonating cord containing PETN explosive (9,240 lb total). PETN is insoluble in water and may be encased in plastic coating so may still represent a risk.

3.8 OSPAR Munition Encounters

The AOI is outside the Oslo and Paris Agreement reporting area and no data is therefore available.

3.9 Post-War Clearance Operations

The Australian 20th Minesweeping Flotilla may have conducted post-WWII sweeping operations in Newcastle, Bass Strait, Banks Strait, Cape Otway, Hobart and South Australia minefields after the end of the war[14]. No information has been found to indicate they were any more successful than during WWII and no information has been found on the number

3.10 Current and Emerging Threats

The Bass Strait is located well away from current centres of global tension and as a result is likely to be less impacted by the development and use of new maritime technology such as drones and submarines and covert efforts to interfere with sub-surface marine infrastructure. Although not considered a significant risk, it should be borne in mind.

[11] AWM78 Class 337/2 – HMAS Tarakan Report of Proceedings May-December 1949

[12] National Archives of Australia P617, 406/1/206

[13] Government of Australia, 2003, *Sea Dumping in Australia: Historical and Contemporary Aspects*

[14] Australian War Memorial 124/4/394 *Minesweeping operations by 20th Minesweeping Flotilla in Newcastle, Bass Strait, Banks Strait, Cape Otway, Hobart and South Australia minefields*

4 BASELINE THREAT ASSESSMENT

The results of the historical review have been used to conduct a threat assessment to determine the baseline pre-exploration and pre-mitigation risk posed by UXO contamination on site. The assessment outlines the types of UXO that have been identified during the research and assesses the probability of encountering them on site (without considering that any construction activities have already taken place).

4.1 Probability Assessment

Each of the types of UXO that have been identified through the research have been assessed and given a probability of encounter Grade based on the following Level and Rationale.

Table 4.1 - Probability Levels

Probability Assessment Levels		
Grade	**Probability Level**	**Rationale**
A	Highly Probable	Clear evidence that this type of munition would be encountered.
B	Probable	Significant evidence to indicate that this type of munition would be encountered.
C	Possible	Evidence suggests that this type of munition could be encountered.
D	Remote	Evidence suggest that these munitions have been found in the Wider Area of Interest area but not specifically within the AOI.
E	Improbable	Not considered likely to encounter this type of munition within the AOI, but not possible to discount completely.
F	Highly Improbable	No evidence that this type of munition would be encountered within the AOI or the immediate vicinity.

4.1.1 Risk Zoning

The probability assessment results will vary across the site due to the geographical extent of the potential UXO sources identified in the research presented above. This results in a different risk profile across the site based upon these affected areas. RPS divide the site into Risk Zones based upon the probability assessment results (in addition to planned activities and water depths) in order to ensure that a pragmatic approach is taken to the risk of each ordnance type across the site. The results of the probability assessment are shown in **Table 4.2**. RPS Risk Zoning is shown graphically at **Appendix 8**. The sources of UXO which influence the risk zoning and probability assessment are shown graphically in **Appendix 4** and detailed in **Section 6.1.2**.

4.1.2 Probability Assessment Results

The research from the above sections has been used to determine the Probability of Encounter for each ordnance variety. The results are shown in the table below:

Table 4.2 - Shows the probability of encounter for each assessed ordnance variety, based on the research provided in the prior sections

Probability of Encounter					
UXO		**Risk Zones**			
		A	**B**	**C**	**D**
Small Arms Ammunition		E	E	E	E
Land Service Ammunition		E	E	E	E
≤155 mm Projectiles		E	D	D	E
>155 mm Projectiles		E	E	E	E
HE Bombs	Allied Origin	E	D	D	E
	Axis Origin	F	F	F	F
	Allied Origin (Contact Mine)	E	E	E	E

Probability of Encounter					
UXO		Risk Zones			
		A	B	C	D
Sea Mines	Allied Origin (Ground Mine)	E	E	E	E
	Axis Origin (Contact Mine)	D	D	D	D
	Axis Origin (Ground Mine)	E	E	E	E
Torpedoes		E	E	E	E
Depth Charges		D	D	D	D
Conventional Dumped Munitions		C	C	C	C
Dumped Chemical Munitions		D	D	D	D
Missiles/Rockets		E	E	E	E

Due to the extremely limited interaction with the seabed the proposed scheme of works will have (with a limited number of wellsite areas across both permit areas) and indicative total footprint of geotechnical activities at each location is 0.072 m^2, RPS have revised the probability of encountering each munition at each individual wellsite.

Note: The following Probabilities of Encounter are applicable only at the limited number of wellsite and seabed survey locations. Works further to those being conducted at the limited number of wellsite and seabed survey locations will be subject to the Probabilities of Encounter in Table 4.2 and RPS would have to be informed prior to additional works being undertaken.

Table 4.3 - Probability of Encountering each munition type whilst undertaking the described works. Due to the limited interaction with the seabed the proposed activities will have, the Probability of Encounter is reduced in comparison to the Permit Area as a whole

Probability of Encounter					
UXO		Risk Zones			
		A	B	C	D
Small Arms Ammunition		F	F	F	F
Land Service Ammunition		F	F	F	F
≤155 mm Projectiles		F	E	E	F
>155 mm Projectiles		F	F	F	F
HE Bombs	Allied Origin	F	E	E	F
	Axis Origin	F	F	F	F
Sea Mines	Allied Origin (Contact Mine)	F	F	F	F
	Allied Origin (Ground Mine)	F	F	F	F
	Axis Origin (Contact Mine)	E	E	E	E
	Axis Origin (Ground Mine)	F	F	F	F
Torpedoes		F	F	F	F
Depth Charges		E	E	E	E
Conventional Dumped Munitions		D	D	D	D
Dumped Chemical Munitions		E	E	E	E
Missiles/Rockets		F	F	F	F

5 RPS UXO ANALYSIS & ASSESSMENT

5.1 General

A Risk Assessment is a formalised process for assessing the level of risk associated with a particular situation or action. It involves identifying the hazards and the potential receptor that could be affected by the hazard. The degree of risk is associated with the potential for a pathway to be present, linking the hazard to the receptor. This relationship is usually summarised as the Source – Pathway – Receptor.

The assessment has utilised information provided in **Section 3** and included the proposed intrusive activities to propose a more specific and detailed mitigation methodology.

5.2 Sources / Hazards

Based on the information collated, RPS considers that the following types of ordnance have the potential to have been utilised on/within the vicinity of the proposed site:

- Projectiles
- Allied HE Bombs
- Depth Charges
- Conventional Dumped Munitions
- Dumped Chemical Munitions

Importantly, whilst the technology in some of these munitions has altered significantly over the years, the composition of the explosives within them generally has not changed. It is the explosives within the devices that pose the risk; therefore, historic munitions can pose as significant of a risk today as more modern devices, especially as bulk explosives may not have degraded since the time the device was assembled.

It should be considered that WWI and WWII munitions will be found on or below the sea floor that are still hermetically sealed; with no water ingress. Other devices may however be cracked, with the outer casings of some mines for example, worn away over time. Therefore, it is not possible to state with any certainty that historic munitions pose less of a risk based on their degradation over time.

5.3 Pathway

The pathway is described as the route by which the hazard reaches the site personnel. Given the nature of the proposed works the only pathways would be during:

- Well Drilling;
- Snag on Vessel;
- Anchoring;
- Peel Grab Operations;
- Borehole/Vibrocore;
- CPT; and
- Grab Sampling.

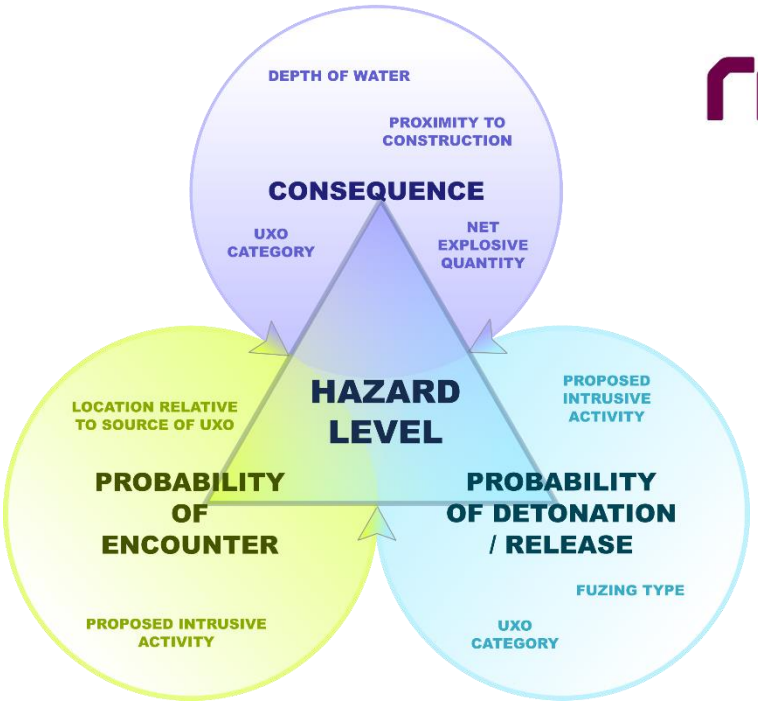
5.4 Receptors

Sensitive receptors applicable to this proposed route would be:

- People (Workers / Engineers and General Public);
- High Value Equipment;
- Infrastructure;
- Vessels (including public); and
- Environment.

5.5 Risk Evaluation

The following sections contain the Risk Evaluation for the proposed route, prior to the implementation of any risk mitigation measures. For the risk to be properly defined, several factors must be taken into account, including the consequences of initiation, the probability of encountering UXO on the proposed route and the probability of detonating munitions during intrusive activities. The technique used to evaluate level of risk is outlined in the following diagram:



Risk level = Probability of Encounter x Probability of Detonation or Release x Consequence

Figure 5.1 - Hazard Level Considerations

If a significant risk is identified, an appropriate risk mitigation strategy is necessary for the intended geotechnical investigation and installation works. A semi quantitative assessment is completed below to identify the risk.

5.6 Probability and Consequence Assessment

For the purpose, of this assessment RPS has examined the probability of encounter and detonation and the potential subsequent consequence for the specific proposed works to be undertaken during the project. Only the main categories of munitions have been included to provide a range of assessment data and it should be noted that other munition types may remain in the area.

The assessment is presented at **Appendix 6** and the process detailed below.

5.6.1 Probability of Encounter Assessment

An estimate of the likelihood of a UXO risk being present within each route segment is made to assess the probability of encounter, which are ranked A – F, as below.

- A – Highly Probable
- B – Probable
- C – Possible
- D – Remote
- E – Improbable
- F – Highly Improbable

5.6.2 Probability of Detonation Assessment

The probability of encounter is combined with the probability of a certain munition type detonating. The probability of each engineering activity causing each munition type to detonate is assessed and ranked A – F:

- A – Highly Probable
- B – Probable
- C – Possible
- D – Remote
- E – Improbable
- F – Highly Improbable

This is based on the estimated disturbance caused by the installation activity and the likelihood for this to cause a detonation of specific munitions (*which is based on the items initiation systems*).

5.6.3 Consequence Assessment

Finally, the consequence level for each activity and munition type is obtained from the table presented in **Appendix 7**, which provides a consequence rating from 1 to 5, depending upon the severity. The detonation consequence assessment assigns a site-specific consequence level to any potential UXO that may be encountered at the proposed route. This is achieved by combining the UXO impact ranking and the depth of water across the proposed route. A rating system for assigning consequence levels has been derived based on the expected effects of a detonation event during each of the engineering activities, both on the seabed and on the vessel.

5.6.4 Risk level

The result for each activity, munition type and segment are then presented as:

P_E x P_D x C; where:

- **P_E** is the Probability of Encounter level, (*A – F*)
- **P_D** is the Probability of a Detonation level (*A – F*)
- **C** is the Consequence of a Detonation level (*1 – 5*)

The probability of encounter, probability of detonation/release and consequence of a detonation/release levels are then multiplied to give a risk level for each munition type, segment and engineering activity.

This was determined by assigning the values in the following table to the above results, which were then multiplied to provide a final risk level ranging between Negligible and High.

Table 5.1 - Probability & Consequence Levels

Prob. of Encounter (*1*)		Prob. of Detonation (*2*)		Consequence (*3*)	
A	Highly Probable (*1 in 1*)	**A**	Highly Probable (*1 in 1*)	**1**	Catastrophic (*1.00*)
B	Probable (*1 in 10*)	**B**	Probable (*1 in 10*)	**2**	Major (*0.1*)
C	Possible (*1 in 100*)	**C**	Possible (*1 in 100*)	**3**	Moderate (*0.01*)
D	Remote (*1 in 1,000*)	**D**	Remote (*1 in 1,000*)	**4**	Minor (*0.001*)
E	Improbable (*1 in 10,000*)	**E**	Improbable (*1 in 10,000*)	**5**	Insignificant (*0.0001*)
F	Highly Improbable (*1 in 100,000*)	**F**	Highly Improbable (*1 in 100,000*)		

Table 5.2 - Example Risk Score and Associated Risk Rating (Full details in Appendix 7)

		Probability of Encounter, P_E					
C = 1		**A**	**B**	**C**	**D**	**E**	**F**
Probability of Detonation, P_D	**A**	AA1	BA1	CA1	DA1	EA1	FA1
	B	AB1	BB1	CB1	DB1	EB1	FB1
	C	AC1	BC1	CC1	DC1	EC1	FC1
	D	AD1	BD1	CD1	DD1	ED1	FD1
	E	AE1	BE1	CE1	DE1	EE1	FE1
	F	AF1	BF1	CF1	DF1	EF1	FF1

Table 5.3 - Definition of Risk Levels

Risk Level	Definition
High	Indisputable evidence that there is a risk from this type of UXO in the area. Proactive UXO Mitigation is required.
Moderate	Evidence suggests that there is a risk from this type of UXO in the area. Proactive UXO Mitigation is required.
Low	Some evidence suggests that there is a risk from this type of UXO in the area or wider region. Reactive mitigation may be required.
Negligible	No evidence suggesting that there is a risk from this type of UXO in the area or wider region. No further mitigation is required.

The full consequence level matrix can be found in **Appendix 7.**

6 UXO RISK LEVELS

6.1 UXO Risk

Note: The Risk Levels identified in this study are based upon Probabilities of Encounter which have been determined for the provided Scope of Works (i.e. a limited number of wellsite drilling and seabed survey locations) which, due to the limited nature of interaction with the seabed are lower overall than those for the entirety of the Permit Areas. If the client were to conduct extensive further works, RPS must be consulted so that the risk posed by the additional interaction with the seabed can be assessed.

Based on the conclusions of the research and the risk assessment undertaken, RPS has found there to be a **Low** risk from encountering UXO on site.

As per **Figure 5.1** RPS also take in to account the category of UXO both when assessing the probability of the item functioning and the consequence of such an event. This leads to the varying risk levels between munitions with the same installation methodology. The full risk matrices are presented in **Appendix 6**, providing an assessment of the risk associated with each activity.

The Permit Areas have been split into 4 zones (A-D), dependent on the risk presented and the planned installation activities. **Table 6.1** shows the maximum risk for each zone. Descriptions of the zones are given in **Section 6.1.2**. RPS Risk Zoning is shown graphically in **Appendix 8**.

6.1.1 Risk Levels

Table 6.1 - Overall Risk Level

Overall Risk Levels					
UXO		Risk Zones			
		A	B	C	D
Small Arms Ammunition		Neg	Neg	Neg	Neg
Land Service Ammunition		Neg	Neg	Neg	Neg
≤155 mm Projectiles		Neg	Neg	Neg	Neg
>155 mm Projectiles		Neg	Low	Low	Neg
HE Bombs	Allied Origin	Low	Low	Low	Low
	Axis Origin	Neg	Neg	Neg	Neg
Sea Mines	Allied Origin (Contact Mine)	Low	Low	Low	Low
	Allied Origin (Ground Mine)	Low	Low	Low	Low
	Axis Origin (Contact Mine)	Low	Low	Low	Low
	Axis Origin (Ground Mine)	Low	Low	Low	Low
Torpedoes		Low	Low	Low	Low
Depth Charges		Low	Low	Low	Low
Conventional Dumped Munitions		Low	Low	Low	Low
Dumped Chemical Munitions		Low	Low	Low	Low
Missiles/Rockets		Low	Low	Low	Low

6.1.2 Risk Zones

6.1.2.1 Zone A – Low Risk

Permit Area VIC/P79 outside King Island air-to-air firing area

This zone represents the area of the VIC/P79 Permit Area which lies outside the King Island air-to-air firing area. In this zone there is the potential to encounter dumped conventional and chemical munitions. There are a number of dumpsites in the vicinity of this zone, including conventional munitions dumpsites, chemical munitions dumpsites and an assumed mining waste dumpsite (which includes explosives, in the form of detonators, PETN Detonating Cord and bulk explosives and chemicals including cyanide). Although this zone

lies outside of the known dumpsites, it is expected that munitions may have been disposed of *en route* from ports to official dumpsites, and so it is anticipated that they could be encountered in this area.

6.1.2.2 Zone B – Low Risk

Permit Area VIC/P79 inside King Island air-to-air firing area

This zone represents the area of the VIC/P79 Permit Area which lies inside the King Island air-to-air firing area. In this zone there is the potential to encounter small calibre (20 mm and 30 mm) projectiles associated with air-to-air gunnery practice. Further to this, there is the potential to encounter dumped conventional and chemical munitions. There are a number of dumpsites in the vicinity of this zone, including conventional munitions dumpsites, chemical munitions dumpsites and an assumed mining waste dumpsite (which includes explosives, in the form of detonators, PETN Detonating Cord and bulk explosives and chemicals including cyanide). Although this zone lies outside of the known dumpsites, it is expected that munitions may have been disposed of *en route* from ports to official dumpsites, and so it is anticipated that they could be encountered in this area.

6.1.2.3 Zone C – Low Risk

Permit Area T/49P inside King Island air-to-air firing area

This zone represents the area of the T/49P Permit Area which lies inside the King Island air-to-air firing area. In this zone there is the potential to encounter small calibre (20 mm and 30 mm) projectiles associated with air-to-air gunnery practice. Further to this, there is the potential to encounter dumped conventional and chemical munitions. There are a number of dumpsites in the vicinity of this zone, including conventional munitions dumpsites and chemical munitions dumpsites. Although this zone lies outside of the known dumpsites, it is expected that munitions may have been disposed of *en route* from ports to official dumpsites, and so it is anticipated that they could be encountered in this area.

6.1.2.4 Zone D – Low Risk

Permit Area T/49P outside King Island air-to-air firing area

This zone represents the area of the T/49P Permit Area which lies outside the King Island air-to-air firing area. In this zone there is the potential to encounter dumped conventional and chemical munitions. There are a number of dumpsites in the vicinity of this zone, including conventional munitions dumpsites and chemical munitions dumpsites. Although this zone lies outside of the known dumpsites, it is expected that munitions may have been disposed of *en route* from ports to official dumpsites, and so it is anticipated that they could be encountered in this area.

6.1.3 Risk Level by Activity

The risk level in each zone varies depending on the exploration activities being undertaken as well as the types of ordnance expected in each zone. As outlined in **Section 5.6**, the risk level for each ordnance type and each activity is determined using the Probability of Encounter, Probability of Detonation and Consequence of Detonation.

The Probability of Detonation varies between exploration activities as each activity interacts with the seabed in a different way, either increasing/reducing the chance of the equipment/asset interacting with potential UXO or increasing/decreasing the amount of energy transferred from the equipment/asset to potential UXO, which may result in a detonation. For example, a plough (as it is intrusive and higher energy) has an increased Probability of Detonation compared to a non-intrusive activity, such as Surface Cable Lay. The second factor which changes between activities is the Consequence of Detonation. This is because the potential consequences of striking UXO with a plough on the seabed towed behind the boat is significantly lower than if UXO were snagged on equipment and brought to deck (Snag on Vessel).

The Risk Level of each activity within each Risk Zone are shown in **Table 6.2**.

Table 6.2 - Risk Level by Activity and Risk Zone

Risk Level by Activity				
Activity / Pathway	Risk Zone			
	A	B	C	D
Well Drilling	Low	Low	Low	Low
Snag on Vessel	Mod	Mod	Mod	Mod
Anchoring	Low	Low	Low	Low
Peel Grab Operations	Low	Low	Low	Low
Borehole / Vibrocore	Low	Low	Low	Low
CPT	Low	Low	Low	Low
Grab Sampling	Low	Low	Low	Low

7 DATA REVIEW

RPS has not been supplied with site-specific bathymetric or seabed sediment data; open-source bathymetric and seabed sediment data has been reviewed to provide an overview of the expected water depths, seabed features and seabed sediments on site.

7.1 Bathymetry

Open-source bathymetric data has been used to provide an overview of the expected water depths across the two permit areas.

The water depths across the VIC/P79 Permit Area range from 35 m in the northwest of the permit area to over 1100 m in the south of the permit area. For the most part, the area sits on the continental shelf, lying in water depths <120 m. As the site extends southwest from the 120 m w.d. contour, the seabed descends more rapidly to >1100 m w.d.

The water depths across the T/49P Permit Area range from 70 m in the east of the permit area to 1465 m in the southwest of the permit area. For the most part, the area sits on the continental shelf, lying in water depths <120 m. As the site extends west from the 120 m w.d. contour, the seabed descends more rapidly to >1400 m.

7.2 Seabed Sediments

It is anticipated that the seabed sediments in the Permit Areas will be composed of lithoclastic sands and gravels in areas lying on the continental shelf, with fine sands, carbonate rich muds and muddy sands in areas lying on the continental slope.

7.2.1 Mobile Sediment Bedforms

It is known that mobile sediment bedforms (ripples, megaripples and sand waves) form in the Bass Strait, with wave heights up to 12 m. It is assumed that in areas of the site where sands are present, there is the potential for sand waves to form.

8 MARINE UXO MIGRATION / DRIFT AND BURIAL

8.1 Migration / Drift

Numerous studies have documented that munitions can migrate across the seafloor; the main force behind this movement is tidal currents. Research by Wilson et al. (2008) highlights that the migration of munitions decreased with burial depth, with munitions in a minimal burial state being particularly susceptible to movement when influenced by a large wave or strong current. Importantly, Wilson's report states that once a munition is completely buried, no further migration occurs unless bottom profile variation allows for re-exposure or there is scour.

The greater the tidal current or current velocity, the greater the likelihood and rate at which UXO items can migrate. However, larger items of UXO such as mines, torpedoes and larger categories of bombs, are unlikely to migrate as far and frequently as smaller items, as they require significant tidal / current velocities to exceed the minimum energy for them to move. Smaller items of UXO, such as AAA projectiles and Small Arms Ammunition (SAA), are more likely to migrate when subjected to lower levels of energy generated by more benign tides and currents.

Additionally, munitions tend to gather in seabed hollows (they roll in, but tidal action is sometimes insufficient to roll them out again). Shoals of fish tend to congregate in seabed hollows too (as they avoid strong currents in slack water) and fishing trawlers trying to catch them are occasionally prone to snagging UXO in their nets bringing them to the surface. Interaction with the seabed from fishing activities are therefore a possible vector for UXO migration.

RPS has considered a report compiled by Menzel, Wranik and Paschen entitled "*Laboratory experiments and numerical simulations on the wave- and flow-induced migration of munition from WW1 and WW2 as a risk assessment for offshore construction".* This report considers the critical velocities needed to move certain objects at various points of burial. The items considered were:

- British Depth Bomb Mark 1;
- British 250 lb General Purpose Bomb;
- German Mine Type GU; and
- German Mine Type GY.

The critical velocities in m/s are presented below for the various statuses of burial:

Table 8.1 - Critical Velocities

Item	Critical Velocity @ 5% Burial (m/s)	Critical Velocity @ 15% Burial (m/s)	Critical Velocity @ 30% Burial (m/s)	Critical Velocity @ 50% Burial (m/s)
Mark 1	1.2	1.5	1.9	2.2
250 lb GP	1.6	2	2.4	2.7
GU Mine	1.8	2.1	2.5	3.3
GY Mine	2.2	2.7	2.9	3.9

The results show scenarios with conservative assumptions and it should be noted that the following assumptions have been made:

- A sandy, non-cohesive seabed is required;
- The objects must be at least partially buried;
- An accumulation area is formed in the wake of the objects;
- Flow through the sediment is neglected;

- The influence of surface waves is neglected;
- Ripples, dunes and the overall shape of the seabed are constant;
- The influence of the water column above the object is neglected; and
- The value of the incident velocity is defined 20 cm above the seafloor in realistic scale.

The results show that the larger an item is and the greater its mass, the larger the tidal current or current velocity must be to move it.

The most appropriate surrogate for the ordnance expected within the site would be the British Depth Bomb Mark 1, which mobilises at 1.2 m/s when 5% buried. Although no current data has been provided, RPS has reviewed open-source current data which indicates that the current velocity is expected to be a maximum of 1 knot (0.51 m/s), with the current velocities on the seafloor expected to be significantly lower than this. The maximum current velocity on site is lower than the critical velocity noted in **Table 8.1**. Therefore, it is concluded that seabed currents are not sufficient to cause the migration of UXO.

8.2 Depth of Burial

8.2.1 Burial Via Initial Penetration

When a munition is fired/dropped from height, its velocity upon initial impact provides the potential for the item to penetrate the seabed. In situations where a device impacted into >10 m depth of water, it is likely that penetration would have been retarded significantly by the water and the ordnance would come to rest on or very near the seabed (*within the top 2 m*). Given the water depths located throughout the site, it is considered highly unlikely munitions would have become buried when coming to rest on the seabed.

Certain munitions, including those that have either been dumped, placed (*e.g. sea mines*) or have migrated from elsewhere, are likely to have landed on the surface of the seabed rather than penetrating.

8.2.2 Burial Via Natural Processes

In the softer sediments, it is possible for munitions to be covered by shifting sediments on the seabed and subsequently become buried. This is dependent on the mass, dimensions/shape of the item and the sediments upon which it came to rest as well as the currents affecting the area, however the maximum burial depth due to scour is approximately equal to the diameter of the munition. Burial is not possible in areas where bedrock is exposed.

Given the water depths throughout the site, it is considered likely that burial via natural processes (i.e. mobile seabed) will be the main form of burial rather than burial as a direct result of penetration upon impact.

8.2.3 Depth of Burial Analysis

RPS have determined that any UXO present on site is likely to be buried to scour depth (approximately equal to the diameter of the munition) plus the wave height of any mobile sediment bedforms present.

9 RISK MITIGATION STRATEGY

9.1 Mitigation Strategy Rationale

RPS' Risk Assessment for Potential UXO contamination has identified a risk from UXO on site. The research completed established that there is a Moderate UXO Risk within the AOI as the following three components are present:

- ***Source:*** A UXO risk that exists;
- ***Detonation Pathway:*** A mechanism that may cause UXO to detonate; and
- ***Receptors:*** These would be at risk of experiencing an adverse response following the detonation of a munition.

The purpose of risk mitigation is to take action to address one or more of these components to reduce the probability of an incident occurring or to limit the impact of the problem if it does occur; thereby, eliminating the risk or reducing the risk to an acceptable level, or 'ALARP'.

Obviously, the most effective method of mitigation is to remove the source of the contaminant. However, where this is not feasible it may be necessary to look at alternative methodologies; such as, avoiding a suspect item, removing the detonation pathway or minimising the risks to the receptors.

9.2 Recommendations

Based on the identified risk levels, it is recommended that appropriate mitigation is implemented to reduce the risk, prior to and/or during any works.

Due to the Low-Risk present at the wellsite locations, it would be recommended that Reactive Mitigation is used to manage the residual risk on site. It would be recommended that for all risk areas and activities that at a minimum all personnel are provided an **Explosives Safety and Awareness Briefing**.

The Moderate Risk associated with Snag on Vessel is also mitigated using Reactive Mitigation.

Table 9.1 - Risk Mitigation Strategy Overview

		Mitigation Requirement					
Risk Zone	**Activity / Risk Level***	**UXO Survey**	**Avoidance and / or ID&C**	**Explosives Safety Briefing**	**Explosives Engineer on Vessel****	**Explosives Engineer On-Call**	**Detection Requirement**
A	Low Risk Activities			✓		✓	N/A
B	Low Risk Activities			✓		✓	N/A
C	Low Risk Activities			✓		✓	N/A
D	Low Risk Activities			✓		✓	N/A

*** See Table 6.2 for risk level of each activity in each risk zone**

**** Dependent on Survey Results**

For further information about Reactive Mitigation requirements see Section 11

10 ALARP SIGN-OFF

Based on the results of this Desktop Study, ALARP sign-off would be provided for the site, which would demonstrate that appropriate mitigation has been implemented in order to reduce the risks from UXO to exploration activities to an acceptable level i.e. As Low As Reasonably Practicable

Based on the UXO Risk Profile identified for the proposed activities, which has been assessed to be **Low** (barring unknown factors), RPS would give an **ALARP validity of 5 years from issue of the ALARP certification**. RPS would advise that existing data (if available) and the UXO Risk Profile is reviewed during the ALARP period to ensure this validity and to potentially carry it past the 5-year period.

This sign-off would advise residual risk mitigation required. The likely possible requirements are detailed in the following sections.

Table 10.1 - Requirements for ALARP sign-off for the proposed activities

			Mitigation Requirement	
Risk Zone	**Activity**	**Risk Level**	**ALARP Requirement**	**Validity**
A	Low Risk Activities	Low	Desk Study and Reactive Mitigation	5 Years
B	Low Risk Activities	Low	Desk Study and Reactive Mitigation	5 Years
C	Low Risk Activities	Low	Desk Study and Reactive Mitigation	5 Years
D	Low Risk Activities	Low	Desk Study and Reactive Mitigation	5 Years

N.B. This table does not detail the provisos the ALARP will be under the condition of.

This table provides requirements for ALARP sign-off for the proposed activities. If further/additional activities are to be undertaken, RPS must be consulted

10.1 Data Review

To determine whether it is possible to continue / extend the validity of the ALARP, it would be recommended that a review of the UXO Risk Profile be conducted. This would include review of any additional information which may have come to light since the compilation of this Desktop Study that may have an effect on the UXO Risk Profile. If no additional information was identified that alters the risk, it is likely that RPS would be able to extend the ALARP validity due to the Low Risk nature of the proposed activities.

In addition to the above any changes in industry practices would be reviewed to align the ALARP process in the future. This review can be undertaken at any stage prior to the expiry of the certification (for example at 4.5 years) taking into account notably contingency for additional seasonal restricted surveys in order to allow uninterrupted continuation of projects beyond the expiry date.

11 REACTIVE MITIGATION

The following section outlines in more detail the recommended methods of reactive mitigation that can be implemented on site to further reduce the risks associated with UXO encounters. **Table 9.1** details the zones/activities where reactive mitigation is recommended in place of proactive mitigation.

However, even where a Low Risk has been assessed or after proactive mitigation measures are implemented there will always remain a residual possibility that UXO could be encountered or potentially brought on board the vessels working in the area. Due to the residual risk it is therefore recommended that as a minimum Explosives Safety Awareness be implemented to manage any inadvertent UXO encounters during operations and maintenance.

11.1 Explosives Safety Awareness

Explosives Safety and Awareness Briefings should be provided to personnel carrying out seabed survey and exploration drilling activities. The Briefing would allow the project team to plan the proposed works and potentially deal with the event of a suspicious item / UXO discovery incident. It would address the risk to all of the specific proposed works and will inform personnel how to undertake the works safely and will refer to the specific risk items/hazards that have been identified for the site and where applicable the mitigation that has been completed to reduce the risk.

If deemed beneficial a set of ***Explosives Site Safety Guidelines (ESSGs)*** could be produced, which would be provided to the Client along with training. The guidelines would allow the project team to manage the safety and awareness briefings and provide them in-house and also allow the project team to manage an inadvertent UXO encounter. The guidelines would typically be provided to the Client in the form of a '*Guidelines Document'* along with a supporting PowerPoint Slideshow. Safety and Awareness Training would be provided to key personnel, offshore teams, survey and trenching teams.

RPS would specifically recommend that these be delivered to personnel involved in intrusive works on the seabed. Training on how to recognise UXO for these personnel would be considered most prudent given the risks in the area.

The Explosive Safety and Awareness Briefing and ESSGs could be built into the induction package for the exploration program.

11.2 Explosives Engineer On-Call for Offshore Activities

RPS would recommend an on-call service is set up which can be used by the contractors in the event of a potential UXO encounter. This would provide 24/7 on-call availability to a UXO Expert who could assist the drilling rig and/or vessel in dealing with a potential UXO encounter. A procedure would be implemented in the event that potential UXO is encountered during exploration activities so that the item can be identified and dealt with as quickly as possible.

11.3 Explosives Engineer on Vessel

If the client requires further assurances, an ***Explosives Safety Engineer*** (*Explosives Ordnance Disposal trained*) can be based on board the drilling rig and/or vessel(*s*) during operations, in order to reduce the risks to personnel and equipment and avoid unnecessary delays and associated costs.

Not all apparent UXO items contain energetic material. A qualified Explosives Safety Engineer can often determine which items are considered UXO and deal with them accordingly. In some cases, it may not be possible to visually determine what the item is due to corrosion or encrustation and therefore whether it is UXO or something benign, such as an oil drum. The EOD Engineer would therefore be able to carry out ordnance recognition and minimise delays due to items that do not turn out to be UXO.

The EOD support would include but not be limited to:

- Attendance at risk assessment meetings, such as HIRA's,
- Carrying out Explosive Ordnance Safety and Awareness Briefings for all personnel. The Briefings would be given to all operational personnel working for the Client on site during cable lay operations,

- Development of Emergency Response Plans,
- Monitoring works in order to identify potential UXO items if they are uncovered as works progress,
- Inspecting the equipment (grapnel and trenching equipment) when it is brought back on board the vessel to ensure no ordnance are brought back on board.
- Assist in liaison with relevant authorities / personnel should ordnance be identified and present an explosive hazard,
- Where it is not practical or safe to observe the intrusive works, the Explosives Engineer will be on-call and immediately available to respond to a request for assistance,
- Provide on-call services to immediately respond to suspected ordnance that has been discovered by other site staff,
- Identify an area to which safe-to-move ordnance may be stored prior to recovery by the appropriate authorities.

The main aim would be to avoid interaction with UXO and consider the mitigation that will have already been undertaken in Moderate risk areas and therefore the resulting reduced risk, the risk of encounter should be Low. However, should an item of ordnance be discovered then the following action will be taken:

a. If an item is identified as ordnance, the Explosives Safety Engineer will carry out an ordnance risk assessment. They will assess the nature of the item, its initiation system as well as determining the explosive content. They will assess the requirement and size of any exclusion zone around the item,

b. The Explosives Safety Engineer will inform the Client as to the nature of the item and the conclusions of the risk assessment,

c. If the item does not contain any hazardous components, the Explosives Safety Engineer may remove it from the area of works, or if on the seafloor inform the client that works can continue,

d. If the item is deemed to pose a risk and cannot be moved, the Explosives Safety Engineer will contact the relevant authorities to dispose of the item.

11.4 Anchor Management

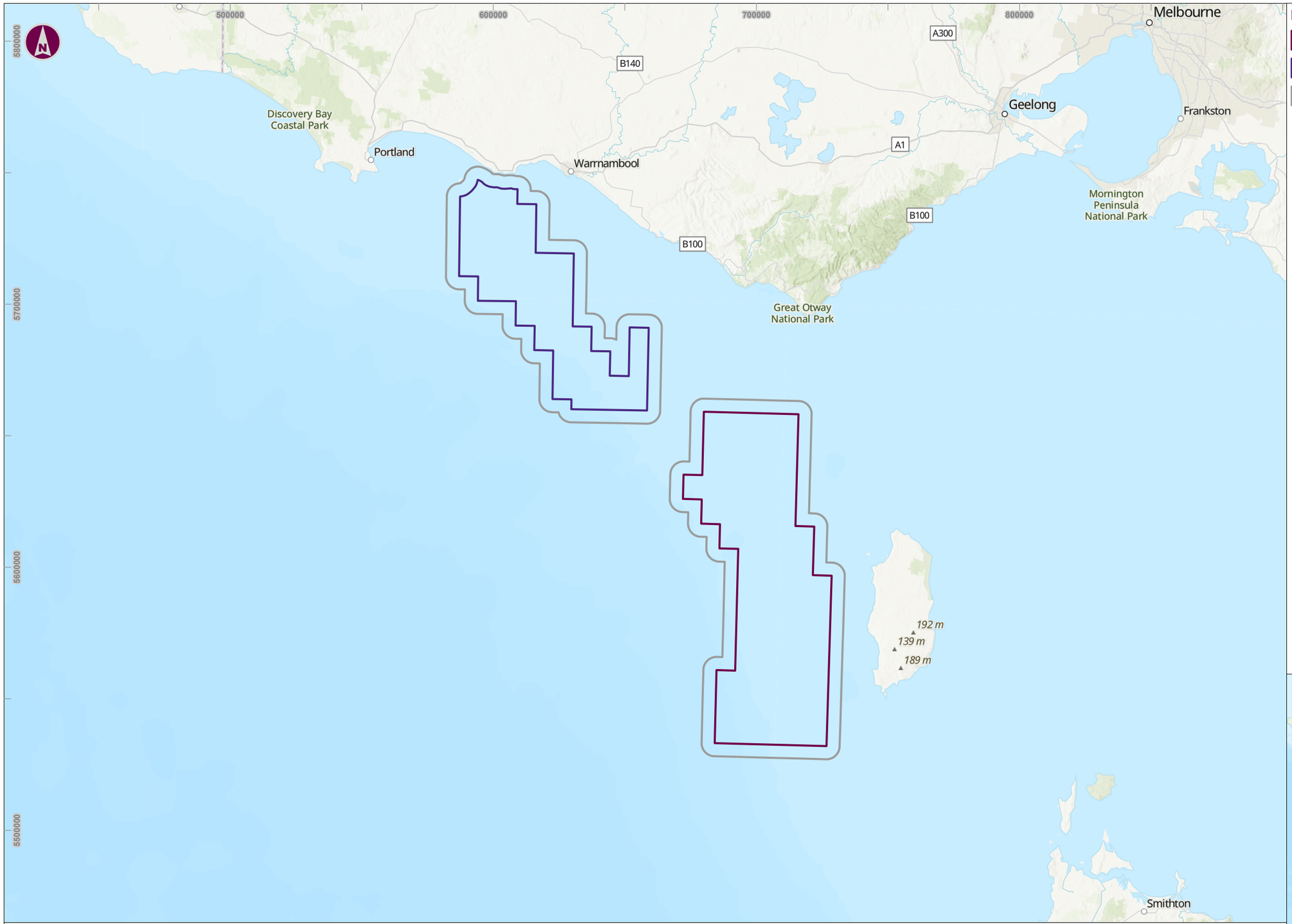
RPS have been advised that seabed survey vessels will not be anchoring. The MODU Drilling Rig will be anchored using 8-12 chain tensioned anchors (~20 tonnes) specific to the rig within a radius of approximately 1 – 1.5 km of the MODU Drilling Rig. It is anticipated that some anchor chain will lie on the seafloor.

It should be noted that the chain attached to any anchor is not considered a significant risk. The highest risk involved with anchoring and encountering UXO is associated with the anchor directly striking a UXO with sufficient force to cause a detonation. Any tensioning once the anchor is placed is expected to have insufficient energy to cause a detonation.

As such, in order to mitigate the risk from UXO during anchoring activities it is recommended that a controlled anchor lowering takes place to reduce the potential force exerted on any items of UXO.

RPS have been advised that, prior to anchor deployment, an ROV run would typically be conducted. This will assist in managing any residual risk present. If anything suspicious is seen during visual inspection it should be avoided when anchoring.

Appendix 1 – Site Map





Legend

- T/49P Boundary
- VIC/P79 Boundary
- Project 5km Buffer

0 20 40 60 80 100 Kilometers

0 10 20 30 40 50 Nautical Miles

Geodetic Information:

CRS: GDA 1994 MGA Zone 54, Datum: GDA 1994
EPSG Code: 9688

Data Sources: Client
Service Layer Credits: World Topographic Map: Esri, HERE, Garmin, FAO, NOAA, USGS
World Hillshade: Esri, USGS

Ver	Description	By	Check	Date
00	INITIAL ISSUE	LM	JS	08/12/22

Figure Number	Rev	Page
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Client	ConocoPhillips
Project	Otway
Title	Project Location
Project Number	EES1447
Scale @ A3	1:1,500,000
Drawn By	LM
Checked By	JS
Status	INITIAL ISSUE
Date Created	08/12/2022

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5. The locations shown are based on the information identified /provided, and should be used for general guidance only.

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Appendix 2 – Terminology

Terminology

Explosive Ordnance Disposal (EOD) - The detection, identification, evaluation, rendering safe, recovery and disposal of UXO.

Fuze- A designed and manufactured mechanism to activate munitions. It can be designed for use by electrical, chemical or mechanical systems, by push, pull, pressure, release and time activation, singly or in combination. Usually consists of an igniter and detonator.

High Explosive (HE) - An explosive that normally detonates rather than burns; that is, the rate of detonation exceeds the velocity of sound.

Initiation - A physical process that sets in motion a cascade of chemical reactions of ever increasing energy (the explosive chain) that will eventually generate sufficient energy (the velocity of detonation) to allow the main charge to detonate in a violent, explosive chemical reaction, releasing energy in the form of heat and blast.

Snag on Vessel - UXO is snagged on submarine equipment and subsequently brought onto the vessel.

Unexploded Bomb (UXB) -The term UXB refers to any WWII aerial-delivered unexploded bomb, torpedo, projectile or mine consisting of a complete ferrous casing (without tailfins) weighing 50kg or greater.

Unexploded Ordnance (UXO) - Explosive Ordnance that has been primed, fuzed, armed or otherwise prepared for action, and which has been fired, dropped, launched, projected or placed in such a manner as to constitute a threat to the safety and/or security of people, animals, property or material and remains unexploded either by malfunction or design or for any other reason.

UXO Contamination - UXO that is present, within any given physical context that is considered to be an impediment to the safe on-going or intended use of a facility, including geological features. Safety in this instance is measured against an acceptable level of exposure to the potential risks that UXO present.

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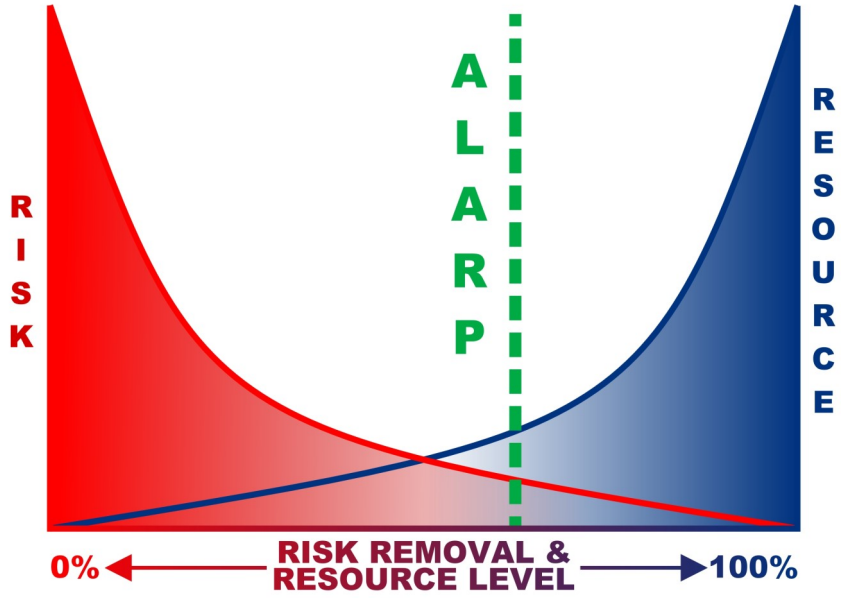
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Appendix 3 – ALARP Principle

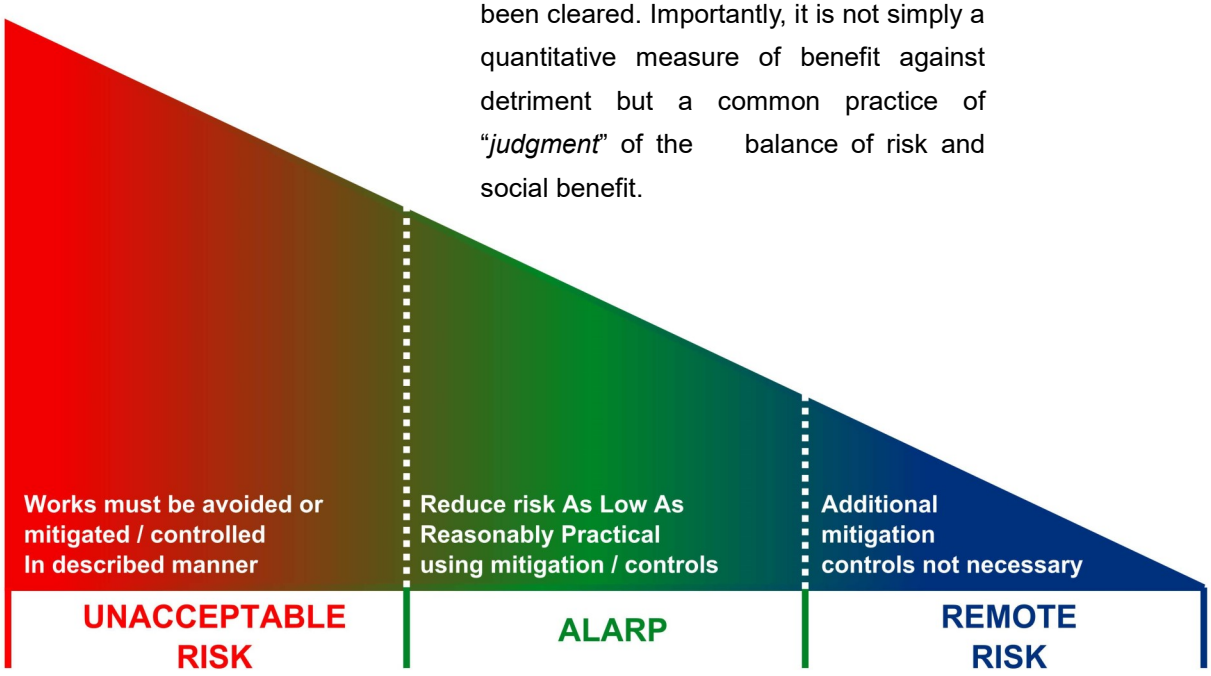
‘ALARP PRINCIPLE’

ALARP has particular connotations in UK Health and Safety law and the core concept of what is “*reasonably practicable*”. This involves weighing a risk against the effort, time and costs needed to control it, which will vary greatly dependent upon the level of UXO Hazard and the environment within which it is associated.

For a risk to be reduced in line with ALARP it must be possible to demonstrate that the cost involved in reducing the risk further would be “*grossly disproportionate*” to the benefit gained. The ALARP principle arises from the fact that it would be possible to spend infinite time, effort and money attempting to reduce a risk to zero, which may never be achievable. This is particularly true of UXO risk, where there will always remain a residual (albeit low) risk, for example from smaller UXO that is not easily detectable, or due to the limitations of survey equipment, and particularly in the marine environment where UXO can migrate after the area has been cleared. Importantly, it is not simply a quantitative measure of benefit against detriment but a common practice of “*judgment*” of the balance of risk and social benefit.



ALARP Resource Graph



ALARP Diagram Approach

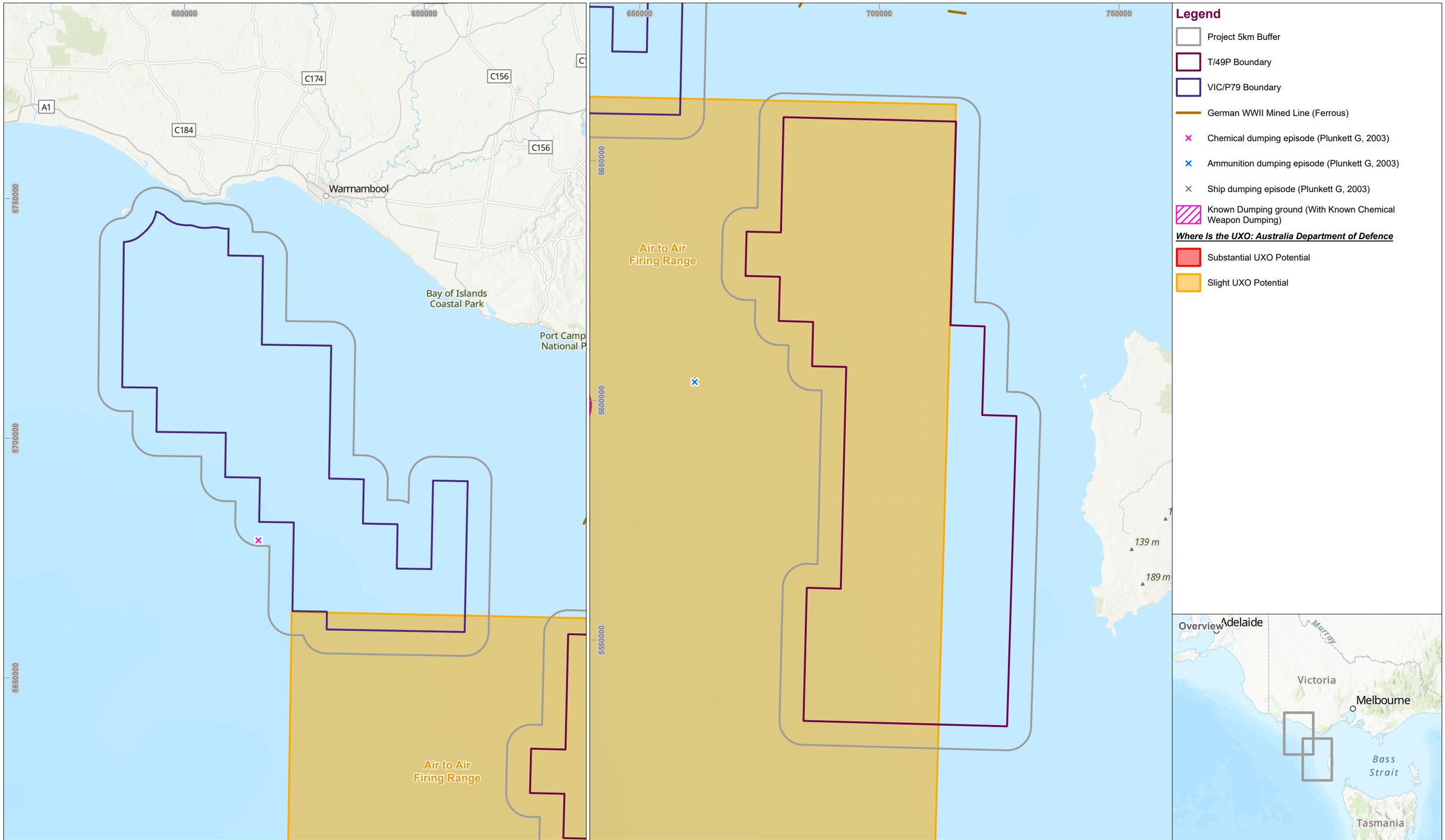
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Appendix 4 – UXO Features Map



Legend

- Project 5km Buffer
- T/49P Boundary
- VIC/P79 Boundary
- German WWII Mined Line (Ferrous)
- Chemical dumping episode (Plunkett G, 2003)
- Ammunition dumping episode (Plunkett G, 2003)
- Ship dumping episode (Plunkett G, 2003)
- Known Dumping ground (With Known Chemical Weapon Dumping)

Where Is the UXO: Australia Department of Defence

- Substantial UXO Potential
- Slight UXO Potential

0 10 20 30 40 50 Kilometers

0 5 10 15 20 25 Nautical Miles

Geodetic Information:
CRS: GDA 1994 MGA Zone 54, Datum: GDA 1994
EPSG Code: 9688

Data Sources: Client, Plunkett G, Australian Department of Defence. Various reference information - see associated report for details. Service Layer Credits: Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, Vicmap, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Ver	Description	By	Check	Date
00	INITIAL ISSUE	LM	JS	08/12/22

Figure Number: EES1447-F-003
Rev: 00
Page: 1 of 1

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Client: ConocoPhillips
Project: Otway
Title: UXO Related Features

Project Number: EES1447
Scale @ A3: 1:750,000

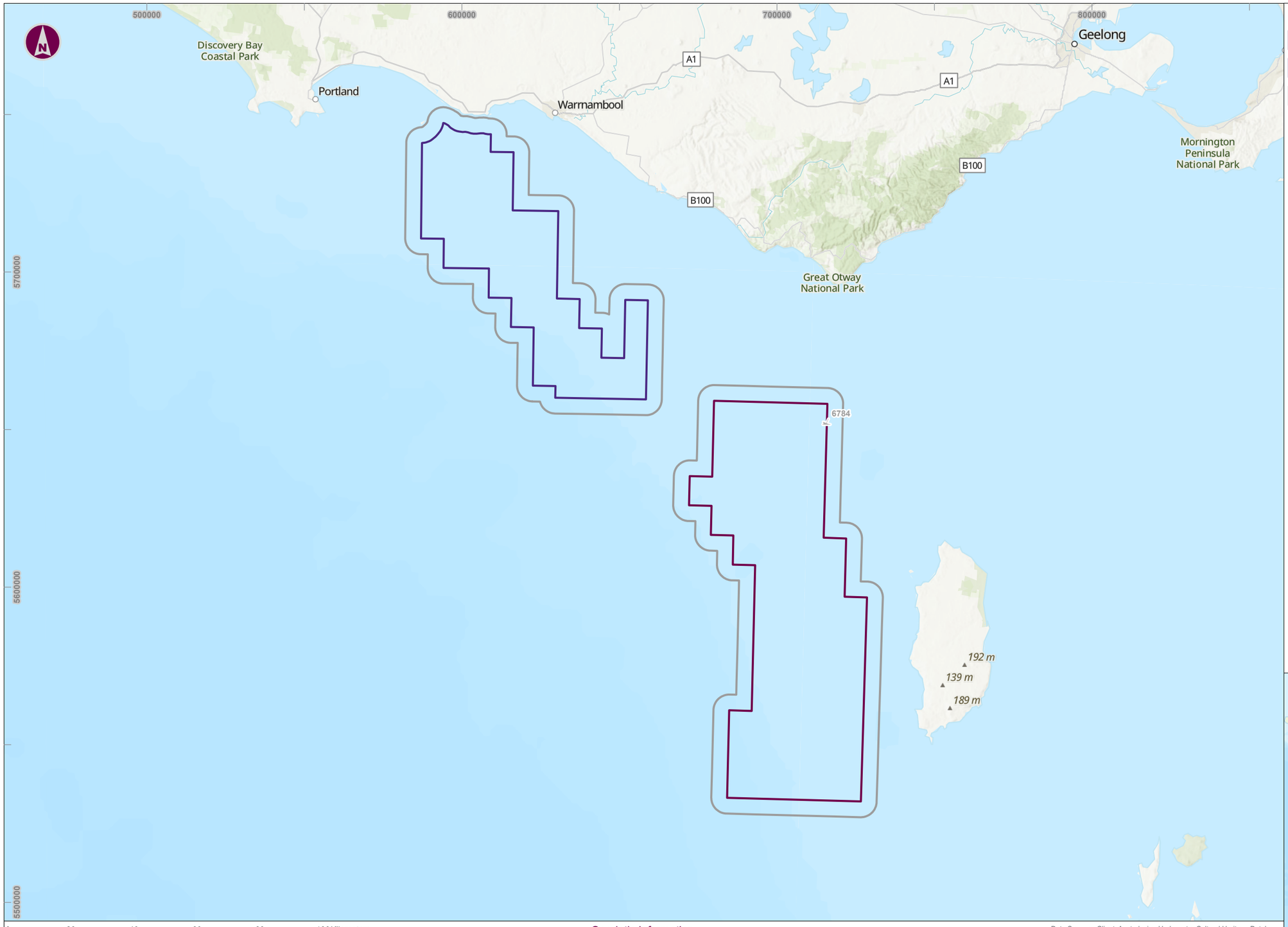
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Appendix 5 – Shipwreck Map



Legend

- T/49P Boundary
- VIC/P79 Boundary
- Project 5km Buffer
- Wreck Record (AUCHD) Within 5km - Not/ Unknown if UXO Related



0 20 40 60 80 100 Kilometers

0 10 20 30 40 50 Nautical Miles

Geodetic Information:
CRS: GDA 1994 MGA Zone 54, Datum: GDA 1994
EPSG Code: 9688

Data Sources: Client, Australasian Underwater Cultural Heritage Database
Service Layer Credits: World Topographic Map: Esri, HERE, Garmin, FAO, NOAA, USGS
World Hillshade: Esri, CGIAR
World Hillshade: Esri, USGS

Ver	Description	By	Check	Date
00	INITIAL ISSUE	LM	JS	08/12/22

Figure Number: EES1447-F-002
Rev: 00
Page: 1 of 1

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Client: ConocoPhillips
Project: Otway
Title: Recorded Wrecks (Within 5km)

Project Number: EES1447
Scale @ A3: 1:1,250,000

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Appendix 6 – Risk Assessment

Regular Munitions		Probability of Detonation						
		Snag on Vessel	Anchoring	Peel Grab Operations	Borehole/Vibrocore	CPT	Grab Sampling	Well Drilling
Small Arms Ammunition		E	F	F	F	F	F	F
Land Service Ammunition		D	E	E	E	E	E	E
≤155mm Projectiles		D	D	E	E	E	E	E
>155mm Projectiles		D	D	E	E	E	E	E
HE Bombs	Allied Origin	C	D	E	D	D	E	D
	Axis Origin	C	E	E	F	F	E	F
Sea Mines	Allied Origin - Contact Mines	B	B	D	B	B	D	B
	Allied Origin - Ground Mines	D	E	E	E	E	E	E
	Axis Origin - Contact Mines	B	B	D	B	B	D	B
	Axis Origin - Ground Mines	C	D	D	D	D	D	D
Land Mines		D	D	E	E	E	E	E
Torpedoes		C	C	E	D	D	E	D
Depth Charges		C	C	E	D	D	E	D
Conventional Dumped Munitions		D	E	E	E	E	E	E
Dumped Chemical Munitions		D	E	E	E	E	E	E
Missiles/Rockets		D	E	E	E	E	E	E

Consequence of Detonation	Activity / Pathway													
	Snag on Vessel		Anchoring		Peel Grab Ops		Borehole/Vibrocore		CPT		Grab Sampling		Well Drilling	
	Water Depth													
Surface	0m-10m	>10m	0m-10m	>10m	0m-10m	>10m	0m-10m	>10m	0m-10m	>10m	0m-10m	>10m	0m-10m	>10m
3	5	5	5	5	5	5	5	5	5	5	5	5	5	5
2	5	5	5	5	5	5	5	5	5	5	5	5	5	5
2	5	5	5	5	5	5	5	5	5	5	5	5	5	5
2	4	5	4	5	4	5	4	5	4	5	4	5	4	5
2	3	4	2	4	2	4	2	4	2	4	2	4	2	4
2	3	4	2	4	2	4	2	4	2	4	2	4	2	4
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	4	5	4	5	4	5	4	5	4	5	4	5	4	5
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	2	3	2	3	2	3	2	3	2	3	2	3	2	3
2	4	4	4	4	4	4	4	4	4	4	4	4	4	4
2	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Source: UXO
Potential Pathway: Geotechnical Investigation and Well Drilling Operations
Potential Receptor: People, Equipment, Infrastructure, Vessels, Environment

Probability: A = high probability to F = Low probability
Consequence: 1 = High to 5 = Low

Assumptions: Probability of detonation is based on a encountering a single item
Consequence/Impact levels are based on the worst case consequence/impact for each tier level

Area	Approx. Depth Range (m LAT)
Zone A	>10m

UXO		Probability of Encounter on Seabed	Probability of Encounter on Vessel*
Regular Munitions			
Small Arms Ammunition		F	F
Land Service Ammunition		F	F
≤155mm Projectiles		F	F
>155mm Projectiles		F	F
HE Bombs	Allied Origin	F	F
	Axis Origin	F	F
Sea Mines	Allied Origin - Contact Mines	F	F
	Allied Origin - Ground Mines	F	F
	Axis Origin - Contact Mines	E	F
	Axis Origin - Ground Mines	F	F
Torpedoes		F	F
Depth Charges		E	F
Conventional Dumped Munitions		E	F
Dumped Chemical Munitions		E	F
Missiles/Rockets		E	F

Activity / Pathway													
Snag on Vessel*	Risk Rating	Anchoring	Risk Rating	Peel Grab Operations	Risk Rating	Borehole/ Vibrocore	Risk Rating	CPT	Risk Rating	Grab Sampling	Risk Rating	Well Drilling	Risk Rating
Final Hazard Level													
FE3	Low	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible
FD2	Low	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FD2	Low	FD5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FD2	Low	FD5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FC2	Low	FD4	Low	FE4	Negligible	FD4	Low	FD4	Low	FE4	Negligible	FD4	Low
FC2	Low	FE4	Negligible	FE4	Negligible	FF4	Negligible	FF4	Negligible	FE4	Negligible	FF4	Negligible
FB2	Mod	FB3	Low	FD3	Low	FB3	Low	FB3	Low	FD3	Low	FB3	Low
FD2	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low
FB2	Mod	EB3	Low	ED3	Low	EB3	Low	EB3	Low	ED3	Low	EB3	Low
FC2	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low
FC2	Low	FC3	Low	FE3	Low	FD3	Low	FD3	Low	FE3	Low	FE5	Negligible
FC2	Low	EC3	Low	EE3	Low	ED3	Low	ED3	Low	EE3	Low	ED3	Low
FD2	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	ED3	Low
FD2	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE3	Low
FD2	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	EE4	Low

Probability: A = high probability to F = Low probability
Consequence: 1 = High to 5 = Low

Final Hazard Level: Encounter (Detonation - Consequence)

Risk Levels:

High
Moderate
Low
Negligible

Notes:

For 'Hazard Levels on Seabed' the depth is stated at the top left of this page
For 'Hazard Levels on Vessel' the depth is Surface (0 m)
All Hazard Levels given are prior to any mitigation
(Detonation - Consequence) Levels are taken from worksheet Hazard_Eval-1
Snag on Vessel refers to any possibility of snagging UXO and transferring to vessel
The final risk rating is based on the highest score for each activity
* For encounter of Chemical Munitions on vessel, the likelihood of snag on vessel resulting from retrieval of cable is considered to be minimal but this does not include residues contaminating equipment

Area	Approx. Depth Range (m LAT)
Zone B	>10m

UXO		Probability of Encounter on Seabed	Probability of Encounter on Vessel*
Regular Munitions			
Small Arms Ammunition		F	F
Land Service Ammunition		F	F
≤155mm Projectiles		E	F
>155mm Projectiles		F	F
HE Bombs	Allied Origin	E	F
	Axis Origin	F	F
Sea Mines	Allied Origin - Contact Mines	F	F
	Allied Origin - Ground Mines	F	F
	Axis Origin - Contact Mines	E	F
	Axis Origin - Ground Mines	F	F
Torpedoes		F	F
Depth Charges		E	F
Conventional Dumped Munitions		D	E
Dumped Chemical Munitions		E	F
Missiles/Rockets		E	F

Activity / Pathway													
Snag on Vessel*	Risk Rating	Anchoring	Risk Rating	Peel Grab Operations	Risk Rating	Borehole/ Vibrocore	Risk Rating	CPT	Risk Rating	Grab Sampling	Risk Rating	Well Drilling	Risk Rating
Final Hazard Level													
FE3	Low	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible
FD2	Low	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FD2	Low	ED5	Low	EE5	Negligible	EE5	Negligible	EE5	Negligible	EE5	Negligible	EE5	Negligible
FD2	Low	FD5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FC2	Low	ED4	Low	EE4	Low	ED4	Low	ED4	Low	EE4	Low	ED4	Low
FC2	Low	FE4	Negligible	FE4	Negligible	FF4	Negligible	FF4	Negligible	FE4	Negligible	FF4	Negligible
FB2	Mod	FB3	Low	FD3	Low	FB3	Low	FB3	Low	FD3	Low	FB3	Low
FD2	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low
FB2	Mod	EB3	Low	ED3	Low	EB3	Low	EB3	Low	ED3	Low	EB3	Low
FC2	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low
FC2	Low	FC3	Low	FE3	Low	FD3	Low	FD3	Low	FE3	Low	FE5	Negligible
FC2	Low	EC3	Low	EE3	Low	ED3	Low	ED3	Low	EE3	Low	ED3	Low
ED2	Low	DE3	Low	DE3	Low	DE3	Low	DE3	Low	DE3	Low	DD3	Low
FD2	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE3	Low
FD2	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	EE4	Low

Probability: A = high probability to F = Low probability
Consequence: 1 = High to 5 = Low

Final Hazard Level: Encounter (Detonation - Consequence)

Risk Levels:

High
Moderate
Low
Negligible

Notes:

For 'Hazard Levels on Seabed' the depth is stated at the top left of this page
For 'Hazard Levels on Vessel' the depth is Surface (0 m)
All Hazard Levels given are prior to any mitigation
(Detonation - Consequence) Levels are taken from worksheet Hazard_Eval-1
Snag on Vessel refers to any possibility of snagging UXO and transferring to vessel
The final risk rating is based on the highest score for each activity
* For encounter of Chemical Munitions on vessel, the likelihood of snag on vessel resulting from retrieval of cable is considered to be minimal but this does not include residues contaminating equipment

Area	Approx. Depth Range (m LAT)
Zone C	>10m

UXO		Probability of Encounter on Seabed	Probability of Encounter on Vessel*	Activity / Pathway											
				Snag on Vessel*	Risk Rating	Anchoring	Risk Rating	Peel Grab Operations	Risk Rating	Borehole/ Vibrocore	Risk Rating	CPT	Risk Rating	Grab Sampling	Risk Rating	Well Drilling	Risk Rating
Regular Munitions				**Final Hazard Level**											
Small Arms Ammunition		F	F	FE3	Low	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible
Land Service Ammunition		F	F	FD2	Low	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
≤155mm Projectiles		E	F	FD2	Low	ED5	Low	EE5	Negligible	EE5	Negligible	EE5	Negligible	EE5	Negligible	EE5	Negligible
>155mm Projectiles		F	F	FD2	Low	FD5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
HE Bombs	Allied Origin	E	F	FC2	Low	ED4	Low	EE4	Low	ED4	Low	ED4	Low	EE4	Low	ED4	Low
	Axis Origin	F	F	FC2	Low	FE4	Negligible	FE4	Negligible	FF4	Negligible	FF4	Negligible	FE4	Negligible	FF4	Negligible
Sea Mines	Allied Origin - Contact Mines	F	F	FB2	Mod	FB3	Low	FD3	Low	FB3	Low	FB3	Low	FD3	Low	FB3	Low
	Allied Origin - Ground Mines	F	F	FD2	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low
	Axis Origin - Contact Mines	E	F	FB2	Mod	EB3	Low	ED3	Low	EB3	Low	EB3	Low	ED3	Low	EB3	Low
	Axis Origin - Ground Mines	F	F	FC2	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low
Torpedoes		F	F	FC2	Low	FC3	Low	FE3	Low	FD3	Low	FD3	Low	FE3	Low	FE5	Negligible
Depth Charges		E	F	FC2	Low	EC3	Low	EE3	Low	ED3	Low	ED3	Low	EE3	Low	ED3	Low
Conventional Dumped Munitions		D	E	ED2	Low	DE3	Low	DE3	Low	DE3	Low	DE3	Low	DE3	Low	DD3	Low
Dumped Chemical Munitions		E	F	FD2	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE3	Low
Missiles/Rockets		F	F	FD2	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE4	Negligible

Probability: A = high probability to F = Low probability
Consequence: 1 = High to 5 = Low

Final Hazard Level: Encounter (Detonation - Consequence)

Risk Levels:

High
Moderate
Low
Negligible

Notes:

For 'Hazard Levels on Seabed' the depth is stated at the top left of this page
For 'Hazard Levels on Vessel' the depth is Surface (0 m)
All Hazard Levels given are prior to any mitigation
(Detonation - Consequence) Levels are taken from worksheet Hazard_Eval-1
Snag on Vessel refers to any possibility of snagging UXO and transferring to vessel
The final risk rating is based on the highest score for each activity
* For encounter of Chemical Munitions on vessel, the likelihood of snag on vessel resulting from retrieval of cable is considered to be minimal but this does not include residues contaminating equipment

Area	Approx. Depth Range (m LAT)
Zone D	>10m

UXO		Probability of Encounter on Seabed	Probability of Encounter on Vessel*
Regular Munitions			
Small Arms Ammunition		F	F
Land Service Ammunition		F	F
≤155mm Projectiles		F	F
>155mm Projectiles		F	F
HE Bombs	Allied Origin	F	F
	Axis Origin	F	F
Sea Mines	Allied Origin - Contact Mines	F	F
	Allied Origin - Ground Mines	F	F
	Axis Origin - Contact Mines	E	F
	Axis Origin - Ground Mines	F	F
Torpedoes		F	F
Depth Charges		E	F
Conventional Dumped Munitions		E	F
Dumped Chemical Munitions		E	F
Missiles/Rockets		F	F

Activity / Pathway													
Snag on Vessel*	Risk Rating	Anchoring	Risk Rating	Peel Grab Operations	Risk Rating	Borehole/ Vibrocore	Risk Rating	CPT	Risk Rating	Grab Sampling	Risk Rating	Well Drilling	Risk Rating
Final Hazard Level													
FE3	Low	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible	FF5	Negligible
FD2	Low	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FD2	Low	FD5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FD2	Low	FD5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible	FE5	Negligible
FC2	Low	FD4	Low	FE4	Negligible	FD4	Low	FD4	Low	FE4	Negligible	FD4	Low
FC2	Low	FE4	Negligible	FE4	Negligible	FF4	Negligible	FF4	Negligible	FE4	Negligible	FF4	Negligible
FB2	Mod	FB3	Low	FD3	Low	FB3	Low	FB3	Low	FD3	Low	FB3	Low
FD2	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low
FB2	Mod	EB3	Low	ED3	Low	EB3	Low	EB3	Low	ED3	Low	EB3	Low
FC2	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low	FD3	Low
FC2	Low	FC3	Low	FE3	Low	FD3	Low	FD3	Low	FE3	Low	FE5	Negligible
FC2	Low	EC3	Low	EE3	Low	ED3	Low	ED3	Low	EE3	Low	ED3	Low
FD2	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	EE3	Low	ED3	Low
FD2	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE4	Low	EE3	Low
FD2	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE3	Low	FE4	Negligible

Probability: A = high probability to F = Low probability
Consequence: 1 = High to 5 = Low

Final Hazard Level: Encounter (Detonation - Consequence)

Risk Levels:

High
Moderate
Low
Negligible

Notes:

For 'Hazard Levels on Seabed' the depth is stated at the top left of this page
For 'Hazard Levels on Vessel' the depth is Surface (0 m)
All Hazard Levels given are prior to any mitigation
(Detonation - Consequence) Levels are taken from worksheet Hazard_Eval-1
Snag on Vessel refers to any possibility of snagging UXO and transferring to vessel
The final risk rating is based on the highest score for each activity
* For encounter of Chemical Munitions on vessel, the likelihood of snag on vessel resulting from retrieval of cable is considered to be minimal but this does not include residues contaminating equipment

Appendix 7 – Consequence Levels

		EXPECTED CONSEQUENCES / IMPACTS			
		Human Health/ Safety	Environment	Financial Impact	
				Plant and Equipment	Structures
CONSEQUENCE LEVEL	*1*	Fatalities Over Extended Area	Major – Full Scale Response Required	Multiple Unit Destruction	Widespread Structural Collapse
	2	Localised Fatalities	Major – Full Scale Response Required	Unit Destruction	Localised Structural Collapse
	3	Serious Injury	Serious Resource Required	Component Replacement / Repairs Required	Structural Damage
	4	Injury Requiring Medical Treatment	Moderate/Limited Response Required	Superficial Damage	Non-Structural / Superficial Damage
	5	Minor Impact/First Aid	Minor Response Required	Minor/ No notable effect	Minor/ No notable effect

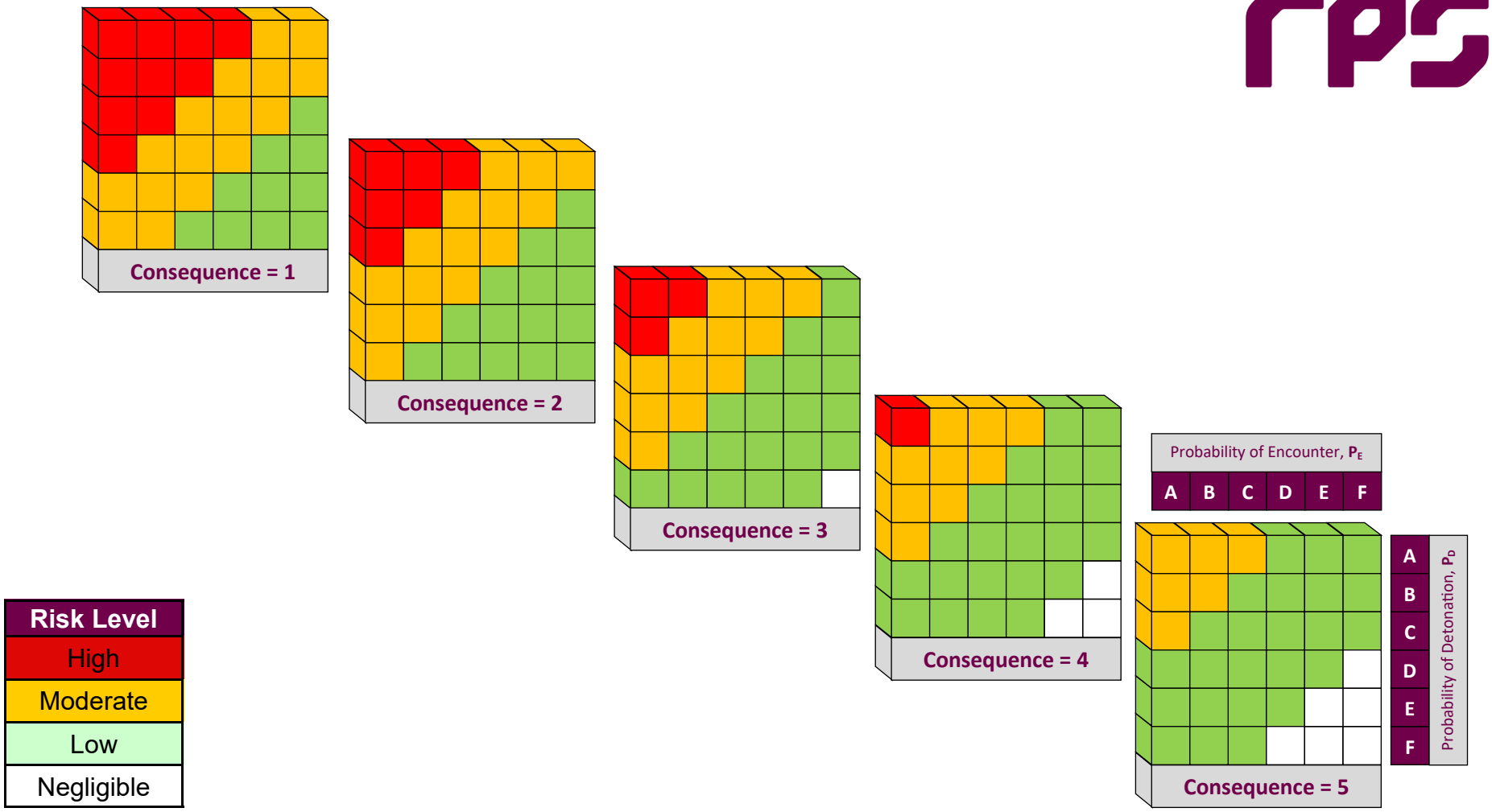
Probability Level	
A	Highly Probable
B	Probable
C	Possible
D	Remote
E	Improbable
F	Highly Improbable

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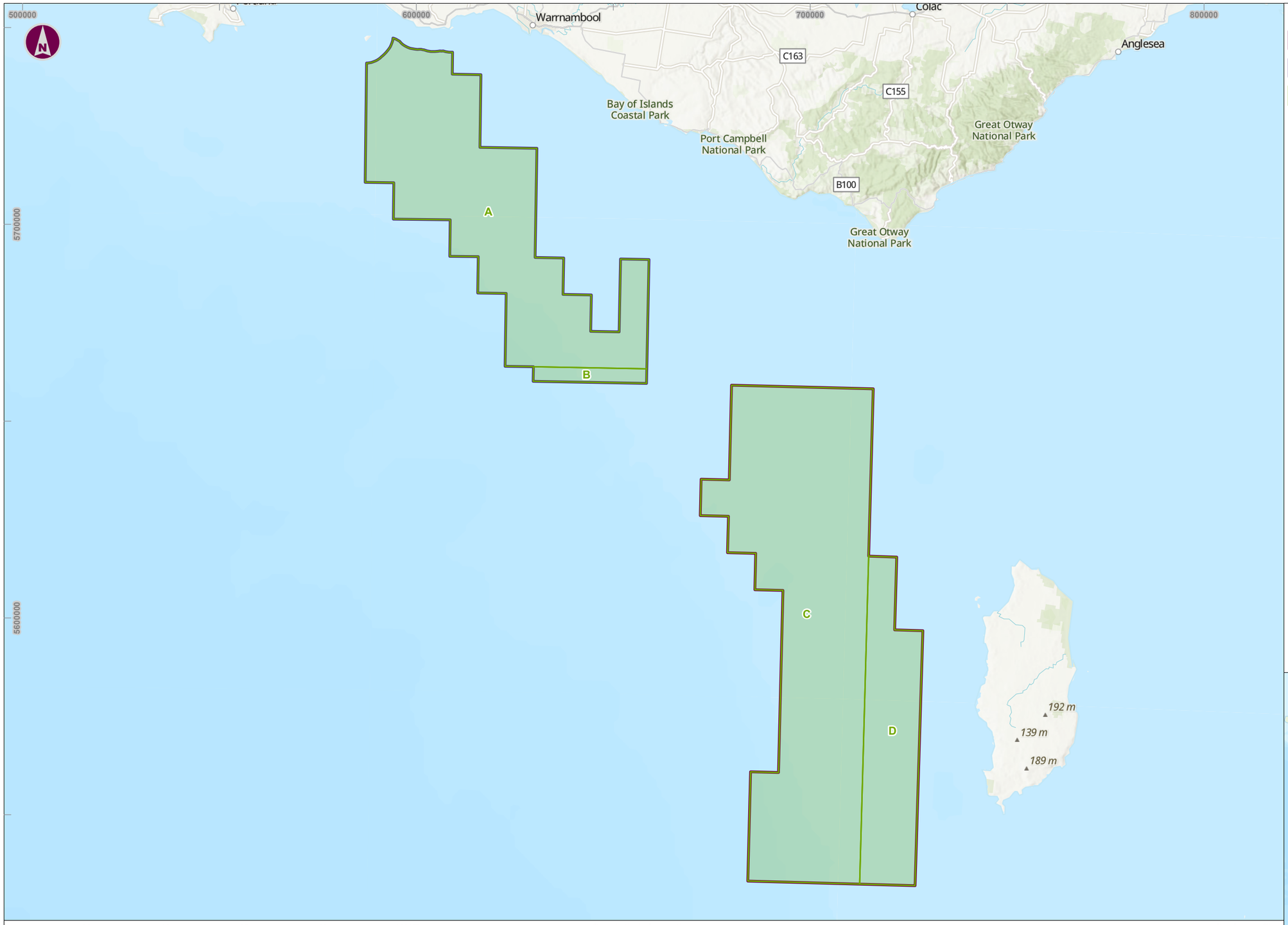
Project: Otway Exploration Drilling, ConocoPhillips

Project Ref: EES1447

Appendix 007: Consequence Levels 2 of 2

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Appendix 8 – Risk Zone Map



Legend

- T/49P Boundary
- VIC/P79 Boundary
- Low UXO Risk



0 20 40 60 80 100 Kilometers

0 10 20 30 40 50 Nautical Miles

Geodetic Information:
CRS: GDA 1994 MGA Zone 54, Datum: GDA 1994
EPSG Code: 9688

Data Sources: Client
Service Layer Credits: Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS, Esri, CGIAR, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Ver	Description	By	Check	Date
00	INITIAL ISSUE	LM	JS	08/12/22

Figure Number: EES1447-F-004
Rev: 00
Page: 1 of 1

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Client: ConocoPhillips
Project: Otway
Title: UXO Risk Zoning

Project Number: EES1447
Scale @ A3: 1:1,000,000

Drawn By: LM
Checked By: JS

Status: INITIAL ISSUE
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APPENDIX L BIOSIS CULTURAL HERITAGE REPORT

Otway Exploration

Cultural heritage desktop assessment

Prepared for ConocoPhillips Australia Pty Ltd

1 November 2023

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Executive summary

Biosis Pty Ltd was commissioned by Conoco Phillips to undertake a cultural heritage desktop assessment for the proposed resource exploration in Bass Strait.

The purpose of this report is to explore cultural heritage and cultural heritage landscapes to understand Country, and Sea Country within and surrounding the project area in order to provide the project a grounding in Aboriginal cultural heritage. This short report will describe the known cultural environment, include a brief ethnohistory and history, and analysis of previous studies.

The study area includes the proposed permit areas (the location of the exploration zone(s)), where seabed surveys and drilling exploration may occur. In general, the permit areas are located south of Port Fairy and the Great Otway National Park, and west of King Island.

The study area consists of a large geographical area noted as the 'Investigation Area for the Identification of Values and Sensitivities' which is based on stochastic modelling of oil spills, generating a statistical area where impacts may occur under many eventualities. This modelling predicts potential oil spill outcomes over many different variables to generate an investigation area for potential impacts.

Due to the significant size of the study area, it is broken into three areas for discussion in parts of this report and for the Communication Plan (CP), this includes:

1. Primary Traditional Owner area (Victoria) – the area directly surrounding the proposed permit areas and adjacent coastlines
2. Secondary Traditional Owner area – the wider area affected by the modelling of oil spills
3. Primary Traditional Owner area (Tasmania) – North and Northwest Tasmania and the Bass Strait islands

Within the study area, along the Victorian coast, there are 5636 registered Aboriginal places with the most common site types being shell middens, artefact scatters and LDADs. Shell middens are typically found along the coastline, whereas artefact scatters, while also being found along the coast, are varied and move inland following freshwater sources, likely to be indicative of past inland-coastal travel routes. LDADs are also typically found further inland than shell middens and artefact scatters, indicative of widespread use of the landscape in the past, rather than concentrations and repeated patterning.

In light of a review of Aboriginal places within the study area, there is a high likelihood for Aboriginal cultural heritage material to be present within the areas subject to potential impact.

On the Tasmanian coast, Aboriginal heritage should be expected in any area of low-lying coastal areas, shelter sites, and sources of food, water and raw materials. These coastal margins contain all Tasmanian Aboriginal site types. It is also known on the West Coast of Tasmania, that a number of rock art sites are located on the coast, many either close or in tidal margins (Dix pers. obs.). Large midden sites are also located very close to the waters edge, as well as some stone quarry sites within tidal margins (Dix pers .obs.).

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1 Introduction

1.1 Acknowledgement

Biosis acknowledges that the authors of this assessment identify as non-Aboriginal Australians living on Bunurong and Wurundjeri Countries. We acknowledge that they interpret, present and understand the past through their own cultural lens. In writing this report about Aboriginal living culture including their cultural heritage and the events following the commencement of colonisation, we pay our respects to Elders past, present and emerging and recognise that Country is unceded.

The authors acknowledge the inherent racism, cultural ignorance and political agendas imbedded within ethnographic sources at the time of, and following, colonisation.

Traditional Owners are the owners of all Traditional knowledge. Traditional knowledge and cultural values remain the intellectual property of the Traditional Owners and the interpretation and understanding of cultural values must be undertaken in genuine consultation with Aboriginal people.

1.2 Scope of works

Biosis Pty Ltd was commissioned by Conoco Phillips to undertake a cultural heritage desktop assessment for the proposed resource exploration in Bass Strait.

It must be emphasised, that this report is not intended to meet the requirements of a formal assessment under First Peoples – State Relations, Heritage Victoria, Aboriginal Heritage Tasmania or Heritage Tasmania guidelines.

The purpose of this report is to explore cultural heritage and cultural heritage landscapes to understand Country, and Sea Country within and surrounding the project area in order to provide the project a grounding in Aboriginal cultural heritage. This short report will describe the known cultural environment, include a brief ethnohistory and history, and analysis of previous studies.

In regard to Tasmanian Aboriginal site data, no Aboriginal Heritage Register Search (AHR Search) was conducted due to time constraints and the need for greater consultation with the Tasmanian Aboriginal Community. The large search area would have encompassed the vast majority of coastal sites within the state of Tasmania, which includes highly significant and sacred sites. As such, it is highly recommended that in-person consultation occurs with the Aboriginal Heritage Council (AHC) and Aboriginal Heritage Tasmania (AHT) so that proper and respectful management of their data can occur. Therefore, the details of this report referring to Tasmania are based on freely accessible published materials.

1.3 Study area

The extent of the study area is shown in Figure 1.

The study area includes the proposed permit areas (the location of the exploration zone(s)), where seabed surveys and drilling exploration may occur. In general, the permit areas are located south of Port Fairy and the Great Otway National Park, and west of King Island.

The study area consists of a large geographical area noted as the 'Investigation Area for the Identification of Values and Sensitivities' which is based on stochastic modelling of oil spills, generating a statistical area where

impacts may occur under many eventualities. This modelling predicts potential oil spill outcomes over many different variables to generate an investigation area for potential impacts.

Due to the significant size of the study area, it is broken into three areas for discussion in parts of this report and for the Communication Plan (CP), this includes:

4. Primary Stakeholder area (Victoria) – the area directly surrounding the proposed permit areas and adjacent coastlines
5. Secondary Stakeholder area – the wider area affected by the modelling of oil spills
6. Primary Stakeholder area (Tasmania) – North and Northwest Tasmania and the Bass Strait islands

1.4 Heritage Advisor/Authorship

Emily Ward BArch

Emily has recently started her career in the Heritage Industry by initially interning at Biosis from August 2022 to September 2022, to her current role as a Graduate Heritage Consultant. Within her internship, Emily learnt and completed many techniques and processes such as aiding in background research to Cultural Heritage Management Plans, illustrating stratigraphic contexts and subsurface field testing. Emily also gained experience in field photography, rock art and heritage building surveys. Emily has been a part of several projects since she was an intern, gaining knowledge of several systems, such as HERMES and ACHRIS.

Emily completed her Bachelor of Archaeology at LaTrobe University at the end of 2022 and will start further study in 2024.

Erica Walther BArch(Hons)

Erica (B Arch Hons (2007)) is an Archaeologist and Heritage Advisor, with over 15 years' experience as a heritage consultant. Erica is the Technical Director for heritage in Victoria and specialises in project management, community liaison and the resolution of complex cultural heritage issues in varying situations. Erica provides specialist cultural heritage legislative advice and completes technical reports to meet the requirements of heritage legislation. Erica has broad experience completing various heritage assessments, including over 60 Cultural Heritage Management Plans (CHMPs). Erica carries out cultural heritage inductions, salvages, and other compliance requirements for completed CHMPs. Erica has also completed Due Diligence Assessments, Heritage Impact Assessments, "Consents to Disturb" and other permit applications, conservation management plans, and heritage reports. Erica has also assisted on a wide variety of other heritage projects, including as an expert witness and with planning and overlay applications, strategic advice, and continues to work towards completing projects to best practice standards.

Erica is a full member of the Australian Association of Consulting Archaeologists and is a listed heritage advisor under the *Aboriginal Heritage Act 2006*.

Dr Samuel Dix BA(Hons), PhD, MCIfA

Samuel has worked in archaeology and heritage management since 2007. Samuel has undertaken numerous archaeological projects around Australia and has worked in consulting, government, teaching and museums in Victoria, Tasmania, Northern Territory, Western Australia, the United Kindom, Middle East, and South Africa. Samuel completed his Bacheor of Arts with First Class Honours where his thesis focussed on hand stencil rock art. After a break from university to undertake consulting, government and teaching based archaeological work, Samuel returned to complete his PhD at Griffith University where he was the recipient of the Australian Research Council Laureate Scholarship in 2016. His thesis explored contact archaeology in

Arnhem Land, and how people reacted to change through what was depicted in rock art. Samuel is a registered heritage advisor under the Victorian *Aboriginal Heritage Act 2006.*

1.5 Traditional Owner Groups

It is not within the remit of this report to undertake consultation with Traditional Owner groups, industry bodies or other stakeholders. No consultation was undertaken. Stakeholder and Traditional Owner engagement is considered in the Communication Plan (CP). In Victoria, Traditional Owner groups are represented by the relevant Registered Aboriginal Party (RAP). There are five RAPs registered in the study area, including the Gunditjmara, Eastern Maar, Wadawurrung, Bunurong, and Gunaikurnai.

In Tasmania, the Traditional Owner group is referred to collectively as the Palawa, and are not represented by a representative or governing body.

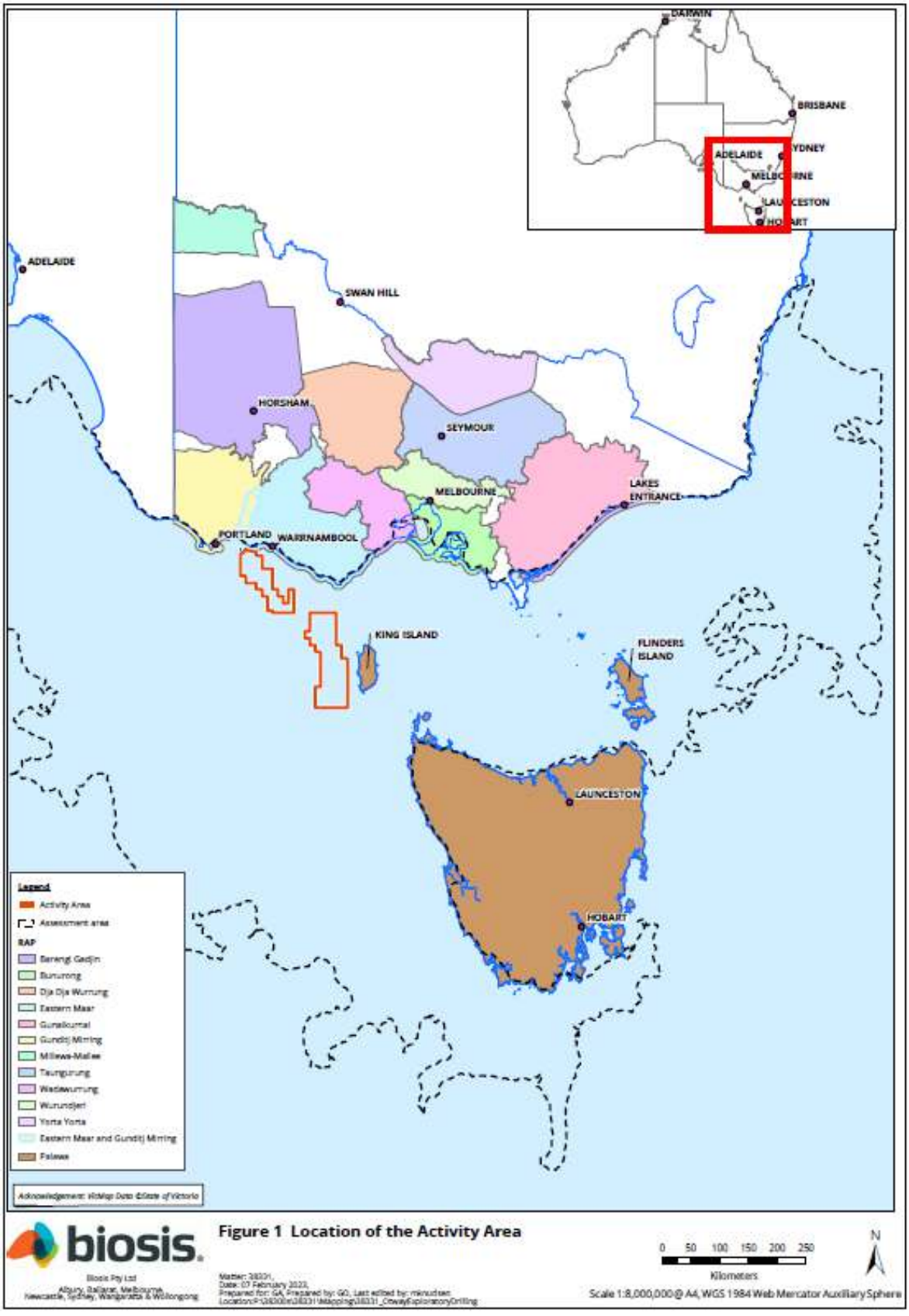


Figure 1 Extent of the study area and Traditional Owner groups

2 Background review

2.1 Geology and geomorphology

The Bass Strait is the stretch between the south of the Australian mainland and north of the Tasmanian state. The Bass Strait formed during the last glacial period, also known as the Last Ice Age, which occurred between 110,000 and 12,000 years ago (Williams et al. 2018, p. 149). During this time, the Earth's climate was much cooler and global sea levels were much lower due to the large amount of water that was locked up in glaciers and ice sheets.

As the climate began to warm and the glaciers began to melt, sea levels began to rise. This process caused the land bridge that connected Tasmania to mainland Australia to be gradually flooded eventually forming the Bass Strait as we know it today.

This gradual flooding is therefore known to have occurred within the period of human occupation in southeastern Australia – the diaspora of people from Victoria to Tasmania occurred prior to the total flooding of the strait, across a land bridge for which archaeological evidence may be buried deep below the ocean (Lourandos 1997, p. 244). Evidence for this indicates people crossed the land bridge from Victoria to Tasmania at 35,000 years ago (Lourandos 1997, p. 254). In addition, dreaming stories of both Victorian and Tasmanian Aboriginal communities further reinforce the memories and songlines relating to the flooding and connection to Sea Country of coastal communities (Nunn & Reid 2016).

2.1.1 Bass Strait, Islands and the land bridge

The Bass Strait is bordered on the west by King Island and the King Island Rise and on the east by Flinders Island and the Bassian Rise, with an approximated depth of between 60 and 80 metres (Harris & Heap 2009, Robinson 1974). The predominant deposits within the Bass Strait consist of Tertiary sediments overlaid on early Cretaceous deposits. The sediments in the early Cretaceous period contained combinations of shale, siltstone, sandstone, while a variety of marl, mudstone, limestone and shale can be seen in the later deposits (Robinson 1974).

Phillip Island's geomorphology is centred around Quaternary limestone dunes with higher-level shore platforms that were formed by Quaternary sea levels (Birch 2003). French Island is boarded by sandy sheets, similar to Western Port Sunkland. Port Phillip Bay is the lowest part of the Sunklands and is currently flooded due to Quaternary sea-level fluctuations in the Last Glacial Maximum (Birch 2003, p. 556). Also during this period the Yarra River water levels had risen and spilled over the coastal plain, forming what is now known as the Bass Strait (Birch 2003, p. 556).

2.1.2 The Victorian Coast

The coastal plains of southwest Victoria are made up of both Tertiary and Quaternary marine and nonmarine sediments, formed on calcareous sands and sandy limestones, overlaid with dune ridges and beaches that were formed during the last 800 000 years. The dune ridges closer to the coast are younger than those further inland and are comprised of calcareous sands. Caves are common in ridges of the limestone sands (Birch 2003, p. 545).

The coastline of western Victoria is seen to have several layers of sedimentary deposits, as evident in the cliffs often found, containing stratigraphic sections of basalt, limestone and clay (Birch 2003, p. 555).

The geomorphic evolution of southeast coastal plains of Victoria is varied, with Tertiary overlaying early Cretaceous sediments on the Otway coast as well as Quaternary sand and limestone dunes in Mornington

Peninsula and Phillip Island (Birch 2003, pp. 547,556). The coast of East Gippsland is covered extensively in coastal dunes, with intermittent pockets of Pleistocene deposits. Parabolic dunes formed from Pleistocene and Holocene age deposits are also located in this area (Birch 2003, p. 557).

2.1.3 The Tasmanian Coast

The Tasmanian coast consists of varying deposits making up its rugged nature. Geological formations include Dolerite, Sandstone, Mudstone, Granite, Limestone, and other Volcanic rocks. These varying geologies are reflected in high cliffs and outcrops, dune-backed beaches, sea stacks and arches. The Tasmanian geological makeup is complex and varies. Along the coastal regions detailed in the study area, these consist of Devonian granites, Tertiary Basalt, Neoproterozoic dolomite, Cambrian bonitite, Cambrian Sediment, and Mesoproterozoic quartzite (MRT: 2022).

Tasmania is known to have been one of the few areas in the southern hemisphere that was glaciated during the Pleistocene (MRT 2002). This generally occurred in higher regions of the state and influenced many of the earlier Pleistocene sites recorded in Tasmania (MRT 2022).

2.1.4 Archaeology of the Sea Floor

Archaeology of the sea floor is an emerging aspect of archaeological science. Throughout the world, archaeological investigations have shown that there is evidence for human occupation to be recovered below current sea levels. Investigations in the Sunda Shelf, Southeast Asia demonstrates the impact of sea level rise at approximately 12,000 years ago, with the investigation of settlements, fish traps, and other structures. Other investigations have occurred in India (Kumar 2021), and the Black Sea (Ryan 2003), investigating more recent sea level change, around 7,500 years ago. In the UK and US, the offshore wind industry is required to complete offshore archaeological investigations including desk-based studies and field survey.

In comparison, Bass Strait is comparable to the vanished landscape of Doggerland that was submerged similarly in rising sea levels during the Mesolithic Period. Like the Bassian Plain, Doggerland formed a land bridge between the United Kingdom and Europe. Works by marine archaeologists have found that many artefacts and environmental sediments still remain form this now vanished ancient landscape (Gaffney et al. 2007). It is even suggested by Weninger et al (2008) that this was caused by a catastrophic flood. However, such ideas are not believed in the example of Bass Strait, and that this was a more gradual separation (see Davidson and Roberts 2008:20)

In Victoria, limited investigations have been completed, however the use of LiDAR and shoreline mapping has occurred. In particular, Gunditjmara have worked with Extent Heritage in partnership with Wessex Archaeology in determining the location of prior shorelines with the use of remote sensing. Should archaeological evidence survive, it is likely that the previous shorelines would provide the most likely locations for this. Physical investigations are likely to be difficult, complex, and costly.

Following deposition, archaeological evidence of human occupation along the Bass Strait has flooded. Since flooding, sedimentation has also occurred, capping any archaeological evidence deep below the current sea floor. The depth of sedimentation varies throughout the strait, however combined with deep waters (400 to 5,500 metres) and harsh conditions, exploration of sea floor archaeology utilising physical methods in this area is currently unlikely.

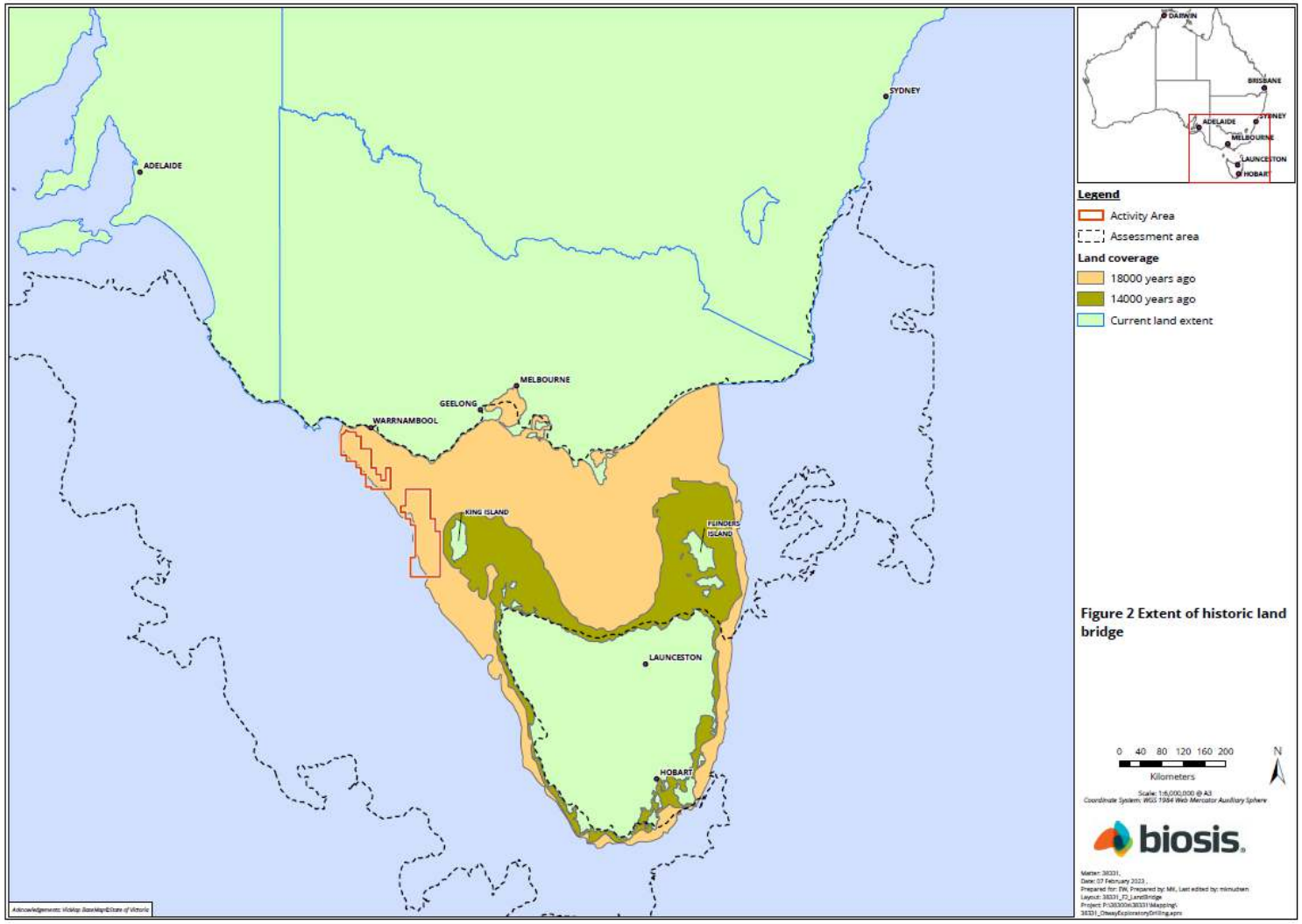


Figure 2 Land Bridge and activity area

2.2 Land use history

Permanent European colonisation of Victoria and Tasmania occurred first in Tasmania, in 1803, and Victoria in 1835. Earlier exploration and transitory, temporary or failed settlements occurred in the two states. Early settlements in Tasmania were penal, with free settlement commencing following. The Gold Rush in Victoria in the 1850s resulted in the rapid expansion of population and the establishment of towns throughout the state. Agriculture and Industry heavily influenced the growth of the population of Tasmania.

Settlement, population growth and utilisation of land for agricultural purposes has resulted in the spread of disease, displacement, and violence to Indigenous communities, leading to a significant decline in population and disruption to traditional cultural practice. Aboriginal people were subject to forced displacement and assimilation, including the forced removal of Aboriginal children, from the 1800s up until the 1970s. Overall the impact of colonisation on Aboriginal people has been devastating.

In regard to the remains of physical cultural heritage (such as sites and places), the practice of archaeology has increased the knowledge of Aboriginal occupation of the land in the past. The potential for archaeology to shed light on Aboriginal connections to Country has been realised with increasing frequency due to relatively recent legislative requirements. Archaeology is, however, a finite resource which has also been impacted by the effects of population growth, construction, land clearance, resource extraction, and climate change. Self-determination for Aboriginal people in regard to ownership of cultural heritage and knowledge has resulted in increased investigations led by Aboriginal people supported by technical experts, following research pathways set by the communities themselves.

Archaeological sites are located throughout the land and adjacent seascape and consist of the physical remains of the way people used the land in the past. Places may reflect resource extraction (such as scarred trees, stone quarries); be evidence of settlement (such as stone huts), manufacture (stone artefact scatters) and cultural practices (such as painting, etchings, and stone arrangements); food consumption (shell middens, earth mounds and hearths); and ritual practice (such as burials). Other cultural values can take the form of intangible places or be recorded in historic (ethnographic) references.

Whilst long-lasting, archaeological sites are heavily affected, and frequently destroyed, by the effects of modern, and past, impacts. Land clearance and increasingly intense bushfires result in the removal of old growth trees, including those showing cultural scarring, and also increases the effects of erosion. Ploughing for agricultural practices displace artefact scatters and deflate earth mounds. Coastal erosion, coastal change and increased storm surges destroys shell middens and artefact scatters located in coastal and offshore landforms. The practice of archaeology itself is destructive and results in the loss of archaeological places. Alteration of the natural environment also affects intangible values, affecting connections between the Dreamtime and the landscape, for example, by interrupting songlines. As Aboriginal people have strong connections to Country, effects on the natural environment, the land, sea, and animals, also have strong effects on Aboriginal people.

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2.3 Aboriginal heritage – registered archaeological places in the study area

A search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken by Emily Ward, Biosis Pty Ltd on the 21 of December 2022 utilising access number 11456. The search area was set by the study area and consists of the entire Victorian coastline.

The search identified 5636 recorded Aboriginal places within the study area (Table 1).

The dominant Aboriginal place types in the study area are shell middens (n=2639, 46.82%), artefact scatters (n=2210, 39.21%) and low density artefact distribution also known as LDADs (n=321, 5.70%). Other place types include earth features (n=181, 3.21%), object collections (n=160, 2.84%), Aboriginal Ancestral Remains (Burial) (n=51, 0.90%), scarred trees (n=42, 0.75%), stone features (n-12, 0.21%), quarries (n=9, 0.16%), Aboriginal historical places (n=8, 0.14%), Aboriginal Ancestral Remains Reinterments (n=2, 0.04%) and rock art (n=1, 0.012%).

Object Collections represent places that have been removed from the context in which they were originally recorded. More specifically, they represent the location of stored artefacts (i.e. heritage consultancies, museums, private collections) or places where artefacts have been repatriated; therefore, Object Collections are not necessarily representative of the archaeological character of the region

Due to most of the search area being coastal, the dominance of shell middens in the study area is not surprising. Middens represent the repeated consumption of coastal resources (predominantly shells of rocky or sandy shore types, such as mussel, pipi, oyster, turban) and consist of the discarded shell. Other objects may be discarded within the midden, such as bones (seal and bird are common), and artefacts. The shells and other items were discarded in discrete areas over time, some middens are small consisting of a smaller number of meals or individuals, others are larger, indicating multiple meals, some revisited over many hundreds, or thousands, of years (Frankel 2017, p.38).

> *'Archaeological evidence from Victoria indicates that occupation of coastal areas is as old as the present coastline – about 6000 years. Most coastal occupation sites in Victoria, however, are 4000 years old or younger' (National Oceans Office, 2002:80)*

Within the study area the Traditional Owner group with the most registered Aboriginal places is Bunurong with 1486 place registrations, with 26.37% of the total registered sites in the study area. This is then followed by Gunditjmara with 853 registered sites (15.77%), then Eastern Maar with 853 registered sites (15.13%), Wadawurrung with 798 registered sites (14.16%), Gunaikurnai with 700 registered sites (12.42%) and the area of overlap of Gunditjmara and Eastern Maar has 88 registered sites (1.56). The area within the study area that has no registered RAP group has a total of 822 registered sites (14.16%). The specifics of each group are discussed below.

The areas of Bellarine Peninsula, Mornington Peninsula and French Island and Wilson's Promontory have been searched specifically on the Victorian Aboriginal Heritage Register (VAHR) as they are distinctive landforms on the coastline of Victoria and hold distinct cultural patterning, regarding both tangible and intangible cultural heritage values. These three areas contribute 1775 of the registered sites (31.5%), out of the 5636 total registered sites in the study area; The Bellarine Peninsula has 578 registered sites, Mornington Peninsula and French Island have 813 registered sites and Wilson's Promontory has 384 registered sites.

Table 1 – Aboriginal places within the study area (Victoria)

Aboriginal Place Type	Total number of sites	Percentage of sites
Aboriginal Ancestral Remains (Burial)	51	0.90%
Aboriginal Ancestral Remains (Reinternment)	2	0.04%
Aboriginal Historical Place	8	0.14%
Artefact Scatter	2210	39.21%
Earth Feature	181	3.21%
LDAD	321	5.70%
Object Collection	160	2.84%
Quarry	9	0.16%
Rock Art	1	0.012%
Scarred Tree	42	0.75%
Shell Midden	2639	46.82%
Stone Feature	12	0.21%
Total	5636	100%

2.3.1 Primary Traditional Owner Area - Gunditjmara Aboriginal places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 889 recorded Aboriginal places within the Gunditjmara RAP area. The dominant Aboriginal place types in the study area are artefact scatters (47.36%), shell middens (38.81%) and LDADs (6.3%).

Artefact scatters have been registered throughout the search area, with notable clusters of artefact scatters south of Portland, around Point Danger. Low Density Artefact Distributions (LDADs) consisting of fewer artefacts less densely present than artefact scatters, are most often found further inland, compared to artefact scatters and shell middens which are located close to the shoreline. This suggests concentration of activity close to the coast, and increased transitory movement to and from the coast, as material is being discarded when people are moving across the landscape.

Other registered place types include earth features (6.3%), object collection (0.56%), Aboriginal historic places (0.34%), Aboriginal Ancestral Remains Burial (0.11%), quarry (0.11%) and scarred trees (0.11%) There are no registered sites in the western most area of the Gunditjmara RAP group, within the study area. This area is along the southern most point of the Fitzroy River and west of Narrawong.

2.3.2 Primary Traditional Owner Area - Eastern Maar Aboriginal places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 853 recorded Aboriginal places within the Eastern Maar RAP area. The dominant Aboriginal place types in the study area are shell middens (53.81%), artefact scatters (34.11%) and earth features (5.39%)

Shell midden sites on in coastal landforms have been frequently registered. The artefact scatters with the study area tend to follow natural paths inland. This suggests movement to and from the coast, with people utilising land resources. This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016).

Other registered place types include LDADs (3.99%), object collection (1.52%), Aboriginal Ancestral Remains Burial (0.94%), quarry (0.12%) and stone features (0.12%)

2.3.3 Primary Traditional Owner Area – Shared Gunditjmara and Eastern Maar Aboriginal places

In this area, the two RAP groups overlap. The search of the Victorian Aboriginal Heritage Register (VAHR) identified 88 recorded Aboriginal places within the shared Gunditjmara and Eastern Maar RAP area. The dominant Aboriginal place types in the study area are shell middens (52.27%) artefact scatters (34.09%) and stone features (7.95%).

Majority of the artefact scatters and shell midden sites with the study area are located between the coast and Eumerella River. This suggests the use of both fresh and sea water sources for material and resources. Shell midden sites can be found along the coastline while the artefact scatters tend to be closer to fresh water sources. This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016).

Other registered place types include earth features (4.55%) and Aboriginal historic places (1.14%).

2.3.4 Secondary Traditional Owner Area - Wadawurrung Aboriginal places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 798 recorded Aboriginal places within the Wadawurrung RAP area. The predominate Aboriginal place types in the study area are artefact scatters (46.12%), shell middens (33.83%) and LDADs (9.27%).

Within the study area, artefact scatters tend to follow freshwater sources inland and cluster around headlands (such as the Queenscliff and the Indented Heads area). This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016), with groups using freshwater sources as occupation sites and opportunities for resource gathering, as well as using the headlands as vantage points across the bay or out to sea. LDADs are most often found further inland, compared to shell middens which are located closer to the shoreline. This suggests movement to and from the coast, as material is being discarded when people are moving across the landscape

Other registered place types include object collection (5.64%), earth features (2.88%), scarred trees (0.88%), Aboriginal Ancestral Remains Burial (0.75%) Aboriginal historic places (0.25%), stone features (0.25%) and quarry (0.13%)

Bellarine Aboriginal Places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 578 recorded Aboriginal places within the Bellarine Peninsula. The predominate Aboriginal place types found on the Bellarine Peninsula are artefacts scatters (48.44%), shell middens (29.41%) and LDADs (10.03%).

Within the study area, artefact scatters tend to follow freshwater sources inland and cluster around headlands (such as Queenscliff and Barwon Heads). This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016), with groups using freshwater sources as occupation sites and opportunities for resource gathering, as well as using the headlands as vantage points across the bay or out to sea. LDADs are most often found further inland, compared to shell middens which are located closer to the shoreline. This suggests movement to and from the coast, as material is being discarded when people are moving across the landscape

Other site types include object collection (6.75%), earth features (3.29%), Aboriginal Ancestral Remains Burial (0.87%), scarred trees (0.69%), Aboriginal historical places (0.35%) and stone features (0.17%).

2.3.5 Secondary Traditional Owner Area - Bunurong Aboriginal places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 1486 recorded Aboriginal places within the Bunurong RAP area. The predominate Aboriginal place types in the study area are shell middens (45.56%), artefact scatters (38.36%) and LDADs (8.28%).

Within the study area, artefact scatters on French Island and Phillip Island are found further inland, compared to shell middens. Some of the shell middens within the study area can be found in clusters around headlands (such as the Portsea and Sorrento area). This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016), with groups using freshwater sources as occupation sites and opportunities for resource gathering, as well as using the headlands as vantage points across the bay or out to sea.

Other registered place types include object collection (5.79%), earth features (1.28%), scarred trees (0.20%), Aboriginal Ancestral Remains Burial (0.20%), quarry (0.13%). Aboriginal historic place (0.07%), rock art (0.07%) and stone features (0.07%)

Mornington Peninsula and French Island Aboriginal Places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 813 recorded Aboriginal places within the Mornington Peninsula and French Island area. The dominant Aboriginal place types in the study area are shell middens (50.43%), artefact scatters (31.12%) and LDADs (11.69%).

Along the coast of the Mornington Peninsula there is a significant increase in shell midden sites from Sorrento to Cape Schanck. This could indicate targeted gathering of resources specific to this area and purposeful occupation of the coastline. From Cape Schanck, moving east, there is a noticeable decrease in the number of registered sites along the coast. Shell middens can be found along the coast, either along the shore or along creeks close to the coast (such as Merricks Creek). Artefact scatters can be found intermittently along the coast but can also be seen following water sources inland. This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016), with groups using freshwater sources and coastal sites as occupation sites and opportunities for variety in resource gathering. LDADs are an inland site type within the locality. This suggests movement to and from the coast, as material is being discarded when people are moving across the landscape.

There are 50 registered sites on French Island. Only nine of these sites are located along its coast, the other 41 are inland sites, with the majority of the sites being artefact scatters. The inland artefact scatters are located along paths of water, suggesting targeted use of the landscape (land use patterning).

Other registered place types include object collection (4.31%), earth features (1.72%), scarred trees (0.37%), Aboriginal historic places (0.12%), quarry (0.12%) and rock art (0.12%).

2.3.6 Secondary Traditional Owner Area - Gunaikurnai Aboriginal places

The search of the Victorian Aboriginal Heritage Register (VAHR) identified 700 recorded Aboriginal places within the Gunaikurnai RAP area. The predominate Aboriginal place types in the study area are shell middens (46.29%), artefact scatters (43.14%) and scarred trees (4.29%).

Clusters of artefact scatter sites can be found on the eastern coast of the Corner Inlet Marine and Coastal Park. These artefact scatters ten to follow sources of freshwater inland. This may indicate some form of land use patterning (Lawler, Oataway, & Berelov 2016), with groups using freshwater sources as occupation sites and opportunities for resource gathering, as well as using the headlands as vantage points across the bay or out to sea.

Other registered place types include LDADs (2.14%), Aboriginal Ancestral Remains Burial (2.14%), earth features (1%), object collection (0.57%), Aboriginal Ancestral Remains Reinternment (0.14%), Aboriginal historic places (0.14%) and stone features (0.14%).

Wilson's Promontory Aboriginal Places

The Traditional Owners of Wilson's Promontory come from two recognised RAP groups: Bunurong and Gunaikurnai.

The search of the Victorian Aboriginal Heritage Register (VAHR) identified recorded 384 Aboriginal places within the Wilson's Promontory area. The predominate Aboriginal place types in the study area are shell middens (72.40%), artefact scatters (21.61%) and earth features (2.08%)

Clusters of shell midden sites can be found both inland and around the coast of Wilson's Promontory. A large shell midden cluster can be found along the western coast of the Promontory with a total of 163 shell midden registered sites. Another two clusters have been recorded around the opening of Wilson's Promontory, with a total of 18 registered sites between them. All 18 shell midden sites are in close proximity to either the coast or moving water. Majority of the artefact scatter register sites recorded at Wilson's Promontory follow water sources inland. The strategic locations of both shell midden and artefact scatter sites demonstrate land use patterning.

Other registered place types include LDADs (1.56%), Aboriginal Ancestral Remains Burial (1.3%), object collection (0.52%), Aboriginal Ancestral Remains Reinternment (0.26%) and scarred trees (0.26%)

2.4 Aboriginal heritage – archaeological places in Tasmania

2.4.1 Primary Traditional Owner Area – Bass Strait Island Aboriginal places

Today, the Tasmanian Aboriginal people refer to sea country as tayaritja/Bass Strait Sea Country Protected Area (IPA) (TAC 2022). In recent works, the Marine Parks Project has been initiated to establish and recognise Aboriginal connection to the sea, as well as those areas of land now inundated after the rising sea levels after the last Ice Age. The South-east Marine Parks Network is located from Tasmania, Victoria and South Australia and includes:

- Underwater canyons and mountains;
- Diversity and abundance of marine creatures (unique globally to the study area);
- Rich diversity of marine mammals and birds (Aboriginal Education Tasmania 2022)

Tayaritja Sea Country IPA is managed by the Tasmanian Aboriginal Centre (DCCEEW 2022). These include Ramsar wetland as well as ecologically significant coastal habitats. The program will assist the Tasmanian Aboriginal Centre, and the broader Tasmanian Aboriginal Community with the rehabilitation, restoration and monitoring of the significant marine ecosystem (DCCEEW 2022). This will also aim to protect threatened marine animals and seabird life, including over 120 plant species (DCCEEW 2022).

Mackay (1946) was the first to identify archaeological evidence of past Aboriginal use of the Bass Strait Islands in the 1930s (see also (Sim 1990). Earlier thoughts were that these were stone artefacts left behind when the Tasmanians were moved to Flinders Island by George Augustus Robinson in the 1830s. It was not until Rhys Jones' work in the 1960s that attention to the Bass Strait islands was made. Sandra Bowdler (1979) excavated at Cave Bay Cave on Hunter Island that provided the first evidence of Pleistocene occupation, dating from 23,000 years. At this time, this was the oldest recorded date of Aboriginal occupation in Tasmania. This was also archaeological proof of the Bassian Land Bridge that once connected Tasmania to Mainland Australia (Sim 1990).

Further work was carried out on Flinders Island and several other smaller islands in Bass Strait showed signs of earlier occupation, including stone artefacts, middens and burials. It was believed at the time that the absence of middens on some islands, but the presence of stone artefacts meant that the midden sites were once closer to the original pre-Ice Age coast, which is now under water (Orchiston & Glenie 1978). The first middens excavated in Bass Strait was by Orchistone (Orchiston & Glenie 1978, Orchiston 1979, Orchiston

1984), however, the full details of the report have not been published. (Sim 1990) recorded a number of middens on Flinders Island in 1989 and noted that many of the remaining midden sites were found where the sea floor drops away abruptly, further suggesting that many of the midden sites were possibly found on ground level now under water due to rising waters after the Ice Age. (Sim 1990) argued that the Bass Strait islands were abandoned before the last remnants of the Bassian Plain land bridge between Mainland Australia and Tasmania disappeared. Davidson and Roberts Davidson & Roberts (2008:20) state:

> *For a while, perhaps, it was possible to use watercraft to maintain contact with families and friends on the other side but eventually this became more difficult. Boats sank sometimes, or storms and rough seas would have made the crossing perilous. When the sea barrier became too wide, those left on the Tasmanian side turned their backs and never saw their friends and families again. It proved to be a monumental turning point, leading to an independent evolution in their technology, economy, society and culture. They were alone for five hundred generations, knowing no other people in the world, living with the knowledge and beliefs derived from those they had known before the sea surrounded them. They remained isolated from the rest of humanity until that same sea brought the first Europeans in the late seventeenth and early eighteenth centuries*

Brown (1990) conducted excavations on Flinders Island that again proved the antiquity of the Bass Strait Islands, where sporadic occupation from 20,000 years to 8,500 years was found at Mannalargenna Cave on Prime Seal Island. Again, it was hypothesised that the islands were abandoned after 8,500 years due to the rising sea levels (see Sim 1990). Early thoughts at the time state that water craft between the islands would have been possible, and the sea level rise was gradual and would have been shallower. However, with the rise of waters, also meant that the distance between land masses increased, therefore making travel much harder and dangerous. It is thus why many believe that the islands were abandoned around 6,000 years ago when the seas reached their current levels (Sim 1990).

The flooding of the Bassian Plain meant that the people who chose to remain in Tasmania would soon be Isolated for generations. Jones (1971) states '… no other human society, which survived until modern times, had been isolated so completely and for so long'.

2.4.2 Secondary Area – Tasmanian coastal Aboriginal places

Archaeological evidence of occupation in Tasmania range between 34,000 – 40,000 BP. The most accurate date for occupation is from the Parmerpar Rockshelter close to Cradle Mountain that was excavated by archaeologist Richard Cosgrove (Mulvaney & Kamminga 1999, p. 189). This was a time when Tasmania was still a part of the landmass of Australia before it was disconnected with the flooding of the Bassian Plain after the last Ice Age. Further excavations of Kutukina Cave (formally Frasier Cave) in southwest Tasmania established Pleistocene settlement of Tasmania with radio carbon dates ranging from 15,000 to 20,000 years BP (Kiernan, Jones, & Ranson 1983, Mulvaney & Kamminga 1999, p. 182).

By the end of the last Ice Age (12,000 BP) the rising temperatures and subsequent rising sea levels flooded the Bassian Plain and separated Tasmania from the mainland of Australia (Kee 1987, p. 12; Taylor 2003). The formation of what is now known at the Bass Strait ultimately led to the isolation of the Tasmanians from their groups on the mainland of Australia. The resulting 10,000 years of isolation crafted a unique culture and economy that was independent from any mainland Australia influence (Mulvaney & Kamminga 1999, p. 339). A series of environmental and climatic changes started to occur in Tasmania as a result of this separation with a reduction in rainfall, lower than normal temperatures, some reduction in the seeding of vegetation, as well as the formation of sand dune systems that were to become a prime area for the discovery of Aboriginal remains. Kee (1987, p. 14) stated that these dunes formulated a new abundance of resources available to the Tasmanian's, which is reflected in much of the early archaeology of this period. These climatic changes started to stabilise around 6,000 years ago. This has been noted by radiocarbon dating at Carlton Bluff, where dates ranged from 8,000 to 6,000 BP (Dix 2015, pp. 147–8); Kee 1987, p. 12;

Neil 1981; Reber 1965), and therefore the range of sites found on the coast are more than likely representative of this 6,000 year figure.

Regionally, sites vary in Tasmania. As such, the state has been divided into three geographic regions. Various studies were conducted in the 1980s and 1990s to understand these regional differences in sites, and to understand more broadly Tasmanian Aboriginal archaeology (Brown 1991; Cane 1980; Cosgrove 1985; 1990; Gaughwin 1985: 52; Jones 1965; 1966; 1967; Key 1991; Lourandos 1968; 1970; 1977; MacFarlane 1993; Stockton 1977a, 1977b; 1982).

- East/South East Tasmania
  - Middens formulate 90% of all site types on the east coat with a range of shell from turbo, oyster, limpet, abalone and mussel. Brown (1991:46) determined that turbo middens dominated areas behind rock platforms where oysters were mostly predominant behind sandy beaches, where shell fish consumption generally took place within the immediate proximity of where it was procured from;
  - 50m within the coastline appears to be the limit of the majority of the larger sites in the area;
  - Sites are generally situated on well drained more inland areas;
  - That 81% of sites recorded contained some level of stone artefacts, and generally consist of hornfels, cert, quartzite and chalcedony flakes.
  - Stone artefact scatters were generally located on flat or gently inclined landscapes where they were close to a water source;
  - The underlying geology of the inland area suggests that areas where the underlying rock was sandstone was more favourable over those areas that contain dolerite;
  - Sandstone rock shelters located close to water often contain signs of occupation.
  - Rock art can occasionally be found on sandstone rock shelters, and is generally executed in ochre.
- Archaeological Sites – North/ North East Tasmania
  - Sites generally occur on high energy coastlines;
  - Approximately 78% of sites occur within 50m from a water source;
  - Sand dune areas most commonly have sites located on them;
  - The main stone typology noted in these assemblages include hornfels, chert, and quartz.
  - Rock art can be found pecked in stone on coastal margins

- Archaeological sites North West/ West/ South West
  - Majority of sites can be found on sand dunes close to rock platforms;
  - Middens are generally smaller and lower on sandy shores.
  - Middens are generally absent along rocky granite shorelines.
  - Site types include artefact scatters, isolated artefacts, stone and ochre quarry sites and rock shelters.

- The main stone types used in the area include spongolite, quartzite, quartz, silcrete and hornfels.
- Artefact scatters and isolated artefacts are generally located on the forest plain.
- Stone artefacts will be varies in material type, which reflects the opportunistic nature of collecting material.
- Areas within 500m of major water courses and creeks will generally contain Aboriginal sites.
- Sites that contain stone artefacts made from spongolite artefacts will no predate 2,500BP.
- Generally, sites are 70 to 100 artefacts per km^2. Densities are approximately 1.7 artefacts per site in places away from major rivers and quarry sites, whereas there will be approximately 6.5 artefacts per site in areas close to these resources.
- Sites will generally be located near the transition of inland heath plains and forest margins.
- Large artefact scatters will be located close to major creeks or rivers especially where flat grounds are associated with the area;
- Hut depression occur on coastal margins, generally close to food sources
- Rock art is found on coastal margins, and is generally pecked or engraved on large sandstone faces, or where creeks exit to the sea.

2.5 Archaeological summary

Within the study area, along the Victorian coast, there are 5636 registered Aboriginal places with the most common site types being shell middens, artefact scatters and LDADs. Shell middens are typically found along the coastline, whereas artefact scatters, while also being found along the coast, are varied and move inland following freshwater sources, likely to be indicative of past inland-coastal travel routes. LDADs are also typically found further inland than shell middens and artefact scatters, indicative of widespread use of the landscape in the past, rather than concentrations and repeated patterning.

In light of a review of Aboriginal places within the study area, there is a high likelihood for Aboriginal cultural heritage material to be present within the areas subject to potential impact.

Within Tasmania, Aboriginal heritage should be expected in any area of low-lying coastal areas, shelter sites, and sources of food, water and raw materials. These coastal margins contain all Tasmanian Aboriginal site types. It is also known on the West Coast of Tasmania, that a number of rock art sites are located on the coast, many either close or in tidal margins (Dix pers. obs.). Large midden sites are also located very close to the waters edge, as well as some stone quarry sites within tidal margins (Dix pers .obs.). It has also been observed that there is evidence some submerged sites within areas of Tasmania, and these will need to be considered (Dix pers.obs.)

2.6 Traditional Owner groups and ethnohistory

For the purposes of this assessment, information about Aboriginal Victorian and Tasmanian pre and post contact history has been sourced from nineteenth and twentieth century primary and secondary ethnographic/historical records.

2.6.1 Primary Traditional Owner Area - Gunditjmara

The Gunditjmara RAP group covers the area boarding the South Australia border with Victoria and the Southern Grampians. This area includes Harrow and Horsham, south to Dunkeld and MacArthur, and southwest to Portland and Cape Nelson. The Gunditjmara RAP area also includes many state and national parks such as Discovery Coastal Park, Mount Richmond National Park, Cape Nelson State Park and the Grampians National Park.

The area between the Shaw and Eumerella Rivers in the south-west to Lake Linlithgow in the north and Yambuk in the south, are shared by both the Gunditjmara RAP and the Eastern Maar RAP groups.

There are many landscapes within Gunditjmara Country – Nyamat Mirring (Sea Country), Tungatt Mirring (Stone Country), Bocara Mirring (River Country) and Woorrowarook Mirring (Forest Country) (Glenelg-Hopkins Catchment Management Authority 2023).

It can be noted that the Gunditjmara view water as part of their traditional lands and should be recognised and protected as such (Clark 1990, RNTBC 2023)

Evidence of Gunditj Mara knowledge of water is found in the eel trapping and the redirecting of waterways at Lake Condah and in the larger Budj Bim National Heritage Landscape. The Budj Bim National Heritage Landscape had been managed by Traditional Owners to form waterways and channels to bring eels down from Darlots Creek into Lake Condah for fishing and resource gathering (Department of Climate Change, Energy, the Environment and Water 2021). This practice can be dated to approximately 6600 years old, with one of five of the eel trap systems around the lake's edge being carbon dated. The relocating and breeding of eels became a sustainable husbandry practice that sustained the Gunditjmara through every season, providing food stuffs and sources of trade. There are plans currently being made with VicWater and Wannon Water to reestablish traditional eel farming in the Budj Bim area (VicWater 2022). Another plan devised to aid in the management of Indigenous water landscapes is the Sea Country IPA Program. The Sea Country IPA (Indigenous Protected Areas) Program was developed at the beginning of 2021 to aid in the conservation and protection of Indigenous marine and coastal environments. The IPA program covers the Gunditjmara area from the Convincing Ground to the Yambuk Lakes and provides further protection of the Budj Bim landscape as well as opportunities for Indigenous employment, documentation of traditional knowledge and sea management (DCCEEW 2022)

The Lake Condah mission was opened in 1867 in response to the displaced Gunditj Mara after the Eumerella wars (Budj Bim Cultural Landscape 2023). The Eumerella wars lasted over 20 years, beginning in the mid 1830s to the 1860s, starting over disagreements in ownership of land in southwest Victoria. The Dhauwurd wurrung people (apart of Eastern Maar country) refused to settle at the mission in Framlingham, so the Lake Condah mission was established, where they farmed and learnt to read and write English. The mission was strategically position to both house eel trapping facilities and have a view of the Budj Bim Reserve. In 1918, the mission was formally closed, and some of the Gunditj Mara were moved to other missions, such as the Lake Tyers Mission, while others refused to leave country. In 1987, the land on which the mission was situated on was given back to the Gunditj Mara (Budj Bim Cultural Landscape 2023).

Gunditj Mara hold strong cultural connections to sea country (Nyamat Mirring), and Nyamat Mirring features heavily in the Dreaming and creation stories of the Gunditj Mara. The Gunditj Mara believe that after the initial eruption of the creator spirit, Budj Bim, out of a volcano, the spirits movement throughout the landscape created the surrounding landscapes and their features. The lava flow from this

eruption caused the creation of the wetlands found within the Gunditj Mara landscape. In the traditional funeral rites of the Gunditj Mara people, bodies are bundled in grass and laid into the ground with their heads pointing towards Deen Maar (Lady Julia Percy Island). This is due to Deen Maar having a cave called Tarn Wirrung, which is thought to be the beginning of the passage towards the afterlife. Once the bodies were buried, if grass grew at the mouth of the cave, it was thought that the spirit had made it to the island, and into the realm of the clouds

Deen Maar (Lady Julia Percy Island) is the point where two creator deities, Punjil and Pallian left this earth. Pallian was the creator deity of the sea and fish and the governor of the oceans (after William Thomas, Letters from Victorian Pioneers, in National Oceans Office 2003:12). This island holds and creation story holds significance for both the Gunditjmara and Eastern Maar.

Significant locations of conflict are also located on the coast, including the massacre of Gunditj Mara at Convincing Ground, east of Portland. The Convincing Ground Massacre occurred at Allestree, approximately 10km from Portland, where Kilcarer Gundidj, Gundtij Mara people were killed by whalers over a disagreement about the ownership of a beached whale(VHR n.d.). The suggested dates for this massacre are between 1833 and 1834, with an unknown number of Indigenous peoples being killed(VHR n.d.).

2.6.2 Primary Traditional Owner Area - Eastern Maar

The Eastern Maar RAP group covers the area including Port Fairy and Warrnambool, down to Apollo Bay, east to Lorne and northwest towards Ararat. The RAP area of Eastern Maar also extends 100 meters off the coast and therefore encompasses the Twelve Apostles.

Eastern Maar is an umbrella term, used to describe a large area of land containing many, smaller traditional owner groups, such as Maar, Eastern Gunditgimara, Tjap Wurrung, Peek Whurrong, Kirraw Whurrung, Kuurn Kopan Noot. Yarro waetch and many others.(Eastern Maar Aboriginal Corporation 2020)

In 1865 the first Aboriginal mission was formed in the Western District at Framlingham in Girai wurrung country, north-east of Warrnambool. Aside from the Dhauwurd wurrung clans who moved to the Lake Condah mission in the 1860s, other Indigenous people were removed to the Framlingham Aboriginal Mission, which was gazetted as a 'temporary reservation for the use of Aborigines' (Barwick 1979: 4).In this mission the Eastern Maar people continued both cultural and spiritual traditional practices. In 1867 and 1899 the mission was meant to close down, and the Eastern Maar people were expected to move into the Lake Condah mission. Again, in 1916, the Eastern Maar people were expected to move into missions within Gippsland Victoria. All three times, the people refused to move and were successful in staying on country. During the 1970's, Eastern Maar were granted ownership of the land, including 586 acres of the original mission (Lawler, Oataway, & Berelov 2016).

Eastern Maar's connection to water relies heavily in the marine resources, abundant around the area. Fishing practices are still used today with the fishing and collection of eels, perch, blackfish, yabbies, abalone, cockles and crayfish (Eastern Maar Aboriginal Corporation 2015, p. 9). The techniques used in eeling have been passed down for generations, meaning the practices used today are techniques and skills traditional owners were using to eat and to trade (Eastern Maar Aboriginal Corporation 2015, p. 9). Shell middens are an important archaeological site to the Eastern Maar, where they take time to teach others about the importance of culture and preservation and management of sea resources (Eastern Maar Aboriginal Corporation 2015, p. 9).

> *When Maar citizens visit places with archaeological sites, we take time to teach our young ones about what they mean in terms of our history and culture. For example, our ancestors left many ancient middens along the coast which continue to tell a story about our Country - how the coastline and estuaries fluctuated, how and when our ancestors used the resources along the coast, what was harvested from out in the open ocean, how climatic conditions changed over time, where the meeting places were and ceremonies took place. This type of cultural*

learning helps develop empathy for Country; a deeper understanding on a societal scale of what Country means to us as a nation. We always pay our respects…(Eastern Maar Aboriginal Corporation 2015, p. 9)

Through Country, Eastern Maar People connect with their ancestors who are associated with different water systems within the landscape (Eastern Maar Aboriginal Corporation 2015, p. 9):

> *We believe that the spirits of our dead reside in our waterways and water bodies, and that they use animate and inanimate objects to move through Country. The signs they reveal to us are an important part of the interaction with our Ancestors – engaging, guiding, informing and warning us. When our citizens die, they are often buried with their bodies facing towards Deen Maar (Island). A story associated with Deen Maar Island is that the spirits go first to Deen Maar and then up to the stars, as Bunjil had done. A star falling or lights flying through the sky is a sign that the spirit is going over.*
>
> *Sea Country Maar citizens have always had a close connection with the sea and its resources, which were central to our culture, economy and survival. The ocean nourished our Ancestors and we still rely on it for our survival. Abundant middens along the coastline tell a rich story of our past. The coastline is home to sites that are important for our Dreaming - Three Sisters Rocks and Deen Maar (Lady Julia Percy Island) where our Ancestors leave the earth. Our connection with our Sea Country extends well beyond the current shoreline to the edge of the continental shelf. While this area is under the sea today, we occupied it for thousands of years and rising sea levels have not washed away the history, physical evidence or our connection.*(Eastern Maar Aboriginal Corporation 2015, p. 13)

2.6.3 Secondary Traditional Owner Area - Wadawurrung

Aboriginal groups mapped natural features as boundaries for their ranges, estates and economic territories. The Wadawurrung held land along the coast from Painkalac Creek at Aireys Inlet, east into Port Phillip Bay and to the Werribee River and to the north as far as Mt Emu and Fiery Creeks (Clark 1990).

Little is known about the Wadawurrung and their social organisation as they were one of the first Aboriginal groups within the region to be affected by European settlement in the area (Clark 1990). However, the Wadawurrung RAP organisation has traced its people's lineage to that of the seven families of John Robinson who was born in 1846 and passed in 1919 (WTOAC 2019).

During the summertime months, Wadawurrung along with Djab wurrung, Dhauwurd wurrung and girai wurrung language groups gathered at Mirraewuae swamp for ceremony and hunting. In early autumn the *Wada wurrung* would meet with Girai wurrung at Lake Bolac with local Djab wurrung named groups to take advantage of the migratory eels. The Wadawurrung participated in trade meetings at Terang, trading axe's and adhesive gum.

The coastal Wadawurrung first came into contact with settlers around the early 1800s when John Murray and William Flinders surveyed part of Indented Head. By the end of 1836 sheep runs were endemic around Geelong for an approximate 40.2 kilometre radius. The following year, settlers began to spread westward towards the Colac district.

An important figure in the history of Wadawurrung country was an escaped convict named William Buckley. The Wadawurrung balug first encountered Europeans in 1832 when William Buckley, escaped from the failed Sorrento settlement in 1803. Buckley was adopted by the Wadawurrung balug and spent the next 32 years with them; taking part in their customs, learning the language as well as hunting gathering techniques (Clark 1990). Buckley's story was recorded by John Morgan in 1852. From Buckley's accounts it was recorded that the Wadawurrung balug would catch eels at Lake Modewarre and would spend time on the hunting ground of the neighbouring Bengalat bulluck. According to Buckley the clan was at odds with the Bun wurrung, Woi wurrung and Daung wurrung clans (Clark 1990).

2.6.4 Secondary Traditional Owner Nations Area - Bunurong

The land encompassing the eastern side of the study area, as mapped by Clark (Clark 1990), is held by the Boon Wurrung language group, commonly associated with the Bunurong people. Boon Wurrung land occupied the coastal area from the Werribee River to Anderson Inlet, Phillip Island and probably beyond to Wilsons Promontory (Horton & Morris 1983, p. 44). The Bunurong RAP group covers the Mornington Peninsula (such as Rosebud and Frankston), Western Port (French Island, Phillip Island and San Remo) and the eastern most part of South Gippsland (Warragul down to Leongatha)(BLCAC 2023).

The Bunurong group is loosely divided into smaller clan or family groups, named for the area they associated with (Gaughwin & Sullivan 1984, p. 85). Barwick (1984, pp. 117–118) identified six clans: the *Burinyung-balluk* from Point Nepean and Cape Schanck, the *Mayone-bulluk* associated with the Carrum swamp, Cranbourne and the northern part of the Mornington Peninsula, the *Ngaruk-willam* associated with the Brighton area and Mordialloc, the *Yallock-bulluk* (most relevant to the study area) associated with the eastern side of Bass River and Tooradin, the *Yallukit-willam* associated with the area now called St Kilda and a broader region from the Werribee River to Mordialloc, the *Yowengherra* occupying the Tarwin River area. Thomas distinguished between the Bunurong people from Port Phillip and those of Western Port, though he rarely had contact with the Bunurong people on the eastern side of Western Port Bay (Sullivan 1981, pp. 16–9, Clark 1990). The Yallock-Bulluk Bunurong group are the most likely to have lived and associated with San Remo and Phillip Island area. The moiety of the Yallock-Bulluk named group is Bunjil, commonly associated with the Phillip Island area.

People were likely to have moved between the interior in winter and the coast in the summer. Movement was made up of many small distances (c. 10 km per day) punctuated by camps of one to three nights and occasionally longer stays of eight to ten days (Sullivan 1981). Social activity involving neighbouring named or socio-dialectical groups was usually held in warmer periods, held at the intersection of group boundary's and arranged by a person assigned of the responsibility of travelling between groups to organise the time, place, and events of the meeting.

An important figure in the history of Bunuroung country was an Indigenous man named Derrimut. Derrimut was the *arweet* the *Yalukit Willam* group at the time of European settlement of the region (Clark 1990, pp. 368–9). His name, Derrimut (derrimart/derremot), is believed to mean 'to hunt' or 'to pursue' in the language of the *Yalukit Willam* (Clark 2005, p. 1), Derrimut was a prominent figure in both the Indigenous and European histories of early Melbourne, and historical and contemporary views of his status vary. William Buckley, an escaped convict who lived with the Wadawurrung people of the Geelong region, considered him a 'traitor' who should be speared for divulging impending attacks to European colonists (Clark 2005, pp. 109). Clark (2005) considers Derrimut a 'culture-broker' who sought to navigate the newly imposed political context of colonial Victoria by forging relationships with prominent early European Melbournians including John Pascoe Fawkner and William Thomas, who held Derrimut in high regard (Clark 2005, pp. 111). In 1849, Derrimut and other members of the *Yalukit-Willam* agitated for the establishment of the Mordialloc Reserve, and when it was later divided for sale in 1863, Derrimut used his European connections to angrily protest its sale (Clark 2005, pp. 116).

Bunurongs use of water-based resources is evident in the quantity of shell midden sites found along the coastline. Within the study area and the bounds of the Bunurong RAP group, there are a total of 677 registered shell midden sites, within two hundred meters of the shoreline. This suggests knowledgeable exploitation of marine resources as practiced techniques and an understanding of the ocean would be needed to accumulate the amount of shell middens listed on Bunurong country.

2.6.5 Secondary Traditional Owner Area - Gunaikurnai

The Gunaikurnai RAP group covers most of the Gippsland Area, spanning from Warragul and Noojee, down to Port Albert and Port Welshpool, eastward towards Bairnsdale, Lakes Entrance and Marlo, and north towards Omeo and Hotham Heights

The Gunaikurnai believe in strong connections between land (Wurruk), water (Yarnda) and air (Watpootjan) and how these connections support living things. The Gunaikurnai see no separation of land and water, combining the two to represent whole country and therefore, demonstrate the same levels of importance to both land and sea. Due to this definition of country, both land and ocean receive the same amount of protection and management(GLWAC 2023a).

Throughout Gunaikurnai country, there are multiple sites that detail Indigenous relation to country and resource exploitation. One site that displays local resource exploitation is the recently excavated cave near Mitchell River, Raymond Creek 2 Rock Shelter, that provides evidence of using mussel shell tools and localised resource gathered through fishing(Monash University & GLWAC 2019).

The Buchan Caves Reserve is an example of the spiritual and physical relation to country that the Gunaikurnai people share. At this site in Eastern Victoria there are registered indigenous burials located in and around the cave system, creating a spiritual space within the landscape. In conjunction to the sacred burials, the site was already known to be a great place of connection as it played an integral role in the migrating patterns of the Gunaikurnai travelling through the mountains (GLWAC 2023b).

The area surrounding Buchan Caves Reserve is also considered special to country, with several other caves being recognized as having cultural meaning. One such cave is Cloggs Cave, located southeast of Buchan Caves Reserve, having an undisturbed cultural sequence, that could prove indigenous settlement in the Late Holocene and holds evidence of megafauna that challenge the idea of megafaunal extinction being caused by the LGM(GLWAC 2023a, David et al. 2021, GLWAC 2023b)

2.6.6 Primary Traditional Owner Area – Palawa (Tasmania)

Prior to European colonisation, the Tasmanian landscape was delineated by socio-dialectical groups based around clan or family groups identified as owning areas of land, which formed larger amalgamations based on shared common language, economic and social interests. These larger amalgamations are referred to as Nations by early ethnographer George Robinson (see below).

During the winter months, groups would usually be located on their coastal home ranges targeting shellfish and waterfowl resources such as swans and swan eggs. During spring and summer the groups move further west inland, hunting game with targeted burns (Ryan, 2012, pp. 17-19). While some clans in resource rich areas would not always seasonally migrate, but take advantage of local resources all year round, they would however travel as required for ceremonial events in neighbouring clan and nation territory as required (Ryan, 2012).

According to Jones (1974), Tasmanian Aboriginal society pre colonisation consisted of three social units. These generally consisted of the hearth group, the band and the Tribe (Jones 1974; Ryan 2012). The hearth group was described as being the family unit, and consisted of a man, woman, any children, grandparents and aged family or relatives (Plomley 1983). It is believed that this group ranged from between two to eight people (Jones 1974: Plomley 1983).

> *There were nine individuals in this family, and clearly they represented a hearth group, because Peron visited their campsite with its single hut. The group comprised an older man and wife, a younger man and wife, and five children, one a daughter (Oure-Oure) of the older man and wife, and the other four the children of the younger man and wife. (Plomley 1983:168).*

The band was considered to be more similar to a 'social unit'. This ranged from a number of hearth groups, that was defined by geographic boundaries (Jones 1974:324-325). Brown (1986:21) further notes that according from ethnographic reference from the period, the band was generally led by an older man who was know for their success as a hunter and fighter. Brown (1986:21) also believes that the band was exogamous, with the wife generally moving to her husband's band and hearth group. Each of these bands were then associated with what could be called a 'political' unit (Jones 1974:328-329):

> *...that agglomeration of bands which lived in contiguous regions, spoke the same language or dialect, shared the same cultural traits, usually intermarried, had a similar pattern of seasonal movement, habitually met together for economic and other reasons, the pattern of whose peaceful relations were within the agglomeration and of whose enmities and military adventures were directed outside it. Such a tribe had a territory, consisting of the sum of the land owned by its constituent bands ... The borders of a territory ranged from a sharp well defined line associated with a prominent geographic feature to a broad transition zone.*

Ryan (2012:14) hypothesises that the population of Tasmania was associated with a broad network of nine Tribes, each consisting of six to 15 bands. Ryan (2012:14) estimates that at by the time of European colonisation, the population of each group was around 350 and 800 people, where the overall population of Tasmania is estimated at being 3000-8000 people.

The first European interactions within Tasmania occurred in 1642 when Abel Tasman stayed a shot time at anchor near modern day Dunalley, and noted that people inhabited Tasmania, but never saw any of the Tasmanians (Plomley 1983:160). Marion du Fresne was to anchor for four days in Marion Bay on 1-10 March 1772, some one hundred and thirty years later (Plomley 1983:160). He is known to have visited the mainland shore close to the anchorage here, as well as Maria Island. Tobias Furneaux anchored in Adventure Bay from 10-15 March 1773, and later James Cook was there from 26-30 January 1777 and William Bligh on 20 August 1788 (Plomley 1983:160). John Henry Cox anchored in now Cox Bight and Oyster Bay between 3-11 July 1793. William Bligh made a second visit from 9-22 February 1792, and John Hayes was anchored in the Derwent from 26 April to 9 June 1793, however, records of this long visit no longer exist (Plomley 1983:160). George Bass and Matthew Flinders circumnavigated Tasmania between October 1798 and January 1799, where the last European visitation to Tasmania before colonisation at Risdon Cover in 1803 was that of the Baudin Expedition of 1802 (Plomley 1983:160).

Lieutenant John Bowen's occupation at Risdon Cove in 1803, which would have occurred in Moomairremener territory, represents the first permanent European settlement of Tasmania. This location lies in a key route between the Big River Nation's kangaroo hunting grounds to the northwest and rich shellfish grounds of the Oyster Bay Nation such as the study area and Coal River estuary to the west. The Risdon settlement soon encountered travelling bands of Big River and Oyster Bay Nation, with both Europeans and Tasmanian Aboriginal People being initially shocked at the arrival of each other. The initial European reaction was very hostile and soldiers fired upon Big River and Oyster Bay Nation people several times within the first five months of occupation, with the Risdon massacre of a group of Big River Nation people occurring on the 3 May 1804.

From 1807 to 1813, incoming settlers from Norfolk Island began to settle the southeast coast which led to direct confrontation with the Oyster Bay Nation (Ryan, 2012, p. 62). Early European settlement in Tasmania struggled with reliable food supplies and Europeans were often in direct competition with Aboriginal hunters for kangaroo and emu meat. By 1818 the Moomairremener clan had suffered heavily from conflict with Europeans and survivors either moved to other Oyster Bay or Big River clans to continue resistance, or tried to remain on their familiar territories with some reliance on charitable assistance from European settlers. Conflict continued to escalate between 1823 and 1828 before Aboriginal resistance in the 'settled areas' was quashed around 1830 with the surrender of Mannalargenna, a key Oyster Bay chief and resistance fighter (Ryan, 2012). Twenty three Oyster Bay and Big River survivors of the conflict would eventually follow Robinson to Flinders Island.

With the removal of the Tasmanians to Flinders Island by George Augustus Robinson after the ill-fated Black Line military operations in the state, population of the Tasmanian Aboriginal people decreases, and associations with different geographical areas of Tasmania were lost. When the Tasmanian Aboriginal people returned to the mainland to Oyster Cove, many of these survivors were not allowed back into their traditional areas where they were born, or where their family had resided for generations.

Today, coastal sites generally consist of midden sites, however, significant stone quarries, rock art, and former hut depressions and camp site can still be located. These sites show a seasonal exploitation of the coastal areas (Brown 1991; Jones 1977). The recording of bark canoes by early explorers shows that the Tasmanians did have a rich maritime tradition, however, many of these were used to access smaller off shore islands, not the larger islands of Bass Strait, or to the main land of Australia (Jones 1977).

2.7 Conclusion

Aboriginal communities in Victoria and Tasmania continue to be present and vibrant, and maintain strong connections to their traditional lands, waters, and their cultures. Each group is distinct and hold different systems of belief, connection, ceremony, language and lore and cultural practice. Each group hold traditional ecological knowledge of plants, animals and land management passed down through generations.

Aboriginal communities continue to practice traditional hunting, fishing, and gathering, and have a deep understanding of the environment around them. They also have a spiritual connection to the land and sea. Aboriginal people and representative bodies in Victoria and Tasmania have become more active in conservation, land and heritage management, working to protect and restore their traditional lands and waters, and to ensure that their cultural heritage is respected and protected.

> *Coastal environments in south-eastern Australia are rich in cultural sites. These include archaeological sites, such as shell middens and stone quarries, as well as "natural" sites, such as headlands, river mouths, reefs and islands. These sites have continuing cultural meaning because of their connection with Creation Stories, Dreaming Tracks, ceremonial places, camping places and massacre sites. Many of these places are listed on the Register of the National Estate, others are recorded in State-based heritage registers, while many others are known only to Indigenous people themselves and are not formally recorded...*
>
> *Protecting this cultural heritage is a major concern for Indigenous people. (National Oceans Office 2002:4).*

This Cultural Heritage Desktop Assessment explores the cultural heritage background for the region, provides a summary of available information in order to provide the project with a grounding in the cultural heritage of Aboriginal people in the study area.

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4 Glossary of Terms

The glossary provides definitions of various archaeological and heritage related terms.

Heritage place: A place that has aesthetic, historic, scientific or social values for past, present or future generations – ' ...this definition encompasses all cultural places with any potential present or future value as defined above' (Pearson & Sullivan, 1995, p. 7).

Aboriginal place: Aboriginal place is defined under Section 5 of the *Aboriginal Heritage Act* 2006 as follows:

5 What is an Aboriginal place?

(1) For the purposes of this Act, an Aboriginal place is an area in Victoria or the coastal waters of Victoria that is of cultural heritage significance to the Aboriginal people of Victoria.

(2) For the purposes of subsection (1), *area* includes any one or more of the following—

(a) an area of land;

(b) an expanse of water;

(c) a natural feature, formation or landscape;

(d) an archaeological place, feature or deposit;

(e) the area immediately surrounding anything referred to in paragraphs (c) and (d), to the extent that it cannot be separated from the thing without diminishing or destroying the cultural heritage significance attached to the thing by Aboriginal people;

(f) land set aside for the purpose of enabling Aboriginal human remains to be re-interred or otherwise deposited on a permanent basis;

(g) a building or structure.

Alluvial terrace: a platform created from deposits of alluvial material along river banks.

Angular fragment: a piece of stone that is blocky or angular, not flake-like.

Archaeology: the study of the remains of past human activity.

Artefact scatter: a surface scatter of cultural material. Aboriginal artefact scatters are defined as being the occurrence of five or more items of cultural material within an area of about 100 square metres. Artefact scatters are often the only physical remains of places where people have lived camped, prepared and eaten meals and worked.

Backed piece: a flake or blade that has been abruptly retouched along one or more margins opposite an acute (sharp) edge. Backed pieces include backed blades and geometric microliths. They are thought to have been hafted onto wooden handles to produce composite cutting tools. Backed pieces are a feature of the 'Australian small tool tradition', dating from between 5,000 and 1,000 BP in southern Australia (Holdaway & Stern, 2004).

Blade: a flake at least twice as long as it is wide.

Burial place: usually a sub-surface pit containing human remains and sometimes associated artefacts.

Contact place: see 'Aboriginal historical archaeological place'.

Core: an artefact from which flakes have been detached using a hammerstone. Core types include single platform, multi-platform and bipolar forms.

Cortex: original or natural (unflaked) surface of a stone.

Cortical: refers to the cortex.

Flake: a stone piece removed from a core by percussion (striking it) or pressure. It is identified by the presence of a striking platform and bulb of percussion, not usually found on a naturally shattered stone.

Flaked piece: a piece of stone with definite flake surfaces, which cannot be classified as a flake or core.

Formal tool: an artefact that has been shaped by flaking, including retouch, or grinding to a predetermined form for use as a tool. Formal tools include scrapers, backed pieces and axes.

Geocentric Datum of Australia 1994 (GDA94): a system of latitudes and longitudes, or east and north coordinates, centred at the centre of the earth's mass. GDA94 is compatible with modern positioning techniques such as the Global Positioning System (GPS). It supersedes older coordinate systems (AGD66, AGD84). GDA94 is based on a global framework, the IERS Terrestrial Reference Frame (ITRF), but is fixed to a number of reference points in Australia. GDA94 is the Victorian Government Standard and spatial coordinates for excavations, transects and places in CHMP documents.

Geometric microlith: a small tool that has been fashioned from breaking apart a microblade. The piece is then retouched or backed and a small tool formed.

Grindstones: upper (handstone) and lower (basal) stones used to grind plants for food and medicine and/or ochre for painting. A handstone sometimes doubles as a hammerstone and/or anvil.

Hearth: usually a sub-surface feature found eroding from a river or creek bank or a sand dune - it indicates a place where Aboriginal people cooked food. The remains of a hearth are usually identifiable by the presence of charcoal and sometimes clay balls (like brick fragments) and hearth stones. Remains of burnt bone or shell are sometimes preserved within a hearth.

Isolated artefact: the occurrence of less than five items of cultural material within an area of about 100 square metres. It/they can be evidence of a short-lived (or one-off) activity location, the result of an artefact being lost or discarded during travel, or evidence of an artefact scatter that is otherwise obscured by poor ground visibility.

Manuport: foreign fragment**,** chunk or lump of stone that shows no clear signs of flaking but is out of geological context and must have been transported to the place by people.

Map Grid of Australia (MGA): The official coordinate projection for use with the Geocentric Datum of Australia 1994 (GDA94).

Mound: these places, often appearing as raised areas of darker soil, are found most commonly in the volcanic plains of western Victoria or on higher ground near bodies of water. The majority were probably formed by a slow build-up of debris resulting from earth-oven cooking; although some may have been formed by the collapse of sod or turf structures.

Percussion: the act of hitting a core with a hammerstone to strike off flakes.

Platform preparation: removal of small flake scars on the dorsal edge of a flake, opposite the bulb of percussion. These overhang removal scars are produced to prevent a platform from shattering.

Pre-contact: before contact with non-Aboriginal people.

Post-contact: after contact with non-Aboriginal people.

Quarry (stone/ochre source): a place where stone or ochre is exposed and has been extracted by Aboriginal people. The rock types most commonly quarried for artefact manufacture in Victoria include silcrete, quartz, quartzite, chert and fine-grained volcanics such as greenstone.

Rejuvenation flake: a flake that has been knapped from a core solely for the purpose of preparing a new platform and making it easier to get flakes off a core, as it reduces the angle between platform and core surface.

Retouch: a flake, flaked piece or core with intentional secondary flaking along one or more edges.

Rock art: 'paintings, engravings and shallow relief work on natural rock surfaces' (Rosenfeld, 1988, p. 1). Paintings were often produced by mineral pigments, such as ochre, combined with clay and usually mixed with water to form a paste or liquid that was applied to an unprepared rock surface. Rock engravings were made by incising, pounding, pecking or chiselling a design into a rock surface. Rare examples of carved trees occasionally survive.

Rock shelter: may contain the physical remains of camping places where people prepared meals, flaked stone, etc. They are often classed as a different type of place due to their fixed boundaries and greater likelihood of containing sub-surface deposits. Rock shelters may also contain rock art.

Scarred tree: scars on trees may be the result of removal of strips of bark by Aboriginal people e.g. for the manufacture of utensils, canoes or for shelter; or resulting from small notches chopped into the bark to provide hand and toe holds for hunting possums and koalas. Some scars may be the result of non-Aboriginal activity, such as surveyors' marks.

Scraper: a flake, flaked piece or core with systematic retouch on one or more margins.

Shell midden: a surface scatter and/or deposit comprised mainly of shell, sometimes containing stone artefacts, charcoal, bone and manuports. These place types are normally found in association with coastlines, rivers, creeks and swamps – wherever coastal, riverine or estuarine shellfish resources were accessed and exploited.

Significance: the importance of a heritage place or place for aesthetic, historic, scientific or social values for past, present or future generations.

Striking platform: the surface of a core, which is struck by a hammerstone to remove flakes.

Structures (Aboriginal): can refer to a number of different place types, grouped here only because of their relative rarity and their status as built structures. Most structures tend to be made of locally available rock, such as rock arrangements (ceremonial and domestic), fishtraps, dams and cairns, or of earth, such as mounds or some fishtraps.

Stratified deposit: material that has been laid down, over time, in distinguishable layers.

Transect: A fixed path along which one records archaeological remains.

Utilised artefact: a flake, flaked piece or core that has irregular small flake scarring along one or more margins that does not represent platform preparation.

APPENDIX M CONOCOPHILLIPS' HSE POLICY

ConocoPhillips

HEALTH, SAFETY AND ENVIRONMENT POLICY

Our Commitment

ConocoPhillips is committed to protecting the health and safety of everybody who plays a part in our operations, lives in the communities in which we operate or uses our products. Wherever we operate, we will conduct our business with respect and care for both the local and global environment and systematically manage risks to drive sustainable business growth. We will not be satisfied until we succeed in eliminating all injuries, occupational illnesses, unsafe practices and incidents of environmental harm from our activities.

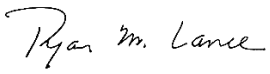
Our Plan

To meet our commitment, ConocoPhillips will:

- Demonstrate visible and active leadership that engages employees and services providers, and manage health, safety and environmental (HSE) performance as a line responsibility with clear authorities and accountabilities.
- Ensure that all employees and contractors understand that working safely is a condition of employment, and that they are each responsible for their own safety and the safety of those around them.
- Maintain “stop work” policies that establish the responsibility and authority for all employees and contractors to stop work they believe to be unsafe.
- Manage all projects, products and processes through their life cycles in a way that protects safety and health and minimizes impacts on the environment.
- Provide employees with the capabilities, knowledge and resources necessary to instill personal ownership and motivation to achieve HSE excellence.
- Maintain process, procedures and training to prepare for and respond to emergencies.
- Provide relevant safety and health information to contractors and require them to provide proper training for the safe, environmentally sound performance of their work.
- Measure, audit and publicly report HSE performance and maintain open dialogue with stakeholder groups and with communities where we operate.
- Comply with applicable regulations and laws.
- Work with both governments and stakeholders where we operate to develop regulations and standards that improve the safety and health of people and the environment.
- Maintain a secure work environment to protect ourselves, our contractors and the Company’s assets from risks of injury, property loss or damage resulting from hostile acts.
- Communicate our commitment to this policy to our subsidiaries, affiliates, contractors and governments worldwide and seek their support.

Our Expectations

Through implementation of this policy, ConocoPhillips seeks to earn the public’s trust and to be recognized as the leader in HSE performance.



Ryan Lance
Chairman and Chief Executive Officer
ConocoPhillips

APPENDIX N FAUNA MANAGEMENT PLAN

ConocoPhillips

Australia Business Unit

Otway Exploration Drilling Program

Fauna Management Plan

Revision Detail

Rev Number	Date
001	24 January 2024

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1. Introduction

1.1. Purpose

The purpose of this Fauna Management Plan (FMP) is to provide the details of the control measure (the FMP) required for Regulation 21(5)(c) of the Offshore Petroleum Greenhouse Gas Storage (Environment) Regulations (Environment Regulations). The FMP details how ConocoPhillips Australia (COPA) will carry out the Otway Exploration Drilling Program (the exploration program) in a manner by which the environmental impacts from anthropogenic underwater sound emissions and the risk of a collision to fauna will be reduced to as low as reasonably practicable and be of an acceptable level.

Prior to the drilling program commencing a Fauna Management Implementation Plan will be developed to facilitate the implementation of this FMP on the exploration program vessels and MODU.

Key policy and/or regulation informing the development of control measures for the FMP are the:

- Environment Protection and Biodiversity Conservation (EPBC) Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales.
- EPBC Regulations 2000 Part 8: Vessel and Operating Procedures.

This FMP will ensure that the Environmental Performance Outcomes (EPOs) from the Otway Exploration Drilling Program Environment Plan (EP) relevant to fauna will be achieved such that:

- EPO3: No death or injury (physical or auditory) to listed threatened or migratory species from the activity.
- EPO4: Biologically important behaviours (such as foraging, feeding and breeding) can continue while the activity is being undertaken.
- EPO9: Anthropogenic noise in biologically important areas (BIAs) will be managed such that:
  - Any blue whale (BW) (includes both pygmy and Antarctic blue whales) is not displaced from a foraging area, and continues to utilise the area without injury.
  - It does not prevent any southern right whale (SRW) from utilising the area or cause injury (temporary threshold shift (TTS) and permanent threshold shift (PTS)) and/or disturbance.

1.2. Scope

1.2.1. Aspects

This FMP is a control measure to manage impacts from the following operational aspects as detailed in the Otway Exploration Drilling Program EP:

- Interaction with marine fauna – risk of a vessel collision with fauna.
- Underwater sound emissions – **impulsive** sound associated with geophysical surveys (such as sub-bottom profiling) and formation evaluation (such as vertical seismic profiling).
- Underwater sound emissions – **non-impulsive** sound associated with vessels, mobile offshore drilling unit (MODU) transiting, MODU resupply (cargo transfer) and drilling.

1.2.2. Timing

This FMP applies at all times when the activities detailed in Section 1.2.3 are being undertaken in Commonwealth waters offshore of Victoria and Tasmania in the Otway Basin, and applies to vessel movements in State waters during vessel transit.

1.2.3. Activities

This FMP applies to the activities to be undertaken within the Operational Area detailed in COPA's Otway Exploration Drilling Program Environment Plan and specifically:

- Seabed surveys: geophysical acquisition using a range of techniques including sub-bottom profiling.
- MODU anchoring.

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- Exploration drilling: MODU and vessels.
- Formation evaluation using a range of tools including Vertical Seismic Profiling (VSP).
- Vessel transit to/from drilling areas and operational areas.

Each activity listed above will have an Activity Action Zone (AAZ) prescribed to it to meet EPOs 3, 4 and 9 detailed in Section 1.1. These actions and their AAZs are detailed in Sections 4, 5, 6 and 7.

1.2.4. Safety of Operations

At all times and without exception, safety to personnel, well integrity and vessel management takes priority over the requirements described in this FMP.

1.3. Assumptions

Important assumptions that have been made in the development of this FMP are listed below to make them explicit to users to assist in its interpretation and implementation. If an aspect of the FMP is unclear, users should consider these assumptions in determining what action, if any, to take. If an aspect of the FMP is still unclear advice should be sought from the ConocoPhillips Australia (COPA) Environment Officer prior to users determining what action, if any, to take

1) Vessel Masters, COPA Drilling Supervisor and COPA Environment Officer will work together to minimise impacts to whales as long as the safety of operations can be maintained.
2) Conservatism has been built into how the distances of the AAZ have been determined, taking account of sighting/detection accuracy, weather conditions, uncertainty in the activity impact assessment, and interpretation of whale behaviour.
3) Acoustic modelling was undertaken for a number of different locations for each activity and a number of different whale noise criteria (TTS, PTS, behavioural response). The AAZ distances are based on the furthest distance to the noise criteria from the acoustic modelling for each activity.

Every attempt has been made to limit ambiguity in the FMP content, however if there is a lack of clarity, or residual uncertainty about the instructions in this FMP users are required to take actions in a manner that manages noise threats to whales, is precautionary, and will ensure impacts and risks meet the EPOs detailed in Section 1.1.

1.4. Glossary of Acronyms and Terms

Acronym or Term	Description
AAZ	Activity Action Zone The area where action is required to be taken to meet the EPOs in Section 1.1.
Acoustic detection	Detection of whales via in water acoustic detection monitoring (ADM) on gliders or fixed buoys.
ADM	Acoustic Detection Monitoring
ALARP	As Low as Reasonably Practicable
Anthropogenic	Chiefly of pollution or environmental change originating from human activity.
BW	All blue whale sub-species, pygmy blue whales, and Antarctic blue whale.
Cetaceans	Whales and dolphins.
Detection	Detection of whales which may occur via MFO observation or via acoustic detection monitoring (ADM).
EP	Environment Plan
EPO	Environmental Performance Outcome
Feeding	Whale in the act of eating/consuming food.

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Acronym or Term	Description
FMP	Fauna Management Plan
Foraging	Whale searching for food.
MFO	Marine Fauna Observer
MODU	Mobile Offshore Drilling Unit
Policy Statement 2.1	EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales
PTS	Permanent Threshold Shift
Resupply	Transfer of cargo, bulk materials and bunkering from a vessel to the MODU.
SBP	Sub-bottom profiling
SRW	Southern right whale
TTS	Temporary Threshold Shift
VSP	Vertical seismic profiling
Whales	Toothed and baleen whales
FMP	Whale Management Plan

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2. Implementation

This section details the accountabilities and responsibilities for the implementation of the FMP and the reporting requirements.

2.1. Roles and Responsibilities

Figure 2-1 shows the COPA organisation structure relevant to the FMP with responsibilities for each role detailed in Table 2-1.

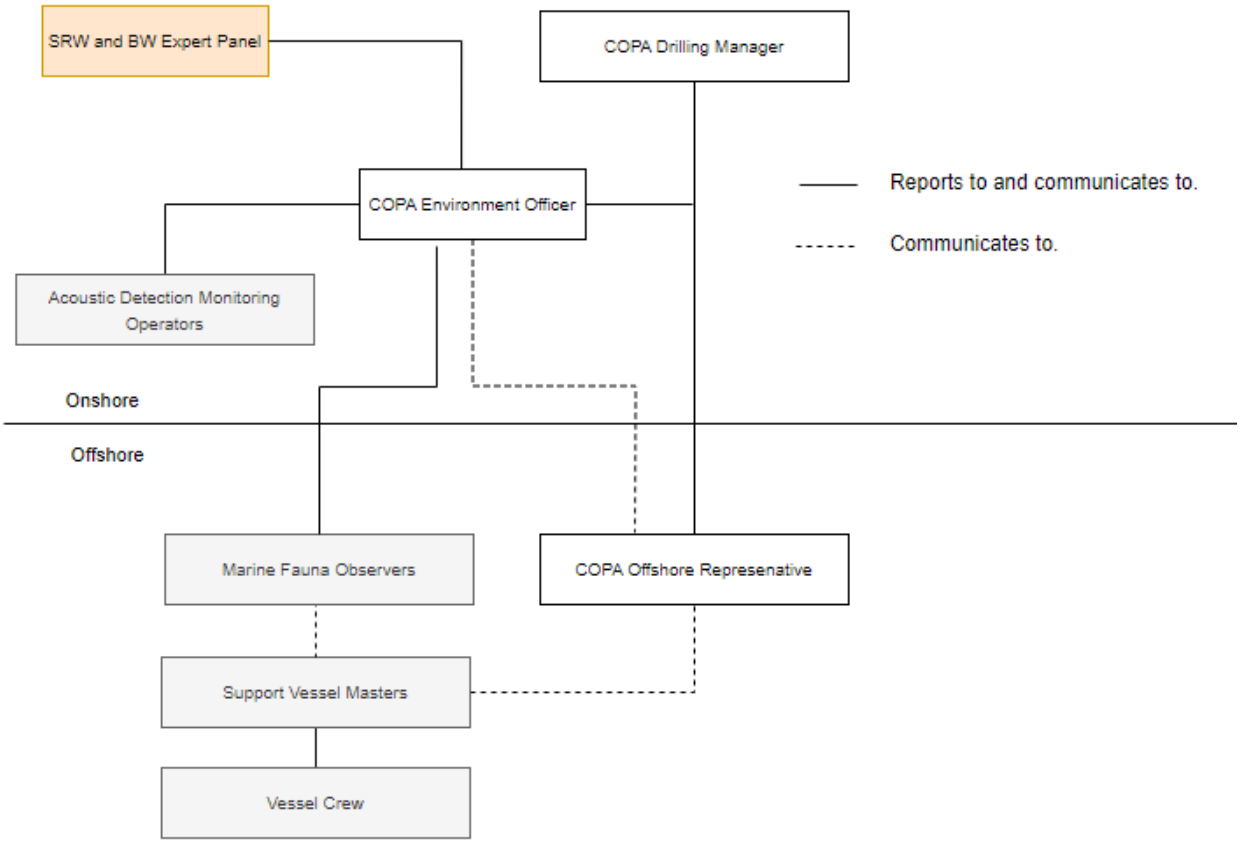


Figure 2-1: COPA Organisation Structure Relevant to the FMP

Table 2-1: COPA Roles and Responsibilities Relevant to the FMP

Role	Responsibilities
COPA Drilling Manager	Accountable for implementation of the FMP.
COPA Environment Officer	Coordinate the SRW and BW Expert Panel.
	Develop the FMP Implementation Plan with input from SRW and BW Expert Panel, COPA Offshore Representative, MFOs and ADM Operators.
	Ensure the requirements for the implementation of the FMP are in place prior to the commencement of the activities the FMP is applicable to.
	Develop training material (PowerPoint or video presentation) to communicate the requirements of the FMP to those who have responsibilities to implement the FMP. Ensure the activity-specific induction provides an overview of the FMP include whale observation and recording requirements.
	Coordinate and document the review of effectiveness and compliance with the FMP.

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Role	Responsibilities
	The review will be undertaken within one week of activity commencement and thereafter every four weeks while the activity is being undertaken.
	Review the MFO daily report to ensure sightings and actions meet the requirements of the FMP.
	Coordinate MFO and ADM observations/detections and provide advice to the COPA Offshore Representative of required actions.
	Develop daily FMP Report of MFO and ADM observations/detections and actions taken.
	Determine when aerial surveys are triggered and SRW and BW Expert Panel input required.
SRW and BW Expert Panel	Consist of a minimum of people: • SRW expert with experience with SRW in southern Australia. • BW expert with experience with BW in southern Australia. • Marine mammal expert with experience with whale observations/detections in southern Australia. • COPA representatives with experience and understanding of seabed survey and drilling operations, and EP requirements.
	Provide advice and recommendations on the FMP Implementation Plan.
	Determine: • When aerial surveys are required. • Objective of aerial surveys. • Flight path and observers.
	Provide advice to COPA in relation to actions to take when: • BW or SRWs detected in the Otway area. • Ongoing delays to start or restart of activity due to whales. • Activity cannot start or restart due to presence of whales i.e. > 12 hours.
COPA Offshore Representative (On MODU)	Maintain open communication with COPA Environment Officer.
	Communicate the status of the activities (i.e. commencing, underway, or at Safe Point) to COPA Environment Officer.
	Decide whether actions within the FMP can safely be implemented and take action accordingly.
	Document reasons for not following the FMP Plan, if required.
	Provide input into the review of effectiveness and compliance with the FMP.
Vessel Masters	Maintain open communication with COPA Offshore Representative and vessel based MFOs.
	Communicate the status of the activities (i.e. commencing, underway, or at Safe Point) to COPA Offshore Representative and vessel based MFOs.
	Decide whether actions within the FMP can safely be implemented and take action accordingly.
	Document reasons for not following the FMP, if required.
	Provide input into the review of effectiveness and compliance with the FMP.
	Provide records of FMP training and activity-specific environmental induction to COPA Environment Officer.
Marine Fauna Observers (MFOs) Acoustic Detection Monitoring	Provide input into the development of the FMP Implementation Plan.
	Undertake observations/detections and immediately report whale and other fauna (MFO only) observations/detections to the COPA Environment Officer.
	Provide advice to the COPA Drilling Supervisor and Vessel Master (or delegate) on the requirements of the FMP.
	Provide input into the review of effectiveness and compliance with the FMP.

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Role	Responsibilities
(ADM) Operators	Submit daily MFO Report to COPA Drilling Manager, COPA Offshore Representative, Vessel Master, and COPA Environment Officer.
All vessel and MODU crew	Undertake activity induction that provides an overview of the FMP.
	Communicate whale sightings to MFOs immediately, supported by relevant information where available (e.g. latitude and longitude, time of sighting, no. of whales etc).

2.2. Records and Reporting

Records and reporting relevant to the implementation of the FMP are detailed in Table 2-2 below.

Table 2-2: Records and reporting for FMP

Records and Reporting Requirement	Responsible	Reported to	Description
Pre-activity FMP implementation review	COPA Environment Officer	COPA Drilling Manager	Documentation and records of evidence to show that the FMP implementation requirements are in place prior to the commencement of the activities.
Vessel and MODU crew induction records	Vessel Master COPA Drilling Supervisor	COPA Environment Officer	Induction records.
MFO and ADM operator qualifications	COPA Drilling Manager	COPA Environmental Officer	Resume Training certificates
Communication of the FMP Implementation Plan to those who have responsibilities to implement the plan.	COPA Environmental Officer	COPA Drilling Manager	Signed record that roles responsible for implementation and actions in this plan have been read and understand.
Daily observation/detection reports.	MFO ADM Operator	COPA Environment Officer	Report detailing Report detailing marine fauna observations and whale detections.
Daily FMP Report	COPA Environmental Officer	COPA Drilling Manager COPA Offshore Representative	Report detailing marine fauna observations and whale detections and actions taken as per the FMP, and reasons actions not taken.
Review of effectiveness and compliance with the FMP	COPA Environment Officer	COPA Drilling Manager COPA Offshore Representative Vessel Master MFOs	Documentation and any actions from the review of effectiveness and compliance with the FMP.
End of Well / End of Program FMP Report	COPA Environment Officer	COPA Drilling Manager	Report detailing marine fauna sightings and whale detections, actions taken as per the FMP, and reasons actions not taken. COPA Environmental Officer to forward report on to relevant persons who requested access to this information (Implementation Strategy).
Sightings and detection data.	COPA Environment Officer	DCCEEW Australian Marine Mammal Centre	Spreadsheet including all applicable attributes requested by the DCCEEW Australian Marine Mammal Centre.

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3. Detection of Whales

3.1. Detection Methods

In the context of the Otway Exploration Drilling Program, it is acknowledged that there are inherent challenges in detecting whales. With their vast range of species, behaviours, and habitats, a multifaceted approach is required for detection. No single method can guarantee the detection of all whales, but by combining several complementary techniques across various platforms, it maximises the likelihood of accurate and early detection.

The array of whale detection methods to be used throughout the Otway Exploration Drilling Program are:

- Vessel marine fauna observers.
- Aerial surveys.
- Acoustic detection.

These detection methods are detailed below.

The detection of whales for the Otway Exploration Drilling Program requires a comprehensive and balanced approach. COPA recognises the complexities and uncertainties inherent in this task and acknowledge that no single detection method is perfect. Consequently, the use of multiple detection methods, enhances overall confidence in detecting whales, both above and below the water surface.

3.1.1. Vessel Marine Fauna Observers

MFOs conduct visual observations using binoculars and the unaided eye, primarily from the bridge of the vessel or, ideally, from a more elevated vantage point to detect whales during daylight hours.

Two MFOs will be stationed on the MODU support vessels whilst drilling and VSP activities are occurring.

For the geophysical survey, as the AAZ distances are significantly smaller than for drilling, one MFO will be stationed on the survey vessel to undertake observations for marine fauna during day light hours. This will be increased to two MFOs, where the geophysical survey spans more than five consecutive days at sea with over twelve hours of daylight to ensure the ongoing integrity of observations during extended daylight hours. When only one MFO is present on the survey vessel the vessel Officer of the Watch will support the MFO during breaks.

3.1.2. Acoustic Detection

COPA's whale detection strategy includes the integration of acoustic detection systems such as gliders or fixed buoys, that will have real time reporting of whale species and location. The system to be engage will be able to detect low-frequency whales such as BW and SRW.

Prior to deploying acoustic detection systems, they will be subjected to testing to validate their reliability. These tests will be specifically designed to confirm the systems' capability to detect whales, including those emitting low-frequency calls. However, it is acknowledged that the detection of marine mammals through acoustic means is contingent upon their vocalisation.

3.1.3. Aerial Surveys

Complementing vessel based MFO observations and acoustic detection monitoring, aerial surveys may be used where observation of the AAZ cannot be undertaken, and to provide a broader context regarding fauna and prey distribution. Noting that aerial surveys are only effective in conditions of light winds and fair to good visibility.

Aerial surveys will be overseen by the SRW and BW Expert Panel who will develop the objectives and flight path for the survey.

Experienced operators, with a proven track record of conducting aerial surveys for whales, particularly threatened species such as BWs and SRW in the waters offshore Victoria, will be contracted to

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undertake these aerial surveys. In collaboration with the SRW and BW Expert Panel, their expertise and knowledge of local whale populations is instrumental in supporting detection efforts.

Triggers for aerial surveys consist of:

- Directed by BW/SRW Expert Panel.
- To obtain information to inform decision making.
- Ongoing delays to start or restart of activity due to whale.
- Activity cannot start or restart due to presence of whales i.e. > 12 hours.

3.2. Whale Observation/Detection Area

The effectiveness of observation/detection efforts relies on the extent of the observation/detection area. The designated observation/detection area aims to be as extensive as practically feasible, encompassing, at a minimum, the AAZ delineated in each activity section. However, this area will be broadened whenever possible to ensure comprehensive coverage.

Determining the extent of the observation/detection area must consider the following factors:

Visual acuity decreases over distances greater than 6 km and in sea states greater than Beaufort 4, and with it the ability to confidently identify whale species unless key behaviours are displayed (e.g. breaching humpback whale).Other environmental factors e.g. fog, rain, haze, glare, will also affect visual acuity of observers.

- The level of confidence in making a species identification visually needs to be stated e.g. high-medium-low; particularly for sea states greater than Beaufort 4.
- The inherent limitation of the observation/detection platform i.e. height of observation platform above sea level, and structures on the platform that inhibit full visual coverage of the operational area.
- Noise generated by the acoustic detection platform i.e. glider or fixed mooring.

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4. Fauna Management Actions – Interactions between Vessels and Fauna

This section details the procedure and actions that will be implemented by vessels to ensure that interactions between vessels and fauna (whales, dolphins, seals, turtles, flocks of rafting birds) which may result in displacement of or injury, do not occur. Safe operation of the vessel must be considered/determined by the Office of the Watch prior to implementing any actions.

Figure 4-1 provides the actions to be implemented within the Drilling Area and Operational Areas, and during other vessel movements.

4.1. Activity Action Zone

The AAZ is the area where action is required to be taken to meet the EPOs in Section 1.1. For interactions between vessels and fauna, the AAZ is detailed in Table 4-1.

Table 4-1: Vessel AAZ

Activity/ Source	Action Zone Distance
Vessel movements	Whales - 500 m Dolphins, Turtles, Seals, Rafting Birds – 150 m
Justification for Action Zone Distance	
All vessels at all times must comply with the EPBC Regulations 2000 Part 8: Vessel and Operating Procedures, which stipulates a 300 m caution zone for whales and a 150 m caution zone for dolphins. COPA as detailed in CM02: Vessel and Operating Procedures, has increased the whale caution zone to 500 m for activities under this FMP. The increase in the caution zone allows for the potential for poor observation conditions (i.e. sea state greater than Beaufort 4) and potential encounters with cow/calf pairs at certain times of the year. The EPBC Regulations 2000 Part 8: Vessel and Operating Procedures of 150 m will be applied to dolphins. This distance will also be applied to turtles and rafting birds as it is feasible that they can be detected by MFOs at 150 m.	

4.2. Relevant Fauna Species

This procedure applies to all whale, dolphin, seal, turtle species, and flocks of rafting seabirds.

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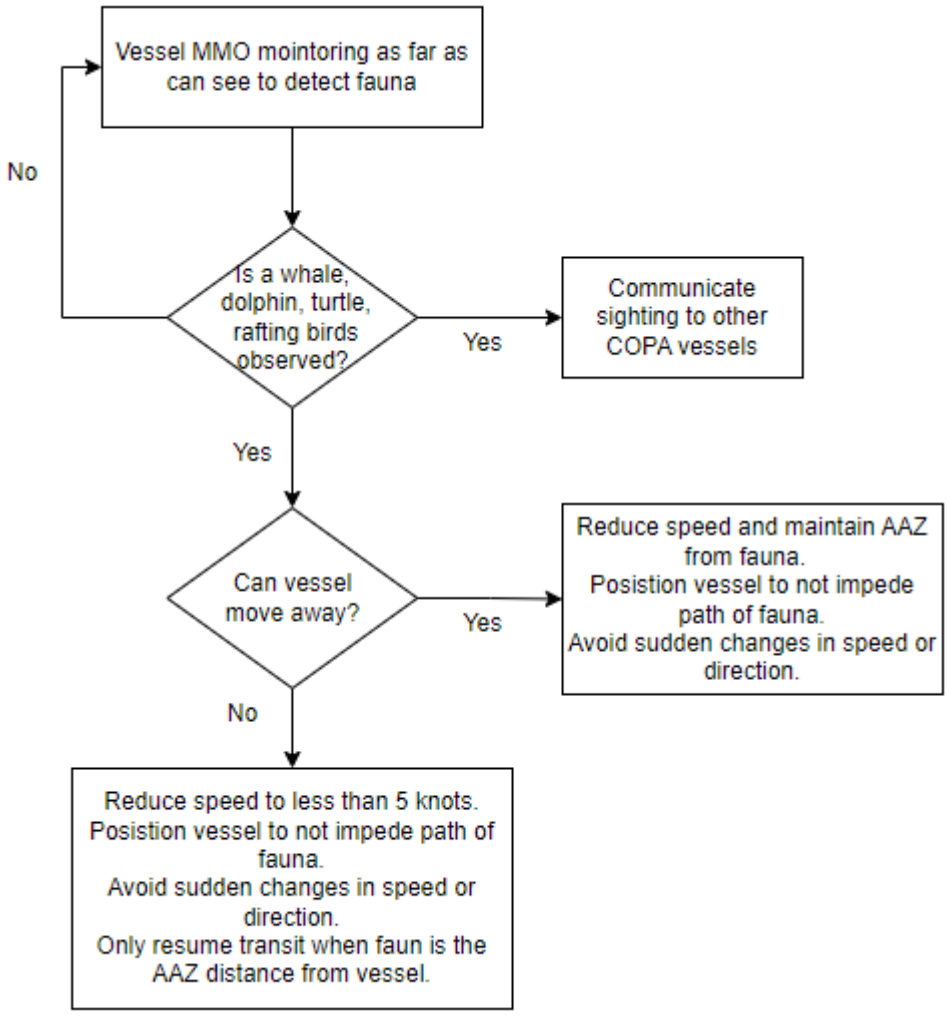


Figure 4-1: Fauna Management Actions – Vessel Fauna Interaction

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5. Whale Management Actions – Geophysical Survey

This section details the procedure and actions that will be implemented by vessels when undertaking a geophysical survey. Figure 5-1 provides the actions to be implemented.

Explanatory notes are detailed in the following sections.

5.1. Activity Action Zone

The AAZ is the area where action is required to be taken to meet the EPOs in Section 1.1. For geophysical surveys the AAZ is detailed in Table 5-1

Table 5-1: Geophysical AAZ

Activity/ Source	Action Zone Distance	PTS 24 hr	TTS 24 hr	Behavioural Response
Geophysical survey – sub bottom profiler (SPB)	500 m	Not reached	20 m	130 m
Justification for Action Zone Distance				
Based on the acoustic modelling for the sub-bottom profiler the furthest distance to each noise effect criteria for whales are used. The furthest distance is 130 m. However, CM02: Vessel and Operating Procedures detail that vessel will implement a caution zone of 500 m between whale and vessels. As the geophysical vessel is manoeuvrable, even when the geophysical equipment is in the water, the 500 m caution zone will be applied to geophysical surveys.				

5.2. Relevant Whale Species

This procedure applies to all whale species.

5.3. Pre-Activity Whale Observation Survey

Based on a 30-minute MFO visual observation of the AAZ preceding the activity commencement, the geophysical survey can commence if no whales are seen within or are likely to enter the AAZ.

30 minutes is considered sufficient time for the vessel and/or whale to have moved 500 m apart and to account for whales such as blue whales (BWs) that are capable of diving for periods up to 30 mins (see Appendix 1 for data). However, a foraging blue whale may not move at all if prey is in the vicinity.

5.4. During Acquisition

As the geophysical survey vessel is manoeuvrable, even when the geophysical equipment is in the water, the vessel will implement a caution zone of 500 m from all whales. If the vessel cannot move 500 m from a whale the SBP is to be shut down and only restarted when it is 500 m away from the whale.

5.5. Night-time Start Arrangements

SBP equipment will not be started at night if there have been three or more delays to the start-up of the equipment due to whales in the previous 24 hours.

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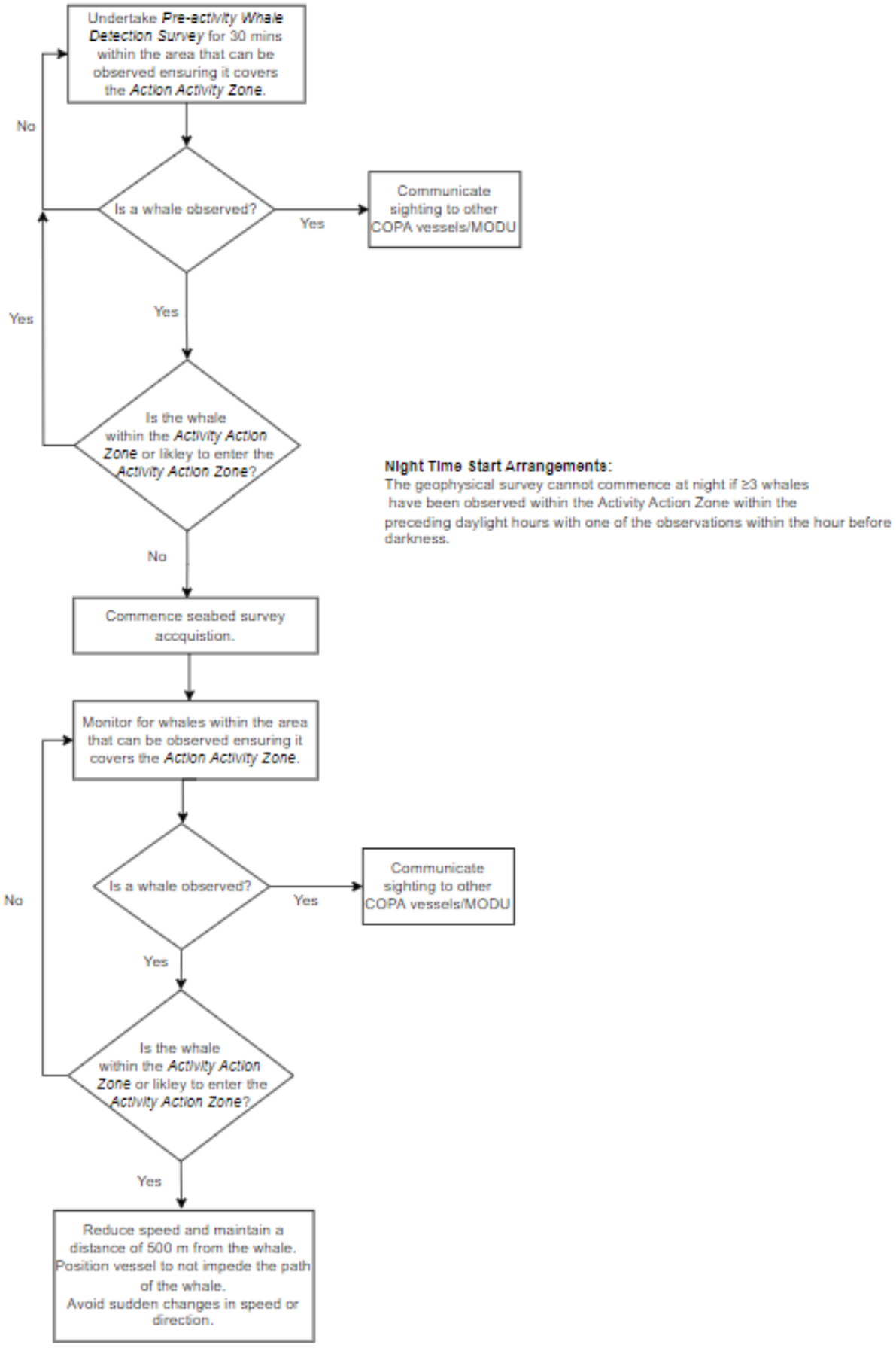


Figure 5-1: Whale Management Actions – Geophysical Survey

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6. Whale Management Actions – VSP

This section details the procedure and actions that will be implemented for VSP activities. Figure 4-1 provides the actions to be implemented.

Explanatory notes are detailed in the following sections.

6.1. Activity Action Zone

The AAZ is the area where action is required to be taken to meet the EPOs in Section 1.1. For VSP the AAZ is detailed in Table 6-1.

Table 6-1: VSP AAZ

Activity/ Source	Action Zone Distance	PTS 24 hr	TTS 24 hr	Behavioural Response
Vertical Seismic Profiling (VSP)	1.5 km all other whales April to end of October: 6.5 km SRW cow-calf pair	330 m	1.5 km	1.5 km all other whales 6.48 km SRW cow-calf pair
Justification for Action Zone Distance				
Based on the acoustic modelling for the VSP the furthest distance to each noise effect criteria for whales are used. COPA has applied a precautionary approach for SRW cow calf pairs applying a lower noise effect criteria hence the greater distance.				

6.2. Relevant Whale Species

This procedure applies to all whale species.

During April to the end of October it is likely that pregnant SRWs are moving through the migration BIA to the coastal reproduction BIA, and SRW cow-calf pairs are moving from the reproduction BIA. Thus, during this period detections for whales will be undertaken in the larger 6.5 km AAZ but actions will only be implemented for SRWs, or whales that cannot be confirmed not to be SRWs, within the 6.5 km AAZ. For all other whales actions will be applied within the 1.5 km AAZ. It is possible that SRWs may occur within the Otway area earlier than April or later than October, and how this will be managed is detailed in Section 6.7 Adaptive Management.

6.3. Observation and Detection

As detailed in Section 3, COPA will implement several whale observation and detection methods consisting of MFOs, ADM operators and aerial surveys. This approach ensure that detections can be undertaken within the VSP AAZs and provide additional information on the movement of SRW into and out of reproduction BIA and BW into and out of the Otway Region.

Timing of 30 minutes for pre-activity whale observation/detection surveys, soft starts and restarts, to identify if no whales are within the AAZ is based on Policy Statement 2.1 and considers deep diving species such as BW which have a typical dive time is less than 30 minutes (see data in Appendix 1).

6.4. Pre-Activity Whale Observation/Detection Survey

VSP can commence if no whales are observed or detected in the VSP AAZ within 30 min preceding the activity commencement.

6.5. Soft Start

For VSP, a soft start will be implemented after the Pre-Activity Observation/Detection Survey has confirmed that no whales are present within the VSP AAZ. The VSP soft start will be undertaken by gradually bringing on each acoustic source over a 30 min period.

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If a whale enters the VSP AAZ, the acoustic source will be shut down. The vessel MFO and ADM Operator will constantly monitor the whale and the soft start will be delayed and will only resume after the whale has been observed/detected to move outside the VSP AAZ, or when 30 min has lapsed since the last whale sighting.

6.6. Shutdown

If a whale is observed or detected within or is likely to enter the VSP AAZ, the VSP source will be shut down.

Power-up of the VSP source with soft-start procedures (over a 30-minute period) will only occur after the whale has been observed or detected to move outside the VSP AAZ Low power zone, or when 30 minutes have lapsed since the last whale sighting.

6.7. Night-time / Low Visibility Arrangements

VSP can continue at night or low visibility conditions:

- providing there have not been 3 or more whales observed/detected within the VSP AAZ during the preceding 24-hour period.

Three whales within the preceding daylight hours (i.e., sunrise to sunset) are seen as an indicator that whales may be migrating or foraging/feeding in the area and therefore could be present in the AAZ at night.

6.8. Adaptive Management

It is possible that SRWs may occur within the Otway area earlier than April or later than October. As drilling will be undertaken prior to VSP occurring, if SRWs have been observed 1 week prior to VSP operations outside of the April to end of October period, the actions within this section will be implemented within the 6.5 km AAZ.

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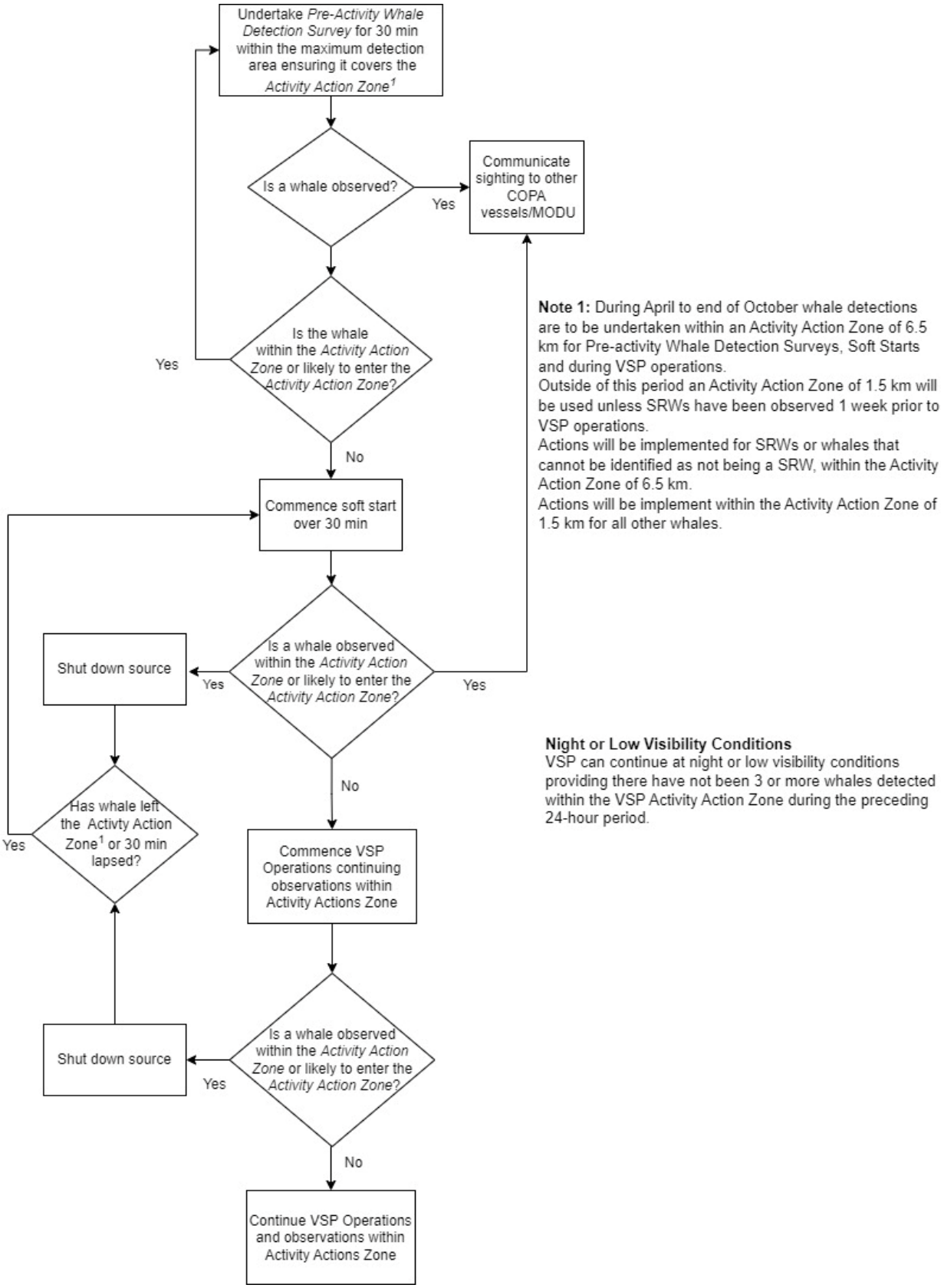


Figure 6-1: Whale Management Actions – VSP

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7. Whale Management Actions – Drilling

This section details the procedure and actions that will be implemented when drilling. Figure 7-1 provides the actions to be implemented.

Explanatory notes are detailed in the following sections with actions to be undertaken for each activity detailed in Table 7-2 to Table 7-5.

7.1. Activity Action Zone

The AAZ is the area where action is required to be taken to meet the EPOs in Section 1.1. These zones are different for different drilling activities and different drilling locations and are based on the furthest distance to the cetacean behaviour, TTS or PTS noise criteria from acoustic modelling, as presented in Table 7-1.

The acoustic modelling showed a dramatic difference in distances to the cetacean noise criteria for the shelf-edge location as noise propagates further into deepwater in the offshore direction. Figure 7-1 shows the location of the shelf-edge for the implementation of the Drilling AAZ in Table 7-1.

Due to the nature of the drilling activities, the activities cannot be immediately stopped as this would create operational safety risks. This procedure identifies 'safe points' where an activity can be stopped, and action taken to reduce noise levels. Table 7-1 details the safe points for each activity. Table 7-2 to Table 7-5 detail the actions to be taken for each activity.

Table 7-1: Drilling AAZ

Activity/ Source	Action Zone Distance	PTS 24 hr	TTS 24 hr	Behavioural Response	Safe Point
Anchor pre-lay	1.5 km	150 m	690 m	1.39 km	Anchor deployed
MODU mooring	13 km	320 m	3.6 km	12.2 km	MODU securely anchored.
Drilling with vessel on standby	2.5 km	30 m	460 m	2.44 km	Next positive test of well integrity (e.g., after cementing each casing)
MODU resupply (cargo transfer): • On shelf all directions • On shelf edge onshore direction	13 km	200 m	1.93 km	12.6 km	Resupply complete
MODU resupply (cargo transfer): • On shelf edge offshore direction	23 km	200 m	1.93 km	22.8 km	Resupply complete
Justification for Action Zone Distance					
Based on the acoustic modelling for the drilling activities the furthest distance to each noise effect criteria for whales are used.					

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7.2. Observation and Detection

As detailed in Section 3, COPA will implement several whale observation and detection methods consisting of MFOs, ADM operators and aerial surveys. This approach ensures that detections can be undertaken within the relevant Activity AAZs and provide additional information on the movement of SRW into and out of reproduction BIA and BW into and out of the Otway Region.

Timing of 30 minutes for pre-activity whale observation/detection surveys to identify if no whales are within the AAZ is based on Policy Statement 2.1 and considers deep diving species such as BW which have a typical dive time is less than 30 minutes (see data in Appendix 1).

7.3. Relevant Whale Species

As the drilling activities will be undertaken within BW and SRW biologically important areas (BIAs) and there is the possibility that fin, pygmy right and sei whales are also foraging/feeding in the area this procedure applies to these species. The procedure was identified as a control measure to ensure that the activity could be carried out in a manner by which the impacts to BWs and SRWs and other whales undertaking biologically important behaviours will be minimised to an acceptable level.

As the drilling activities will be undertaken within the PBW and SRW biologically important areas this FMP procedure for drilling was identified as a control measure to ensure that the activity could be carried out in a manner by which the impacts to PBWs and SRWs will be of an acceptable level.

As baleen whale such as BWs, SRWs, fin, pygmy right and sei whales can be hard to distinguish from other baleen whales the following will apply.

A BW, SRW, fin, pygmy right or sei whale is a whale that:

- Is confirmed to be a BW, SRW, fin, pygmy right or sei whale; or
- Is not confirmed to be another species.

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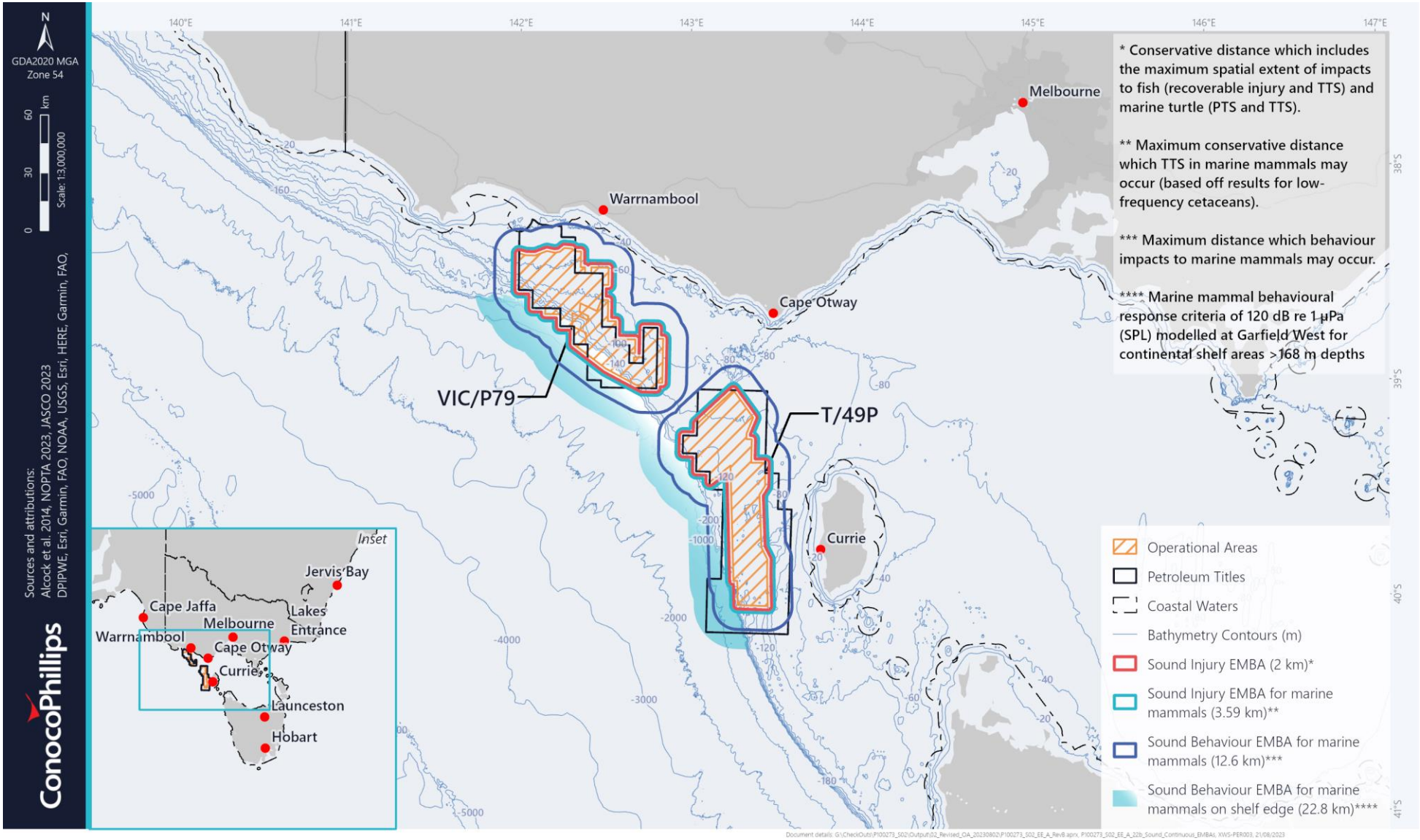


Figure 7-1: Continuous Sound EMBAs

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7.4. Pre-Activity Whale Observation/Detection Survey

Drilling activities can commence if no whales are observed or detected within or likely to enter the applicable AAZ within 30 min preceding the activity commencement.

7.5. Night-time Start Arrangements

Drilling activities can commence at night if no whales are acoustically detected within the AAZ.

7.6. Adaptive Management

A risk review will be undertaken if there are 3 consecutive days of BWs or SRWs sighted within the Drilling AAZ.

The risk review will be documented and will consider at a minimum:

- Increased duration of Pre-Activity Whale Observation/Detection Surveys.
- Increased no night-time activity trigger.
- If the MODU can move to a well location where less or no whales have been observed/detected. This may need to be informed by vessel or aerial surveys.
- If vessel or aerial surveys are required to detect whales.

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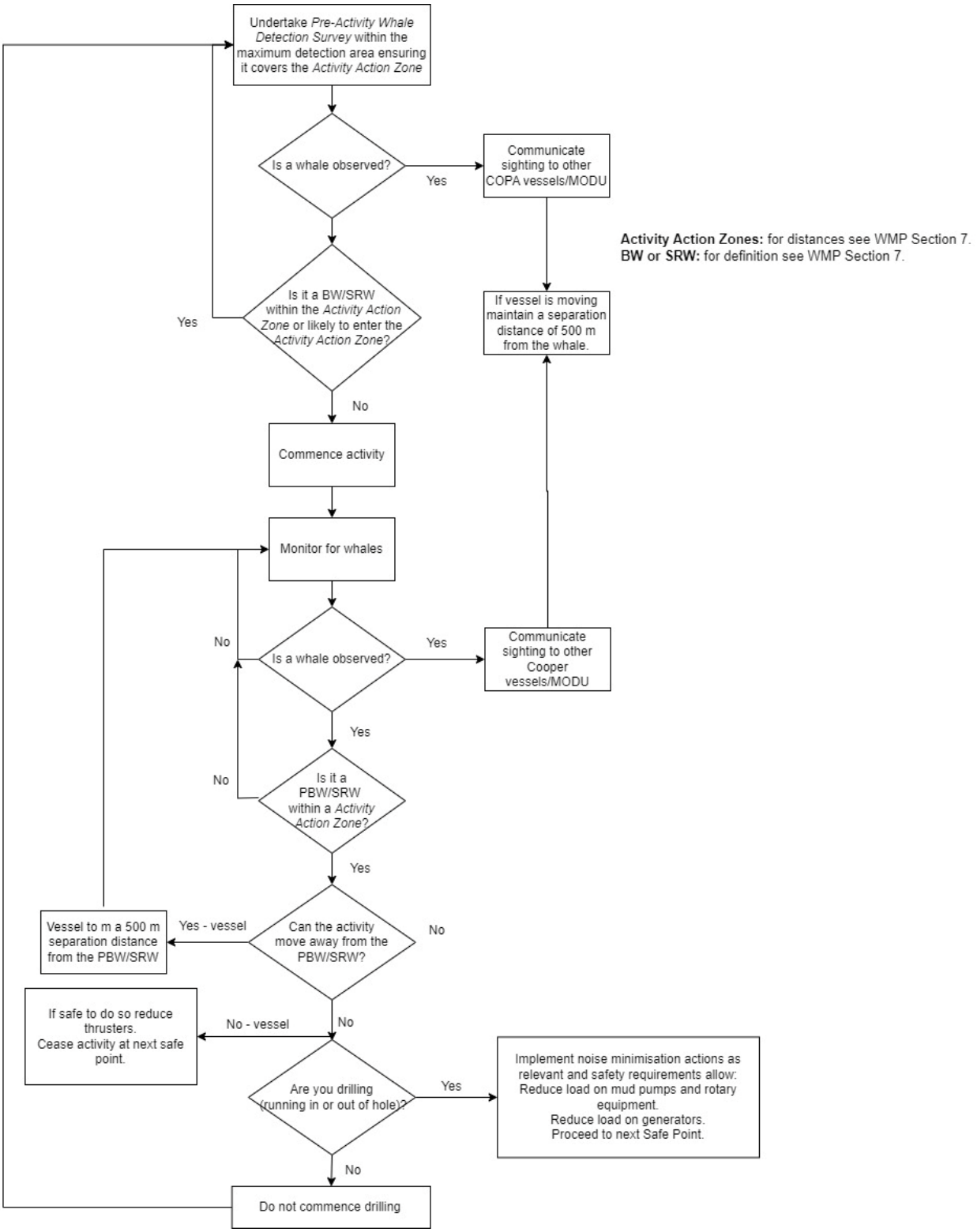


Figure 7-2: Whale Management Actions – Drilling

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Table 7-2: Whale Management Actions – Anchor Pre-lay

Activity/ Source	Pre-Activity Actions and Start criteria	Safe Point
Anchor pre-lay	Prior to commencing anchor pre-lay at a well location a Pre-Activity Whale Observation/Detection Survey[1] will be undertaken as per Section 7.4. Commence anchor pre-lay and move to next Safe Point when absence of whales[3] in AAZ is confirmed[2].	Anchor deployed.
Actions During Activity		
Observation/detection[1] of the AAZ will continue while the activity is being undertaken. If a whale[3] is detected within the AAZ while the vessel is deploying an anchor the vessel will do the following if safe to do so: • Reduce thrusters; and/or • Move away from the whale. Once the anchor is deployed the next anchor can be deployed if: • The whale[3] is observed leaving the AAZ; or • No whales[3] observed for 30 min within the AAZ.		
Notes		
[1]: Detection may be via aircraft, vessel or acoustics, or a combination of these as detailed in Section 3.1. [2]: Absence of whales[3] means: • No whales observed for 30 min within the AAZ. • Whales observed leaving the AAZ. [3]: A BW, SRW, fin, pygmy right or sei whale is a whale that: • Is confirmed to be a BW, SRW, fin, pygmy right or sei whale; or • Is not confirmed to be another species.		

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Table 7-3: Whale Management Actions – MODU Mooring

Activity/ Source	Pre-Activity Actions and Start criteria	Safe Point
MODU mooring	Prior to commencing mobilisation of the MODU to a new well location a Pre-Activity Whale Observation/Detection Survey[1] of the new well location will be undertaken as per Section 7.3. Commence MODU mooring to Safe Point when absence of whales[3] in the new well location AAZ is confirmed[2].	MODU securely anchored.
Actions During Activity		
Observation/detection[1] of the new well location AAZ will continue while the MODU is transiting to the new well location. If whales[3] are observed or detected within the AAZ whilst the MODU is in transit to a new well location, this will be communicated to the COPA Drilling Supervisor on the MODU. The MODU direction of travel will be adjusted, and transit speed slowed where safe to do so, to allow time for the whales to move out of the new well location AAZ. Once mobilisation has commenced if whales[3] are observed or detected within the new well location AAZ the MODU can only enter the AAZ and commence mooring if: • No whales[3] observed for 30 min within the AAZ; or • Whales[3] observed leaving the AAZ; or • The safety of the MODU and other marine users necessitates such action. In this situation the decision will be made by the COPA Drilling Supervisor on the MODU, and reasons documented.		
Notes		
[1]: Observation/detection may be via aircraft, MFO on vessels or acoustics, or a combination of these as detailed in Section 3.1. [2]: Absence of whales means: • No whales[3] observed for 30 min within the AAZ. • Whales[3] observed leaving the AAZ. [3]: A BW, SRW, fin, pygmy right or sei whale is a whale that: • Is confirmed to be a BW, SRW, fin, pygmy right or sei whale; or Is not confirmed to be another species.		

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Table 7-4: Whale Management Actions – MODU Drilling

Activity/ Source	Pre-Activity Actions and Start Criteria	Safe Point
Drilling with vessel on standby	Prior to commencing drilling and at each safe point a Pre-Activity Whale Observation/Detection Survey[1] will be undertaken as per Section 7.3. Drilling can commence or proceed to next Safe Point when absence of whales[3] in AAZ is confirmed[2].	Next positive test of well integrity (e.g. after cementing each casing)
Actions During Activity		
Observation/detection[1] of the AAZ will continue while the activity is being undertaken. If whales[33] are observed within the AAZ while drilling to the next safe point the MODU will do the following if safe to do so: • Reduce load on mud pumps and rotary drilling equipment. • Reduce load on generators. Once the well is at the next safe point drilling can continue as per the Pre-Activity Actions and Start Criteria.		
Notes		
[1]: Observation/detection may be via aircraft, MFO on vessels or acoustics, or a combination of these as detailed in Section 3.1. [2]: Absence of whales means: • No whales[3] observed for 30 min within the AAZ. • Whales[3] observed leaving the AAZ. [3]: A BW, SRW, fin, pygmy right or sei whale is a whale that: • Is confirmed to be a BW, SRW, fin, pygmy right or sei whale; or • Is not confirmed to be another species.		

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Table 7-5: Whale Management Actions – MODU Resupply

Activity/ Source	Pre-Activity Actions and Start Criteria	Safe Point
MODU resupply	Prior to commencing MODU resupply a Pre-Activity Whale Observation/Detection Survey[1] will be undertaken as per Section 7.3. MODU resupply can commence and proceed to the Safe Point when absence of whales[3] in AAZ is confirmed[2].	Resupply complete.
Actions During Activity		
Whale observation/detection monitoring of the AAZ will continue while the activity is being undertaken. If whales[3] are observed/detected within the AAZ during MODU resupply the vessel will do the following if safe to do so: • Reduce thrusters. • Cease resupply and move away from the whale maintaining a distance of 500 m from the whales as detailed in Section 4 (Vessel Whale Interaction).		
Notes		
[1]: Whale observation/detection may be via aircraft, MFO on vessels or acoustics, or a combination of these as detailed in Section 3.1. [2]: Absence of whales[3] means: • No whales[3] observed for 30 min within the AAZ. • Whales[3] observed leaving the AAZ. [3]: A BW, SRW, fin, pygmy right or sei whale is a whale that: • Is confirmed to be a BW, SRW, fin, pygmy right or sei whale; or • Is not confirmed to be another species.		

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Appendix A: Blue Whale Diving Summary

Diving behaviour of blue whales associated with feeding at depth was observed by Gill and Morrice (2003) in the Otway region, who note that blue whales dived steeply, submerging for 1 – 4 minutes, then returned to the surface. Tagging of a pygmy blue whale at the Perth Canyon identified 1677 dives over the tag duration (7.6 days) (Owen et al. 2016). The duration of dives was:

- Feeding - mean of 7.6 minutes, maximum of 17.5 minutes.
- Migratory – mean of 5.2 minutes, maximum of 26.7 minutes.
- Exploratory – mean of 8.6 minutes, maximum of 22.05 minutes.

Tagging of 13 pygmy blue whales (five of which had tags that monitored dive depth and duration) in the Bonney upwelling identified (Möller et al. 2020):

- Whales predominantly carried out area-restricted search (presumably foraging) with generally shallow and short dives. However, dives were generally deeper at night compared to during the day.
- Whales performed mostly square shaped dives that were shallow in depth and short in duration.
- Dives recorded to a maximum of 492 m (mean = 59.5 m ± 94.3), and for a maximum duration of 112 minutes (mean = 6.1 minutes ± 5.2).

Although the maximum recorded dive time was 112 minutes, the mean dive time of 6.1 minutes ± 5.2 provides confidence that the typical dive time is less than 30 minutes (Möller et al. 2020). Tagging of eight blue whales off California (Irvine et al. 2019) identified that dive durations were as long as 30.7 minutes, and no feeding lunges were recorded during dives > 20 minutes in duration. A dive duration of about 10 min would normally be near the limit expected in the Otway region.

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References

Gill, P. and M. Morrice. 2003. Cetacean Observations. Blue Whale Compliance Aerial Surveys. Santos Ltd Seismic Survey Program Vic/P51 and P52. November – December 2002. Report to Santos Ltd.

Irvine, L.M., D.M. Palacios, B.A. Lagerquist, and B.R. Mate. 2019. Scales of Blue and Fin Whale Feeding Behaviour off California, USA, With Implications for Prey Patchiness. Frontiers in Ecology and Evolution 7(338).

Möller LM, Attard CRM, Bilgmann K, Andrews-Goff V, Jonsen I, Paton D and Double MC. 2020. Movements and behaviour of blue whales satellite tagged in an Australian upwelling system. Scientific Reports 10:21165.

Owen. K., Jenner CS., Jenner. M-NM. and Andrews. RD. 2016. A week in the life of a pygmy blue whale: migratory dive depths overlaps with large vessels draft. Animal Biotelemetry. 4:17. DOI 10.1186/s40317-016-0109-4.

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APPENDIX O DESKTOP MARITIME HERITAGE ASSESSMENT

COSMOS ARCHAEOLOGY

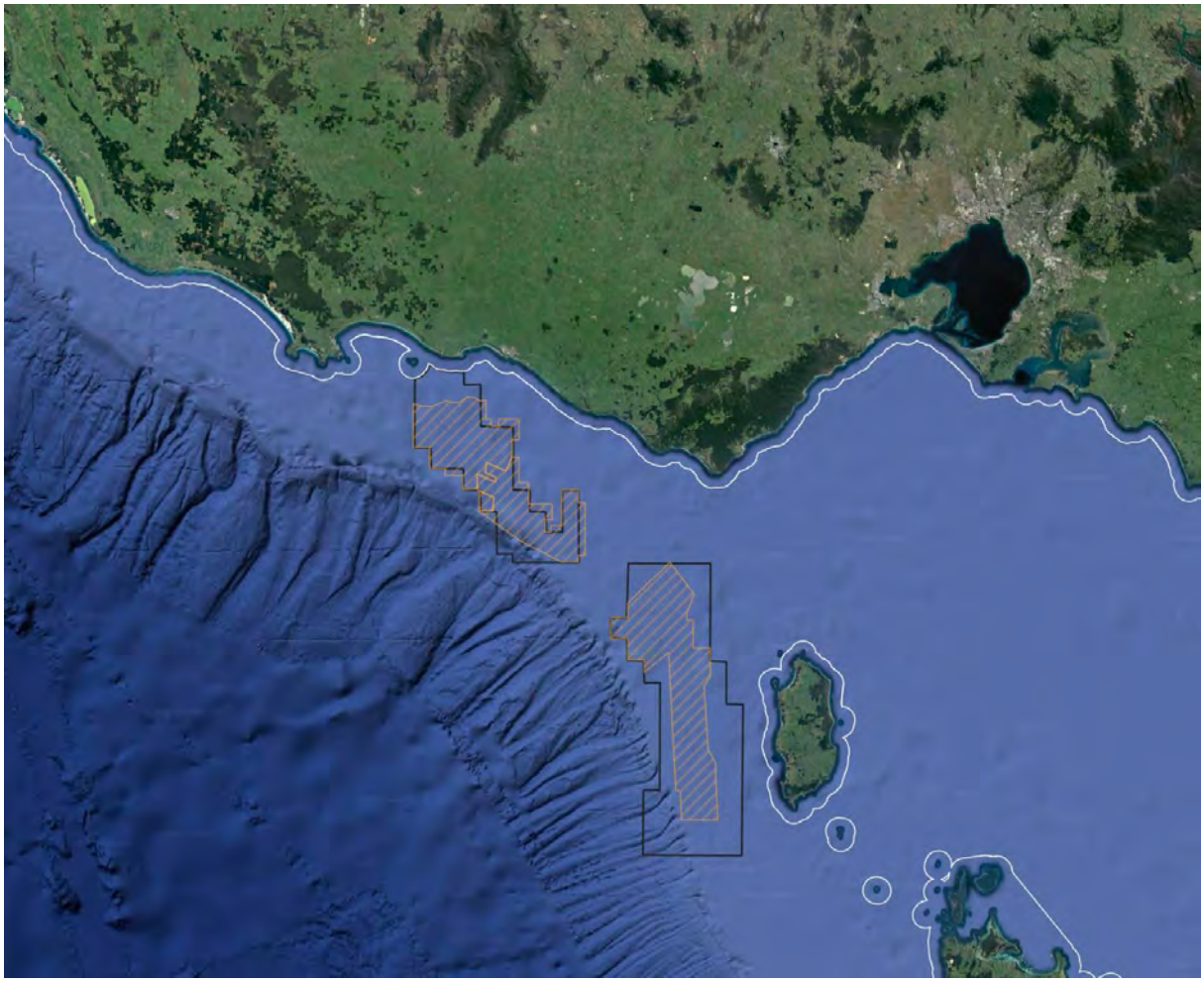
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Otway Exploration Drilling Program



Desktop Maritime Heritage Assessment

Otway Basin

Commonwealth waters

January 2024

Otway Exploration Drilling Program
Desktop Maritime Heritage Assessment

Prepared for:
ConocoPhillips

By:
[redacted]

January 2024

Cosmos Archaeology Job Number J23/16

Cover image: Study area for the Otway Exploration Drilling Program.

Revision	Description	Date	Originator	Reviewer	Approver
V0.1	Draft Report	04/12/2023	JM	CC	CC
V1.0	Client comments incorporated and report finalised	02/01/2024	JM		CC

EXECUTIVE SUMMARY

ConocoPhillips Australia is planning to undertake exploration activities associated with offshore permits VIC/P79 and T/49P located in Commonwealth waters in the Otway Basin, between King Island and Portland, Victoria.

Cosmos Archaeology has been commissioned by to undertake a desktop maritime heritage assessment over the offshore permits and operational areas to identify known maritime heritage such as shipwrecks, plane wrecks and maritime infrastructure and to provide an assessment of the likelihood of encountering unknown anomalies.

The southern coast of Australia has been the main maritime thoroughfare for settlers, convicts, immigrants and traders since the earliest times of European settlement and continues to be through to today. When Bass Strait was officially discovered and named in 1798, it meant ships no longer had to travel around the southern tip of Tasmania, ensuring a potentially faster passage. However, the dangers of the Strait, with its shallow waters and numerous small islands made for a more treacherous journey.

Small sailing vessels travelled the southern coast of Victoria from the early 19th century and Portland Bay was first settled in 1834. Sealing and whaling were the prominent industries during these early years of settlement, however, both industries were already declining by the 1850s. Trading of wheat, alcohol potatoes and other goods was all transported through shipping, with vessels calling in at the various ports along the coast, often finishing their journeys at the large port of Melbourne.

The discovery of gold in the 1850s brought large numbers of immigrants to Victorian shores by larger and faster vessels and these vessels were soon operated by countries other than the British. The development of steam also brought larger vessels onto the main trading routes along the southern Australian coastline and through Bass Strait.

The journey was so treacherous, however, that sections of the Victorian coastline is now known as the ‘Shipwreck Coast’ due to the number of vessels that came to grief along the shore and towering cliffs. King Island too has a shipwreck trail with more than 60 recorded ships colliding with the fringing reefs and rocks surrounding the Island.

The two World Wars saw the Germans and the Japanese patrolling Australian waters, with the Germans laying mines in Bass Strait, which sank the MV *City of Rayville* off Cape Otway and *SS Cambridge* off the Gippsland Coast.

After WWII, the development of bulk container ships saw the smaller ports no longer being required as these much larger vessels required bigger port facilities for loading and unloading and less stops were more profitable for the shipping companies.

This desktop study has identified no known shipwrecks, aircraft wrecks or sea dumping sites within the study area. There is one potential shipwreck that may be in the vicinity of the study area. *SS Seljie* has several coordinates listed for its location, the closest of which is 6 km from the study area.

The review of the heritage databases and historical sources identified 12 shipwrecks that could potentially be located within the study area. The accuracy of the information detailing their wrecking location, and the coordinates assigned to specific wrecks in heritage databases, varies from case to case. It is considered possible that any of these wrecks, or none of them, may be located within the study areas. Note that the frequency of shipwrecks increases with proximity to shore and decreases further offshore where navigational hazards are less.

A further unknown number of shipwrecks can be expected to have occurred within the study area. These could be vessels not accounted for in the local historical sources; vessels not listed on the insurance registers; small coastal craft, to name a few.

Other items of maritime heritage including historical anchors, jettisoned cannon and other items lost overboard or transported to their location from a nearby shipwreck site could also be within the study area. The extensive use of the area and Bass Strait by shipping since colonial times, indicates there is potential for such items to be located within the study area.

If an item of underwater cultural heritage is discovered, it is a legal requirement to notify the Commonwealth heritage authorities with details of the find as soon as possible. The finds will then be evaluated by the relevant state practitioner in this case: Victoria for VIC/79P and Tasmania for T/49P.

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Abbreviations

ACMA	Australian Communications and Media Authority
AHS SD	Australian Hydrographic Service Sea Dumping Database
AUCHD	Australasian Underwater Cultural Heritage Database
CA	Cosmos Archaeology Pty Ltd
DCCEEW	Cth Department of Climate Change, Energy, the Environment and Water
EEZ	Exclusive economic zone
EP	Environment Plan
EPA	*Environmental Planning and Assessment Act (NSW) 1979*
GPS	global positioning system
HV	Heritage Victoria
IHO	Interim heritage order
.kmz	keyhole markup file
LAT	Lowest astronomical tide
LEP	Local Environmental Plan
MASoHI	Maritime Archaeology Statement of Heritage Impact.
MBES	multi-beam echosounder
MHA	Maritime Heritage Assessment
MODU	Mobile Offshore Drilling Unit
NSW MHD	NSW Maritime Heritage Database
RAAF	Royal Australian Air Force
RNE	Register of the National Estate
SHI	State Heritage Inventory
SHR	State Heritage Register
SSS	side scan sonar
TSB	Territorial Sea Baseline
UCH	underwater cultural heritage
UCHA	Cwth *Underwater Cultural Heritage Act 2018*
UXO	unexploded ordnance
VHR	Victorian Heritage Register
WWII	World War II

1 INTRODUCTION

1.1 Background

ConocoPhillips Australia is planning to undertake exploration activities associated with offshore permits VIC/P79 and T/49P located in Commonwealth waters in the Otway Basin, between King Island and Portland, Victoria. The proposed exploration activities will consist of site survey areas measuring 6 km x 6 km and will include the planned well sites, two relief well locations, and a maximum 2.5 km anchor array from the mobile offshore drilling unit (MODU) – consisting of a minimum of 8 and a maximum of 12 anchors subject to an accepted Environment Plan (EP).

Cosmos Archaeology (CA) has been commissioned by ConocoPhillips to undertake a desktop maritime heritage assessment over the offshore permits and operational areas to identify known seabed anomalies such as shipwrecks, plane wrecks and maritime infrastructure and to provide an assessment of the likelihood of encountering unknown anomalies.

Also, within scope, is a review of the planned marine geophysical data to provide a Maritime Archaeology Statement of Heritage Impact (MASoHI) for the proposed works.

1.2 Study Area

The study area encompasses the petroleum titles (VIC/P79 and T/49P) along with their associated operational areas (where those extend beyond the title boundaries) [Figure 1].

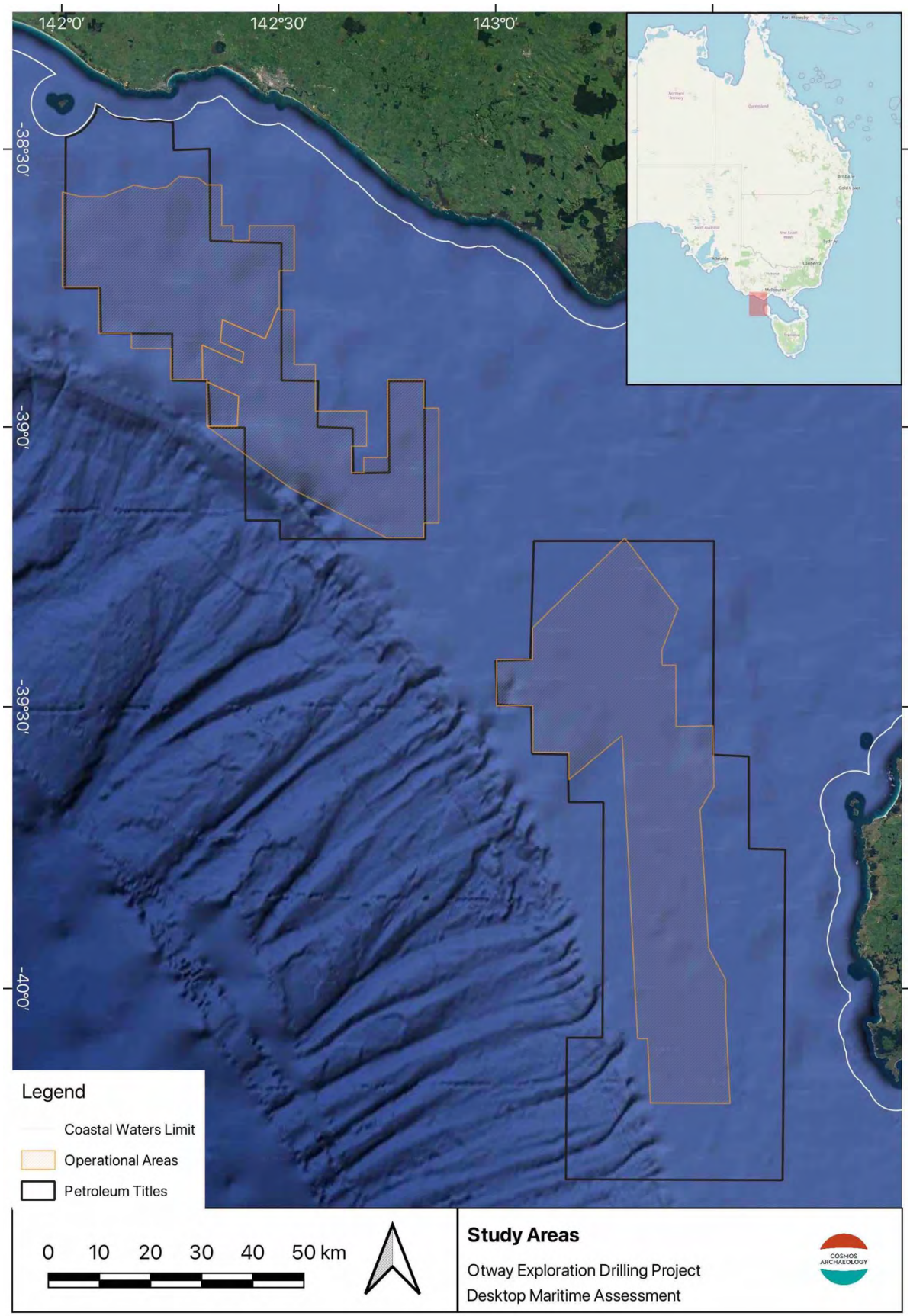


Figure 1: Location of petroleum title (VIC/P79 and T/49P) and associated operational areas.

1.3 Scope of the Study

The scope of this desktop maritime heritage study is to identify any known seabed anomalies that may be of historical significance or cultural in origin within the study areas.

These may include, as per the *Underwater Cultural Heritage Act 2018*, the location within the designated study areas of:

(a) all remains of vessels that have been in Australian waters for at least 75 years.

(b) every article that is associated with a vessel, or the remains of a vessel, and that has been in Australian waters for at least 75 years.

(c) all remains of aircraft that have been in Commonwealth waters for at least 75 years.

(d) every article that is associated with an aircraft, or the remains of an aircraft, and that has been in Commonwealth waters for at least 75 years.

This report does not assess:

- submerged Aboriginal sites or Aboriginal cultural values.

2 METHODOLOGY

This desktop assessment will be undertaken using the following approach:

- Consult a variety of sources as background to the desktop assessment. Research is confined to what is available online and in the consultant's library for information on known and potential maritime archaeological sites.
- Tabulate and map known and potential sites with an estimation of accuracy.
- Provide statements on the expected condition and detectability of the identified maritime archaeological remains.
- Review legislative requirements.

2.1 Sources

This desktop study has used various sources to prepare a list of known and potential shipwrecks, as well as other maritime archaeological sites in the study area (Table 1). Research is confined to what is available online and, in the consultant's extensive library.

Table 1: Historic resources consulted in this report.

Source	Description
Australasian Underwater Cultural Heritage Database (AUCHD)	The Australasian Underwater Cultural Heritage Database, maintained by the Commonwealth Department of Climate Change, Energy, the Environment, and Water (DCCEEW), is an online database of known and potential shipwrecks, aircraft wrecks and other maritime heritage sites and objects in Australian and Commonwealth waters.
Australian Government Department of Defence and Australia Hydrographic Service – Sea Dumping in Australia (AHS SD)	This database of sea dumping sites is managed by the Australian Government Department of Defence with information supplied by the Australian Hydrographic Service. http://www.hydro.gov.au/n2m/dumping/dumping.htm
Australian Government Department of Defence UXO in Australia	This database of sea dumping and UXO sites is managed by the Australian Government Department of Defence with information supplied from various sources including the Australian Hydrographic Service. https://uxo-map.defence.gov.au/
Archival sources and heritage reports	A review of a wide range of primary and secondary historical sources held by the National Library of Australia, the National Archives of Australia, and various published and unpublished heritage reports and articles.
Previous reports completed by Cosmos Archaeology	A review of reports on projects Cosmos Archaeology has conducted within the area of the study areas.

2.2 General statements on site locations

Few of the potential maritime archaeological sites presented in this study have accurate positions. This is because most of the shipwrecks and aircraft wrecks potentially situated in the study area have not been located and are known only from historical sources or heritage databases. Therefore, only broad areas within which they can be expected to be found can be presented with any confidence. As for the wrecks which have been located, designating accurate positions was not always possible as, in most cases, it is not known how their

positions were recorded, such as with global positioning systems (GPS) or a compass/sextant. Furthermore, positions of known wrecks may have been taken off maritime charts and, therefore, reductions in precision due to plotting and scaling could be expected. Coordinates provided in some databases could also have been inferred from vague historical accounts which in fact could place the site within a relatively large area. This issue is proportionately compounded for sites that are lost at increasingly greater distances from the coast of Australia.

GPS coordinates have become increasingly reliable, but it must be noted that positions recorded with GPS in the 1980s to 1990s had accuracies of 100-300 metres. Those sites found and recorded by GPS closer to shore are likely to have had their location updated over time, but sites further from the coast and/or less accessible may still be listed with old and inaccurate coordinates. There are also different geodetic datums used by GPS units, but if datum is not recorded with the coordinates this can lead to errors when using the same coordinates with a different datum. User error can also occur when a recorder, or someone copying the location records, interprets the coordinates in the wrong style, such as reading coordinates in degrees, minutes, seconds rather than degrees and decimal minutes for example. Based on these scenarios, it is safe to assume that there is always a degree of inaccuracy with the provision of site coordinates.

Australasian Underwater Cultural Heritage Database (AUCHD) [1]

The Commonwealth Underwater Cultural Heritage Database (AUCHD) is managed by the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). The current database was launched in December 2009 and includes all known shipwrecks, aircraft and other maritime cultural heritage in Australian waters. At the time of the production of this report, the database contains information of:

- 10,461 shipwrecks of which 6,996 have been assigned geographic coordinates.
- 281 aircraft of which 194 have been assigned geographic coordinates; and
- 256 items of other maritime cultural heritage of which 158 items have locations (note these items include historic maritime infrastructure, dumping sites, monuments, museums, and natural features in addition to artefacts).

Information presented in the AUCHD is compiled from each of the State and Territory historic shipwreck agencies or supplied by collecting institutions holding historic shipwreck objects. The integrity or source of the information held by these agencies is unknown. The size of the area in which an individual wreck could be found varies depending on the historical information available. Some wrecks which have been found have a latitude and longitude position, but the accuracy of that position could not be determined as the method used in obtaining the position is not known.

[1] **Department of Climate Change, Energy, the Environment, and Water, 2023**, *Australasian Underwater Cultural Heritage Database*, available at https://www.dcceew.gov.au/parks-heritage/heritage/underwater-heritage/auchd.

Department of Defence – Unexploded Ordinance (UXO) in Australia [2] and Australian Hydrographic Service – Sea Dumping (AHS SD)[3]

The locations of UXO and sea dumped materials are provided by the Department of Defence from various sources. Dumped materials of heritage value can include abandoned vessels and historic munitions, such as WWII-era aircraft components and Lend-Lease material.[4] It is important to note that these locations are where the materials were designated to be dumped, but it has been found that those dumping the materials may not have been particular about the final location. An example of this was identified in a previous CA study that found the Narrabeen Dumping Ground, Sydney (a ships graveyard), despite having a high concentration of wrecks within its boundary, also had a dense concentration of sites between four to five kilometres to the east, outside of the designated dumping area.[5]

[2] **Department of Defence 2023**, *Unexploded Ordinance (UXO) in Australia* available at https://uxo-map.defence.gov.au/, accessed 21 November 2023
[3] **Department of Defence and Australian Hydrographic Service, 2023**, *Sea Dumping in Australia*, available at http://www.hydro.gov.au/n2m/dumping/dumping.htm
[4] **Cosmos Archaeology, 2014,** INPEX Ichthys LNG Project : Nearshore Development – Dredging. East Arm, Darwin Harbour, Northern Territory. Relocation of Heritage Objects and Removal of debris. Prepared for Tek Ventures Pty Ltd
[5] **Cosmos Archaeology, 2007b,** Submarine Cable System, Landfall Option – Collaroy: Underwater Heritage Impact Assessment Baseline Review, report prepared for Patterson Britton and Partners.

3 LEGISLATION

3.1 Commonwealth Legislation

Commonwealth *Underwater Cultural Heritage Act 2018*

The Commonwealth *Underwater Cultural Heritage* (UCH) *Act 2018* (replacing the *Historic Shipwrecks Act 1976*) provides for the protection, conservation, and management of Australia's historic shipwrecks, sunken aircraft, and other types of underwater cultural heritage.[6] The Act is also designed to enable the cooperative implementation of national and international maritime heritage responsibilities, and to promote public awareness, understanding, appreciation, and appropriate use of Australia's underwater cultural heritage.

Under Part 1, Division 2 of the *UCH Act 2018*, underwater cultural heritage is defined as "any trace of human existence that has a cultural, historical or archaeological character; and is located under water." Traces of human existence are considered to be located under water whether they are located partially or totally under water, and whether they are under water periodically or continuously. A "trace of human existence" is further defined to include:

(a) sites, structures, buildings, artefacts and human and animal remains, together with their archaeological and natural context; and

(b) vessels, aircraft and other vehicles or any part thereof, together with their archaeological and natural context; and

(c) articles associated with vessels, aircraft or other vehicles, together with their archaeological and natural context.

Seabed pipelines and cables, and other installations that are placed on the seabed and are still in use, are not considered to be underwater cultural heritage under the Act.

Different articles of underwater cultural heritage are, or can be, protected under the *UCH Act 2018*, depending on the kinds of articles, their heritage significance, and their location. Part 2, Division 1 of the Act provides that certain articles of underwater cultural heritage are automatically protected, including:

(a) all remains of vessels that have been in Australian waters for at least 75 years.

(b) every article that is associated with a vessel, or the remains of a vessel, and that has been in Australian waters for at least 75 years.

(c) all remains of aircraft that have been in Commonwealth waters for at least 75 years.

(d) every article that is associated with an aircraft, or the remains of an aircraft, and that has been in Commonwealth waters for at least 75 years.

These articles of underwater cultural heritage are automatically protected whether the existence or location of the article is known, and even if the article is or has been removed from Australian or Commonwealth waters – after the passage of 75 years.

The term "associated with" is defined under Part 1, Division 2 of the Act whereby an article is considered to be associated with a vessel, aircraft, or other vehicle if the article:

(a) appears to have formed part of the vessel, aircraft or other vehicle; or

(b) appears to have been installed or carried on the vessel, aircraft or other vehicle; or

(c) is remains of humans or animals that appear to have been on board the vessel, aircraft or other vehicle; or

[6] **Commonwealth of Australia, 2018,** *Underwater Cultural Heritage Act 2018*, available at https://www.legislation.gov.au/Details/C2018A00085, accessed 4 December 2023.

(d) appears to have been constructed or used by a person associated with a vessel.

"Australian waters" and "Commonwealth waters" have different meanings under the *UCH Act 2018* (Part 1, Division 2), whereby "Australian waters" extend from the seaward limits of a State to the outer limit of Australia's continental shelf, and "Commonwealth waters" extend from waters 3 nautical miles seaward of the Territorial Sea Baseline adjacent to the States and the NT – i.e., beyond State or Territory coastal waters – to the outer limit of Australia's continental shelf. Specifically, under Part 1, Division 2 of the Act:

"Australian waters" means:

(a) any waters on the landward side of the territorial sea of Australia that are not within the limits of a State; and

(b) the territorial sea of Australia; and

(c) the sea above the continental shelf of Australia; and

(d) the seabed and subsoil beneath any such sea or waters.

"Commonwealth waters" means:

(a) the territorial sea of Australia, other than coastal waters of a State or the Northern Territory; and

(b) the sea above the continental shelf of Australia; and

(c) the seabed and subsoil beneath any such sea or waters.

The Territorial Sea Baseline generally corresponds with the low water line along the coast, measured to the level of Lowest Astronomical Tide. However, in some cases, straight baselines have been established in areas where the coastline is deeply indented and cut into, or where there is a fringe of islands along the coast in its immediate vicinity.

The study areas are situated within "Commonwealth waters" as defined in the *Underwater Cultural Heritage Act 2018*, and as such, shipwrecks, aircraft wrecks and all associated articles that have been in the water for over 75 years are automatically protected (Figure 2).

Part 3, Division 2 of the *Underwater Cultural Heritage Act 2018* provides for the regulation of activities relating to protected underwater cultural heritage. Specifically, any conduct that has or is likely to have an adverse impact on protected underwater cultural heritage is prohibited unless carried out in accordance with a permit granted under the Act. Conduct is considered to have an adverse impact on protected cultural heritage if it:

(a) directly or indirectly physically disturbs or otherwise damages the protected underwater cultural heritage; or

(b) causes the removal of the protected underwater cultural heritage from waters or from its archaeological context.

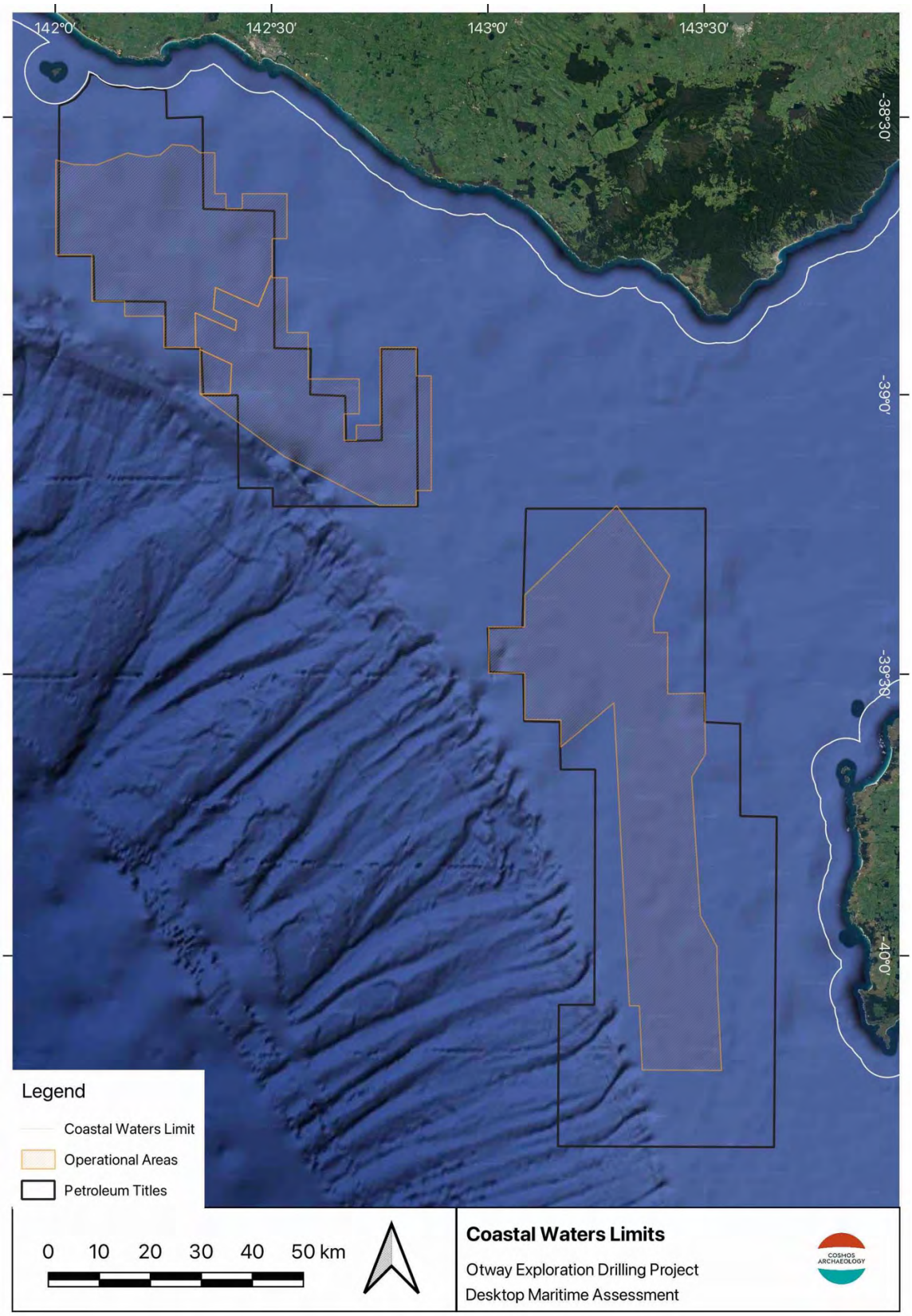


Figure 2: The study area is located seaward of the coastal waters boundary of both Victoria and King Island.

3.1.1 *Environment Protection and Biodiversity Conservation Act 1999* [7]

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the principal environmental Act at a Commonwealth level. Australia is one of only a few countries worldwide that has enacted legislation to implement its obligations under the World Heritage Convention. The EPBC Act and the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regs) focuses Government interests on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of State and local significance. Matters of national environmental significance include but are not limited to flora, fauna, ecological communities and heritage places of national and international importance.

The EPBC Act requires approval from the Minister for actions with a significant impact on places included on the World Heritage List or Commonwealth Heritage List, which may include maritime and underwater heritage.

There are no sites on the World, National or Commonwealth lists within the study area.

3.2 Heritage policies relevant to maritime cultural heritage

3.2.1 *UNESCO Convention on the Protection of Underwater Cultural Heritage*

The United Nations Educational, Scientific and Cultural Organization (UNESCO) 2001 *Convention on the Protection of the Underwater Cultural Heritage* is an international treaty that was developed to provide a common framework for States Parties on how to better identify, research, and protect underwater heritage whilst ensuring its preservation and sustainability. The UNESCO 2001 *Convention* consists of a main text that sets out basic principles for the protection of underwater cultural heritage and provides a detailed State cooperation system, and an Annex that outlines widely recognised practical rules for the treatment and research of underwater cultural heritage. The UNESCO 2001 *Convention* entered into force in 2009.

The Commonwealth of Australia supported the principles and drafting of the UNESCO 2001 *Convention* and is currently considering ratification of the Convention in accordance with requirements under Australia's *Treaty Making Guidelines.* The *Underwater Cultural Heritage Act 2018* was also developed specifically to align with the UNESCO 2001 Convention.

In 2010, the Commonwealth, States, and the NT signed the *Australian Underwater Cultural Heritage Intergovernmental Agreement* that would enable the Australian Government to ratify the UNESCO Convention 2001, should it so choose. One of the key aims of the Agreement is for all parties to meet internationally recognised best practice management of Australia's underwater cultural heritage as outlined in the Rules in the Annex to the UNESCO 2001 *Convention*.

The main principles of the UNESCO 2001 Convention are as follows:

- Obligation to Preserve Underwater Cultural Heritage – States Parties should preserve underwater cultural heritage and act accordingly. This does not mean that States would necessarily have to undertake archaeological excavations; they only have to take measures according to their capabilities. The Convention encourages scientific research and public access.

[7] **Department of Climate Change, Energy, the Environment, and Water 2023,** *Australia's National Heritage List,* available at https://www.environment.gov.au/heritage/places/national-heritage-list, accessed 21 November 2023; and **Department of Climate Change, Energy, the Environment, and Water 2023,** *Australia's Commonwealth Heritage List*, available at https://www.environment.gov.au/heritage/places/commonwealth-heritage-list, accessed 21 November 2023.

- *In Situ* Preservation as first option – The *in-situ* preservation of underwater cultural heritage (i.e. in its original location on the seafloor) should be considered as the first option before allowing or engaging in any further activities. The recovery of objects may, however, be authorized for the purpose of making a significant contribution to the protection or knowledge of underwater cultural heritage.
- No Commercial Exploitation – The 2001 Convention stipulates that underwater cultural heritage should not be commercially exploited for trade or speculation, and that it should not be irretrievably dispersed. This regulation is in conformity with the moral principles that already apply to cultural heritage on land. It is not to be understood as preventing archaeological research or tourist access.
- Training and Information Sharing – States Parties shall cooperate and exchange information, promote training in underwater archaeology and promote public awareness regarding the value and importance of underwater cultural heritage.

The 36 Rules of the Annex to the Convention present an operating methodology for underwater works associated with UCH and this is a global reference document for underwater archaeology. A Manual for Activities directed at UCH is also provided to guide immediate and long-term management of UCH.

3.2.2 *Charter on the Protection and Management of UCH ICOMOS 1996* [8]

The Charter outlines the principles for protecting and managing UCH. These principles include (but are not limited to):

- *The preservation of UCH* in situ *should be considered as a first option.*
- *Non-destructive techniques should be considered and encouraged in preference to excavation.*
- *Investigation must not adversely impact UCH more than is necessary for the mitigation of the impact.*
- *Investigation must be accompanied by adequate documentation.*

3.2.3 *Guidelines for the Management of Australia's Shipwrecks* [9]

The *Guidelines for the Management of Australia's Shipwrecks* was produced as a combined publication by the Australian Institute for Maritime Archaeology Inc. (now the Australasian Institute for Maritime Archaeology) and the Australian Cultural Development Office (now the Australian Government Department of Climate Chane, Energy, the Environment and Water) in 1994.

The guidelines comprise principles and practices that have been adopted by Australia's professional maritime archaeologists and serve as useful modules for other groups. The document includes a Statement of Principles governing the broad approach to be taken when dealing with historic shipwreck sites and related archaeological collections.

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[8] **ICOMOS 1996,** *Charter on the Protection and Management of Underwater Cultural Heritage,* available at https://www.icomos.org/en/faq-doccen/179-articles-en-francais/ressources/charters-and-standards/161-charter-on-the-protection-and-management-of-underwater-cultural-heritage, accessed 21 November 2021.

[9] **Australian Institute for Maritime Archaeology. Special Projects Advisory Committee & Australian Cultural Development Office & Australian Institute for Maritime Archaeology 1994,** *Guidelines for the management of Australia's shipwrecks*, Australian Institute for Maritime Archaeology and the Australian Cultural Development Office, Canberra.

4 KNOWN AND POTENTIAL MARITIME ARCHAEOLOGY

4.1 Maritime Background of the study area

4.1.1 *Early Exploration and trade*

It was the master of the wreck of the *Sydney Cove* on Preservation Island in 1797, that first suggested there might be a strait between New South Wales and Tasmania (Van Diemen's Land). He thought the south westerly swell coupled with the tides and currents indicated Preservation Island was in a channel that linked the Pacific and Southern Indian Oceans. George Bass was given permission by Governor Hunter to search for it and first attempted to find the strait in an open Sydney-built whale boat.[10] While he never actually entered the Strait during this voyage, he did concur that it existed from the swell he encountered. In 1798, he and Matthew Flinders, in the sloop *Norfolk*, circumnavigated Tasmania and confirmed it was an Island.[11]

Bass Strait's western boundary is defined by King Island in the west and the Furneaux Islands in the east. The Strait is 500 km long and 250 km wide and is relatively shallow, averaging 50 m – 70 m. Its shallowness and the many small islands that exist in the Strait, can make sea conditions treacherous for vessels travelling through the southern Australian trading route. However, the discovery of the Strait also considerably shortened sailing time and increased accessibility to budding coastal settlements in the early colony, particularly along the southern coastline of Victoria.

In December 1800, Captain James Grant in the *Lady Nelson*, on the order of the Duke of Portland had explored the coast of Victoria and named Portland Bay, Cape Albany Otway and Cape Schank. He was the first to cross through Bass Strait from west to east.[12]

Bass had reported the large seal colonies along the Victorian coast during his explorations. Sealing ships and whaling vessels began plying Bass Strait and the coastal waters of Victoria often setting up temporary camps along the coastline as required.[13] As the seal population declined, whaling replaced sealing as the major industrial activity along the Victorian coastline.[14]

In 1834, the first permanent Victorian European settlement was established at Portland Bay by Edward Henty. Up until this date, the area had been used by whalers as a base and whaling continued to be the main commercial industry well in to the 1840s (Figure 3).[15] Portland Bay offered a deep sheltered harbour, unless gales blew in from the southwest. After 1835 vessels would arrive with livestock and supplies and leave with oil, wool and whalebone. By 1841, Portland was receiving immigrants. A government jetty was built in 1846 but it did not extend far enough, and lighters still had to ferry goods out to the bigger ships in deeper water (Figure 4).[16]

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[10] **Macrae Bowden, K. 2006** *George Bass (1771 – 1803)* in the Australian Dictionary of Biography, available at https://adb.anu.edu.au/biography/bass-george-1748.
[11] **Cooper, H. M., 2006** *Matthew Flinders (1774 – 1814)* in the Australian Dictionary of Biography, available at https://adb.anu.edu.au/biography/flinders-matthew-2050.
[12] **McCartin, A. 2006** *James Grant (1772 – 1883))* in the Australian Dictionary of Biography, available at https://adb.anu.edu.au/biography/grant-james-2117.
[13] **Department of the Environment, 2015**, South-east marine region profile: A description of the ecosystems, conservation values and uses of the South-east Marine Region, Commonwealth of Australia 2015
[14] *Op. Cit.* **Department of the Environment, 2015**, p. 61.
[15] **State Library of Victoria, 2023** *Victoria's early history 1803 – 1851* available at https://guides.slv.vic.gov.au/Victoriasearlyhistory/timeline.
[16] *Op. Cit.,* **Barnard, J. 2008,** p. 16.

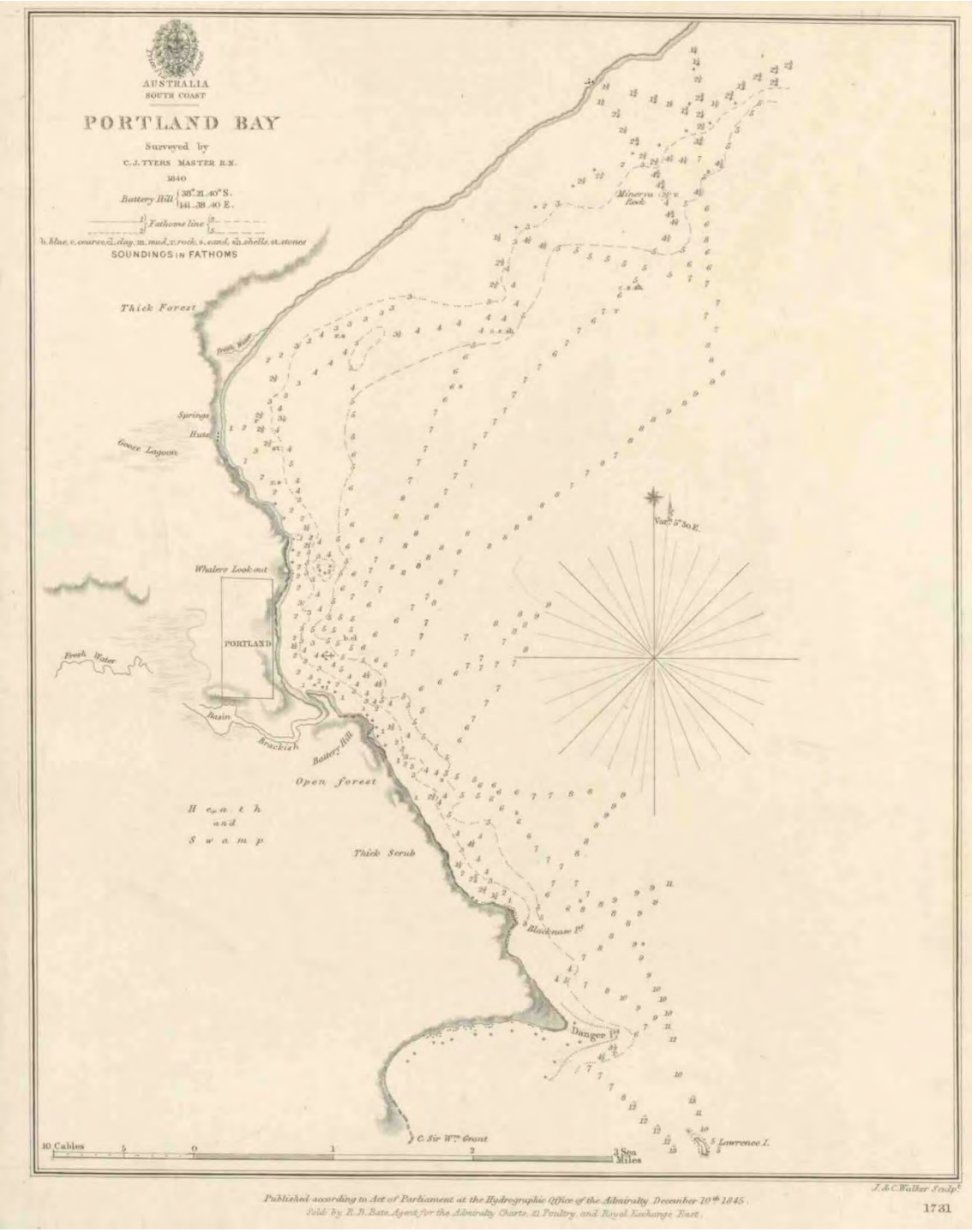


Figure 3: Portland Bay 1840, six years after Edward Henty permanently settled Portland.[17]

[17] **Great Britain. Hydrographic Dept & Bate, R. B & Tyers, C. J & J. & C. Walker. 1845**, *Australia, South Coast, Portland Bay* Published according to Act of Parliament at the Hydrographic Office of the Admiralty ; Sold by R.B. Bate, agent for the Admiralty charts, 21 Poultry and Royal Exchange East, [London] viewed 28 November 2023 http://nla.gov.au/nla.obj-233815684



Figure 4: By 1863, several jetties had been built to service shipping imports and exports.[18]

Port Fairy too attracted many sealers and whalers, although the whaling station closed in the 1840s due to an exhausted supply of whales. However, Port Fairy continued to flourish due to the rich soils and commercial opportunities and by 1857, Port Fairy was on the of the busiest ports in the colony, second only to the Port of Melbourne (Figure 5).[19]

18 **Victoria. Department of Crown Lands Survey, 1863,** Municipality of Portland [cartographic material]. Melbourne: Dept. of Crown Lands and Survey.
19 **InVictoria, 2023** *Port Fairy: history and heritage,* available at https://port-fairy.com/history-and-heritage#:~:text=The%20area%20attracted%20many%20sealers,island%20now%20bears%20his%20name.



Figure 5: Excerpt from map of Belfast (Port Fairy) 1851 showing wrecks already charted along the coast.[20]

4.1.2 *Development of maritime shipping*

Since Melbourne was officially settled in the 1830s, the settlement relied heavily on shipping as did the wider Victorian economy. Melbourne depended on overseas and coastal shipping for economic growth. Pre-gold rush small and relatively slow vessels provided irregular voyages to and from Britain bringing immigrants. In the early years these voyages could take as long as 130 days. The sea was the main means of transport for the early Victorian settlements. Not only did it provide transport routes, but it also provided a means to make money by transporting livestock, timber, building materials, furniture, clothing and alcohol. Official orders, laws and news from other colonies were all carried by ships, and it was from the sea that the early colonial governments feared foreign threats would come.[21]

Prior to 1849, British Navigation Acts dictated who could serve the Australia trade. Any vessel transporting passengers and/or cargo had to be built in a shipyard belonging to the British Empire and manned by a British crew. Australian exports could only be shipped in British ships and coastal shipping was also controlled by the British.[22] The number of vessels arriving in Australia was linked to growing number of immigrants receiving assisted passage, which therefore encouraged ship-owners to enter the market.

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[20] **Anon 1851** *Belfast Town.* SYDNEY B3, Port Fairy (T) [microform]
[21] **Barnard, J. 2008,** Jetties and Piers. A background history of maritime infrastructure in Victoria. Published by the Heritage Council of Victoria, p. 12.
[22] **Various, 2008** *Melbourne shipping,* Encyclopedia of Melbourne. Published by University of Melbourn, available at https://www.emelbourne.net.au/biogs/EM01366b.htm.

Pre-gold rush, coastal shipping was relatively primitive, largely confined to the Sydney to Melbourne run and Melbourne to Portland. When news of the discovery of gold in Victoria reached London, an immediate demand for a swift journey to Australia brought larger, swifter ships to southern Australian shores – it is estimated that 86,000 people arrived in Australia to find their fortune.[23] Melbourne and other coastal ports became major hubs following discovery of Victorian gold in the early 1850s.

The British Navigation Act was demolished in 1849 which allowed foreign-built vessels to trade in the Australian colony. This saw the fast American clipper ships arriving which reduced the amount of time it took to travel from Europe to Australia, almost by half.

Steam ships however took longer to arrive on Australian shores than in Europe. Sailing ships were cheaper to construct and had larger cargo holds without having to cater for the space for engines or coal bunkers. Access to coal on long haul journeys was also a drawback. Steamship improvements during the 1860s through to the 1880s including the introduction of the triple-expansion engine enabled steamships to carry enough coal and the opening of the Suez Canal in 1869 reduced the travel time considerably.

In Australia, however, sailing ship design was the priority. Composite craft (iron framed and timber planked) and iron hulled ships proved themselves just as competitive in the export market, interstate and intrastate trade. By the late 1870s, however, steam was becoming the main means of propulsion of most vessels in the Australian maritime trade and by the 1880s, 85% of ships entering Melbourne from both overseas and interstate were steam driven.[24]

4.1.3 *The treacherous coast*

The southwest coastline of Victoria was rough and treacherous and the long stretch between Moonlight Head and Port Fairy is now called the Shipwreck Coast. Port Fairy is at the western end and twenty ships are recorded as having been lost there between 1836 and 1876.[25] Warrnambool's Lady Bay has 15 recorded shipwrecks from 1850 to 1914. The *Loch Ard* (1878) ran aground onto Mutton Bird Island in a sea mist, with only two survivors, while the *Schomberg* (1855) ran aground at Curdies Inlet. The captain was entertaining the ladies below decks at the time. The last recorded major shipwreck along this stretch of coast was the *Antares*, sailing from Marseilles to Melbourne during WWI and sinking with all hands. Portland, while further west of the shipwreck coast has 19 recorded shipwrecks in Portland Bay. These are mostly smaller vessels, carrying immigrants, timber, whaling products, potatoes, clothing and alcohol. Many still have not been located.[26]

From the 1830s, interstate shipping to and from colonial ports on the southern, western, and eastern coasts of Australia travelled through the notoriously rough Bass Strait, a journey that was 600 nm shorter than going around the south of Tasmania. Bass Strait is studded with islands, shoals, and reefs, which has produced a disproportionately large number of shipwrecks away from the mainland. In the west, vessels had to navigate between Cape Otway and King Island and the strong winds and currents of the Strait spelled disaster for many. There are over 60 ships recorded as having wrecked on King Island alone.[27] The idea of the installation of navigational aids and the construction of lighthouses to reduce the loss

[23] *Op. Cit.* **Various, 2008**.
[24] *Op. Cit.* **Various, 2008**.
[25] **Heritage Council of Victoria, n.d.,** *Guide to the Historic Shipwreck Trail on Victoria's West Coast.* Department of Planning and Community Development.
[26] *Op. Cit.,* **Heritage Council of Victoria**, n.d.,
[27] **DCCEEW, 2023** *Australasian Underwater Cultural Heritage Database*, available at https://www.environment.gov.au/shipwreck/public/maps/shipwreck-map-search-load.do, accessed 27 November 2023.

of shipping began in the 1830s, although it took another decade before the first lighthouse was built.[28]

In 1835, the convict ship *Neva* was wrecked on King Island and 300 lives were lost. A parliamentary committee recommended a light be placed on King Island, however several more shipwrecks in the vicinity and the loss of the immigrant ship *Cataraqui* with 414 lives in 1845 would occur before the idea morphed into action (Figure 6). King Island has a maritime trail that tells the story of at least 7 shipwrecks that have come to grief on the island including:

- *Blencathra* (1875)
- *British Admiral* (1874)
- *Cataraqui* (1845)
- *Loch Leven* (1871)
- *Netherby* (1866)
- *Neva* (1935)

The first lighthouse to help protect this part of the coast was built at Cape Otway and was finally erected in 1848.[29]

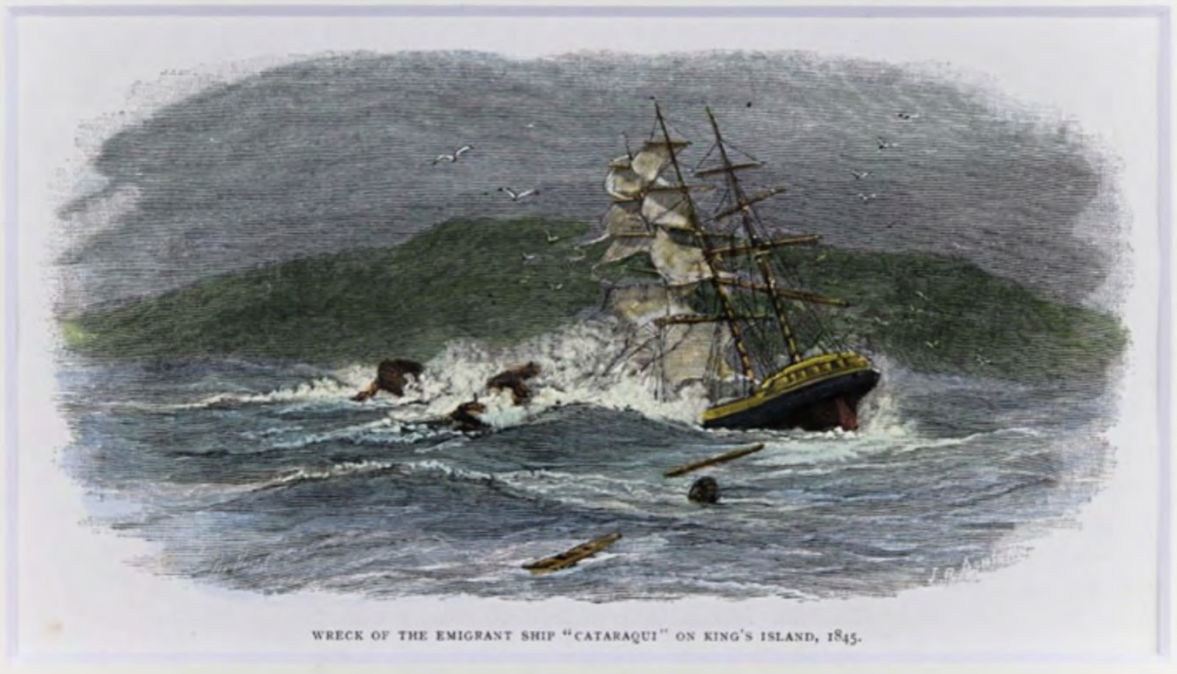


Figure 6: Hand tinted wood engraving of the Emigrant ship 'Cataraqui', King Island 1845 by Julian Ashton c 1887.[30]

[28] **Australian Government, n.d.**, 'Early Australian shipwrecks', [Online] http://www.australia.gov.au/about-australia/australian-story/early-austn-shipwrecks, accessed 21 November 2023.
[29] *Op. Cit.,* **Barnard, J. 2008,** p. 17.
[30] **Aston, J. c1887***, Wreck of the Emigrant Ship "Cataraqui" on King Island 1845*. First published in The Picturesque Atlas of Australasia 1886 – 1888.

4.1.4 *Defence Activities*

The outbreak of World War I in 1914 brought the threat of war to Australia for the first time. The development of long distance, armed vessels coupled with the ability to deploy floating sea mines meant Australian waters were reachable. Two of the main trading cargos for Australian settlements, coal and wheat, were considered important to the war effort and made trading vessels vulnerable to attack. Coastal steamers were withdrawn from interstate services and pressed into war services, either as troop transfer ships or participating in conveys transporting goods to Britain. The interstate and coastal trade never fully recovered before World War II broke out in 1939.

As had happened in World War I, German raiders were active in Australian waters during World War II, and from 1942 Japanese submarines were also patrolling. Early in the war, German naval forces covertly laid mines in Bass Strait. The German navy utilised the captured Norwegian tanker ship, *Storstad,* to lay mines off Wilsons Promontory and Cape Otway in late October 1940. The mines laid by *Storstad* were responsible for sinking the British steamer *Cambridge,* two-and-a-half miles south of Wilsons Promontory on 8 November 1940. Less than 24 hours later, the American merchant ship, *City of Rayville* was sunk off Cape Otway. The Naval Board closed Bass Strait to shipping and began minesweeping operations, eventually removing a total of twelve mines from two minefields. Although the minesweeping operation was considered successful, and Bass Strait was quickly reopened for shipping, mines continued to wash ashore in subsequent years.[31]

4.1.5 *Post WWII shipping*

Post-WWII advances in technology saw the size of international carriers increase dramatically and from the 1960s large container and bulk ships began visiting Victorian ports. These large vessels and their containers transformed port facilities. These large ships had to travel further off the coast and their size meant they could not call into smaller coastal trading ports. It brought an end to small coastal trading vessels that were forced to sail close to the treacherous waters near the coast. These coastal waters are now used predominantly by fishing trawlers and pleasure craft.

4.1.6 *Summary of cultural activities within the study area*

From the review of the known history of the study area, the following activities were identified as previously and/or currently occurring across Bass Strait:

- Colonisation and the development of ports and harbours.
- Fishing, sealing, and whaling.
- Intrastate and interstate shipping.
- WW II defensive activities.
- International shipping, and
- Sea dumping of ammunition, chemicals and other items.

[31] **Hermon, Gill G 1957,** *Volume I: Royal Australian Navy*, 1939 - 1942. pg. 270-271.

4.2 Known Maritime Archaeological Sites within the study area.

4.2.1 *Shipwrecks*

Review of the Commonwealth underwater cultural heritage database (UCHD) and the Victorian Heritage Database (VHD) did not identify any known shipwrecks within the study area.

There is one recorded shipwreck potentially within the vicinity of the study area. On 30 March 1929 the Norwegian owned 6598-ton *S.S. Seljie* had departed Melbourne and had just cleared Cape Otway on a course to Cape Leeuwin, Western Australia. The vessel was carrying a cargo of wheat with a destination of Las Palmas, Canary Islands. Weather conditions were reported as clear, and the Cape Otway lighthouse was seen clearly. At approximately 9.25pm, the Third Officer of the *Seljie*, Erling Thorsen, saw the lights of the inward bound Union Steamship Company's *SS Kaituna* which appeared to be correctly coming along the portside. Before long however the *Kaitana*'s lights appeared on the starboard side and very close.

At approximately 10:05 pm the bow of the *Kaituna* crashed into the *Seljie* between No. 5 and No. 6 holds and the *Seljie* was reported as opening as if it had been torpedoed.[32] All the crew of *Seljie* were transferred to *Kaituna* and that vessel made it Melbourne under its own steam despite being damaged. *SS* Seljie sank in less than 22 minutes. The subsequent Marine Board Inquiry laid the blame largely on the captain of the *Kaituna.*

The site of SS *Seljie* has been located but not inspected. However, there are three different coordinates, recorded from different sources (Figure 7). The vessel was provisionally protected in 2002 (before it was old enough to fall under automatic protection) due to concerns that technical divers were illegally salvaging the wreck. This location was an estimate provided by the Navy and the one used to place the wreck under legislative protection.

The AUCHD has the wreck site lying approximately 6 km to the west of the 2002 position. A third position, provided by a Victorian technical diver, has the vessel a further 30 km to the southwest, placing it potentially 6 km to the east of VIC/P79.[33]

This category does not include vessels known, or thought, to have sunk in the study area, but without a definite wreck location. See **Section 4.3.1** for a discussion of these shipwrecks.

[32] **Anon 1929** 'FOUNDERING OF SELJE', *The Argus* (Melbourne, Vic.:1848 - 1957), 1 April, p. 8., viewed 28 Nov 2023, http://nla.gov.au/nla.news-article3992522

[33] *Pers. Comms,* Danielle Wilkinson email with author (27 November 2023, 3:48 pm) *Re: Shipwreck advice for Otway Gas Drilling.*

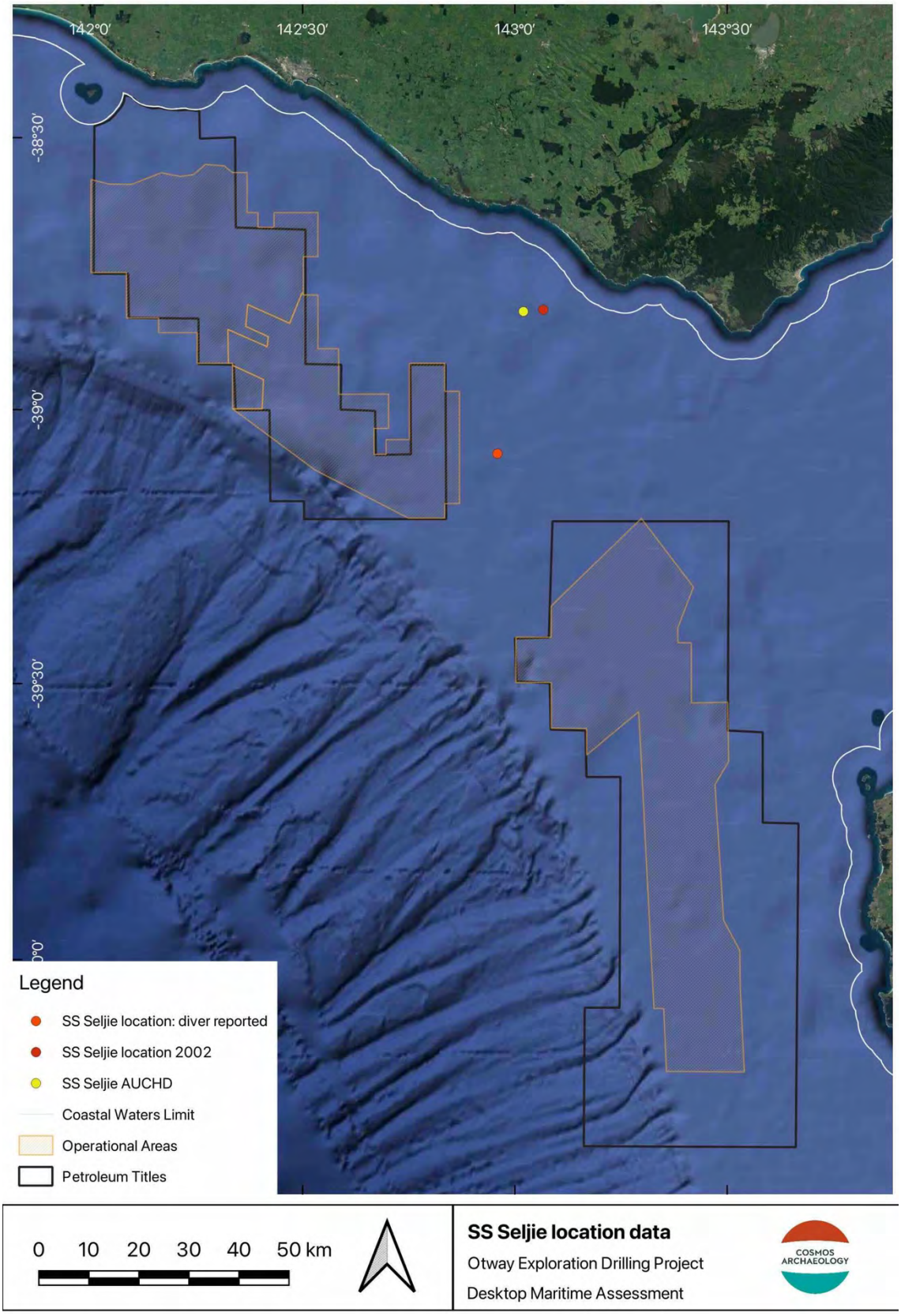


***Figure 7: Three location coordinates available for* SS Seljie.**

4.2.2 *Aircraft wrecks*

The desktop research for this report did not find any information on known aircraft wrecks lost within the study area. There is one known aircraft wreck known to have crashed in the vicinity of the study area: a twin-engine Avro Anson lost near Lady Julia Percy Island in 1944 (Figure 8).

On 15 February 1944, Avro Anson AW-878 of 2 Air Observer's School took off from Mount Gambier airfield in South Australia to carry out a navigation exercise. They were to fly from Mount Gambier to Douglas Point and then back to Mount Gambier. When the aircraft did not return to base and had made no contact, overdue signals were sent out and aircraft debris was seen on Lady Julia Percy Island. A fishing boat found small pieces of wreckage spread over a 3-mile area. The next day further wreckage was pulled from the sea including the wing tips, port aileron, the gunner's cockpit door and a Mae West life preserver. The four airmen on board have never been recovered. A memorial stone and bronze plaque commemorates the wreck and the missing airmen.[34]

[34] **Dunn, P., 2020**, *Crash of an Avro Anson into Sea near Lady Julia Percy Island off the southwest coast of Victoria on 15 February 1944***.** Article on Oz at War, available at https://www.ozatwar.com/ozcrashes/vic181.htm, accessed 27 November 2023.

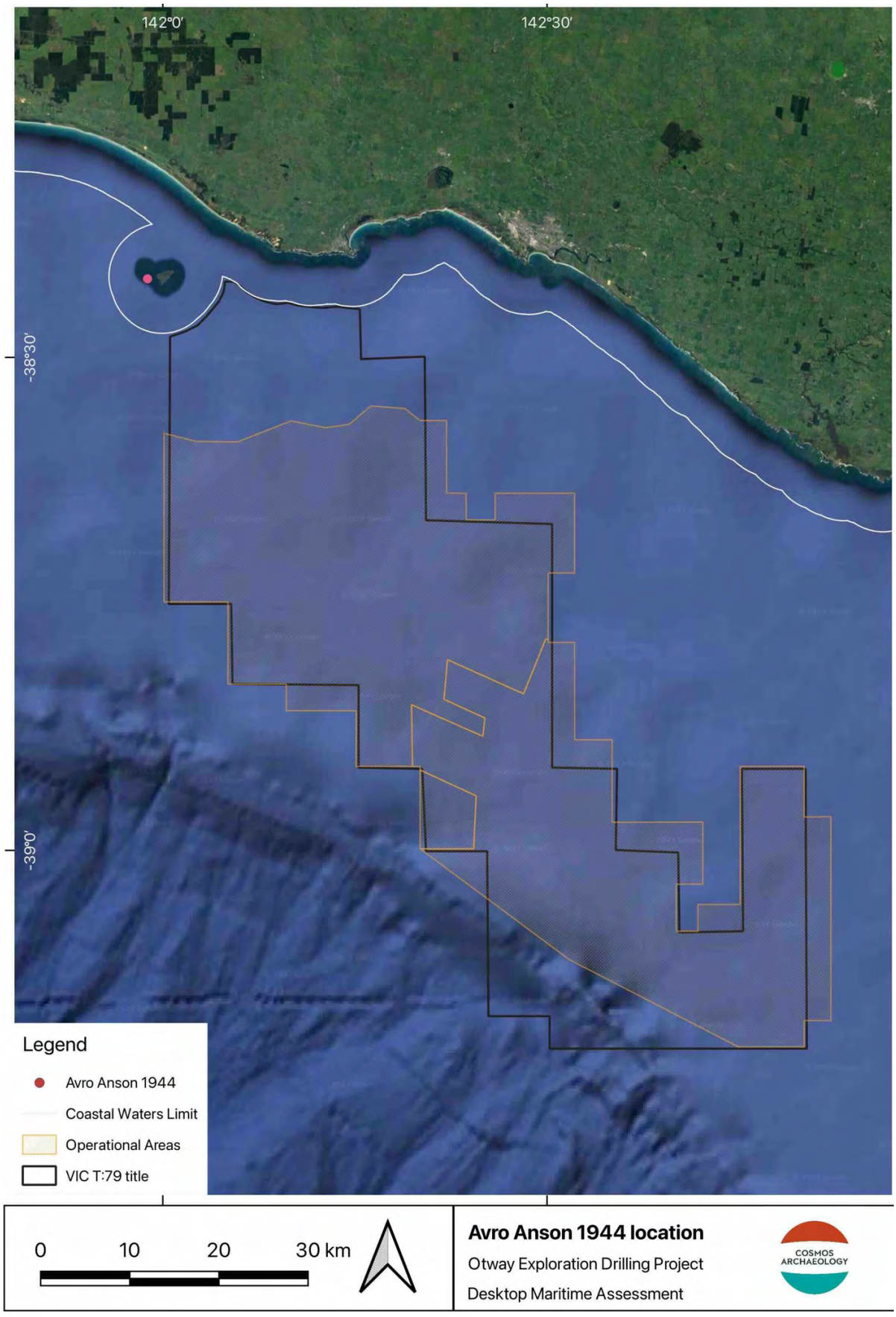


Figure 8: Location of Avro Anson wreck site 1944 from UCHD.

4.2.3 *Sea dumping*

Military ordnance related to a shipwreck or aircraft which has been underwater more than 75 years has the potential to represent an item of UCH. Ordnance that does not relate to a shipwreck may still be assessed as significant if it meets the threshold for significance under the Commonwealth significance criteria (See Section 4.4). Therefore, any ordnance or sea dumping site from WWII or earlier has the potential to be significant UCH and may require further assessment.

There are no known sea dumping sites within the study areas, however there are four known locations within the vicinity (Table 2 and Figure 9).

Table 2: Sea Dumping sites within vicinity of study areas.[35]

Name	Type	Details	Centre Coordinates (WGS 84)	Size (diameter)	Distance from study area	Source
SDG 110 Bass Strait	Ammunition	Includes 2331 boxes of detonators and 144 boxes of explosives.	-39.0292°, 142.3349°	2 km	2.8 km	AHS SD / Dept. of Defence
SDG 087 King Island	Ammunition	Cartridges, projectiles and fuses.	-39.6979°, 142.8767°	1.8 km	32 km	AHS SD / Dept. of Defence
SDC006 off King Island	Chemical munitions	1,634 tonnes of chemical ammunitions.[36]	-39.7513°, 142.5551°	11.5 km	55 km	AHS SD / Dept. of Defence
SDG 136 Victorian Coast	Ordnance and other items	Site of post WWII dumping.	-39.7513°, 142.5551°	19 km	60 km	AHS SD / Dept. of Defence

[35] **Plunkett, G., 2003** *Sea Dumping in Australia: Historical and Contemporary Aspects,* Department of Defence, Australia, available at https://www.hydro.gov.au/n2m/dumping/seadumping.pdf
[36] **Plunkett, G., 2018**, *Chemical Munitions Sea Dumping off Australia,* Department of Defence, Australia. Available at https://www.hydro.gov.au/n2m/dumping/chemical.pdf, p. 26

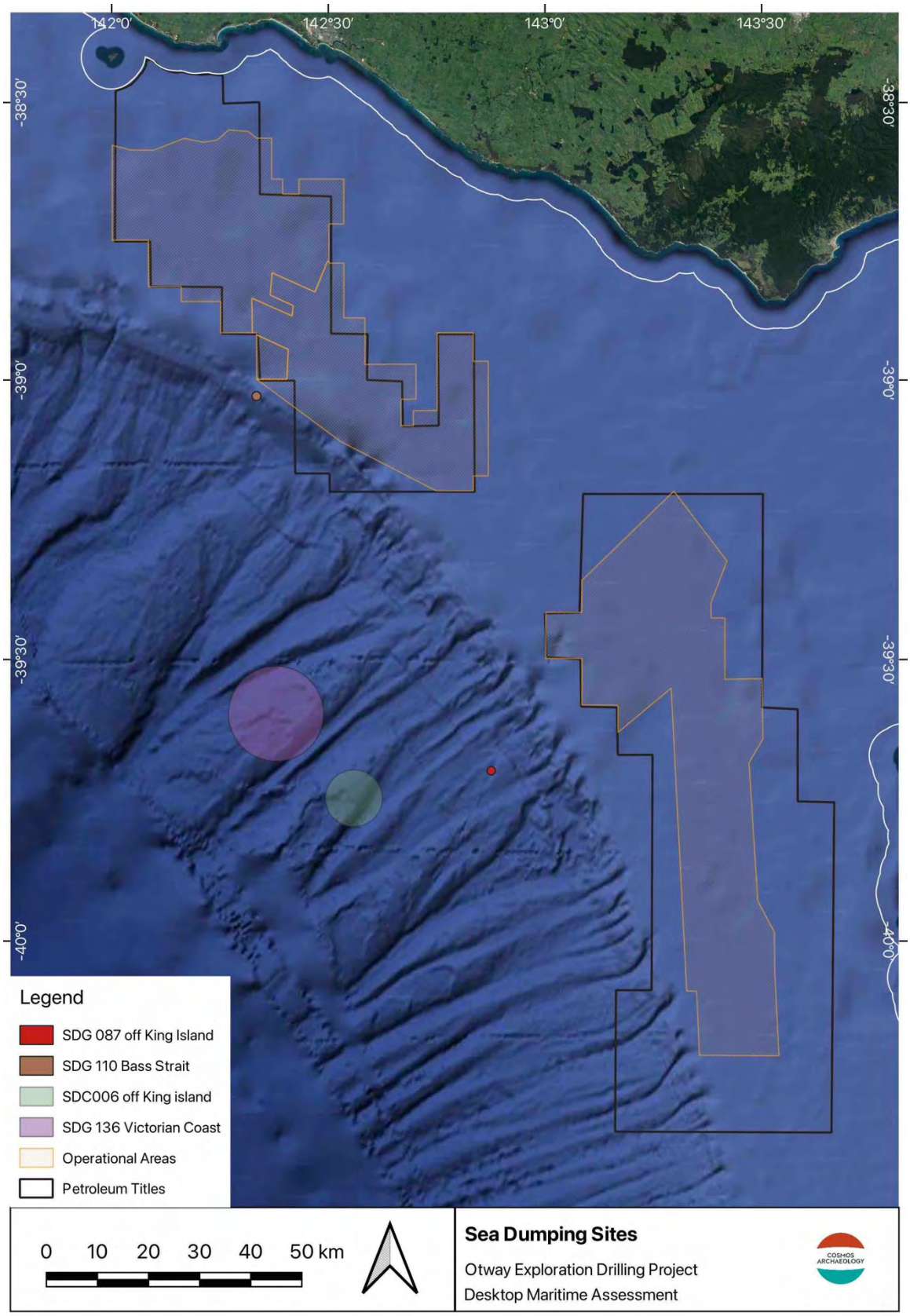


Figure 9: Sea Dumping sites within the vicinity of the study areas. (Base image: Google Satellite).

4.2.4 *Firing Range*

The search of Commonwealth's Department of Defence mapping application (uxo-map.defence.gov.au/) revealed that most of the operation area for T/49P and the southern edge of VIC P/79 overlaps with an identified Air to Air firing range used in 1954, designated 1052 King Island (Figure 10). No Defence reports are available for this site. This area has been categorised as having a slight potential to contain UXO.[37]

[37] **Department of Defence, 2023** *Defence UXO Mapping Application*, available at https://uxo.defence.gov.au/.

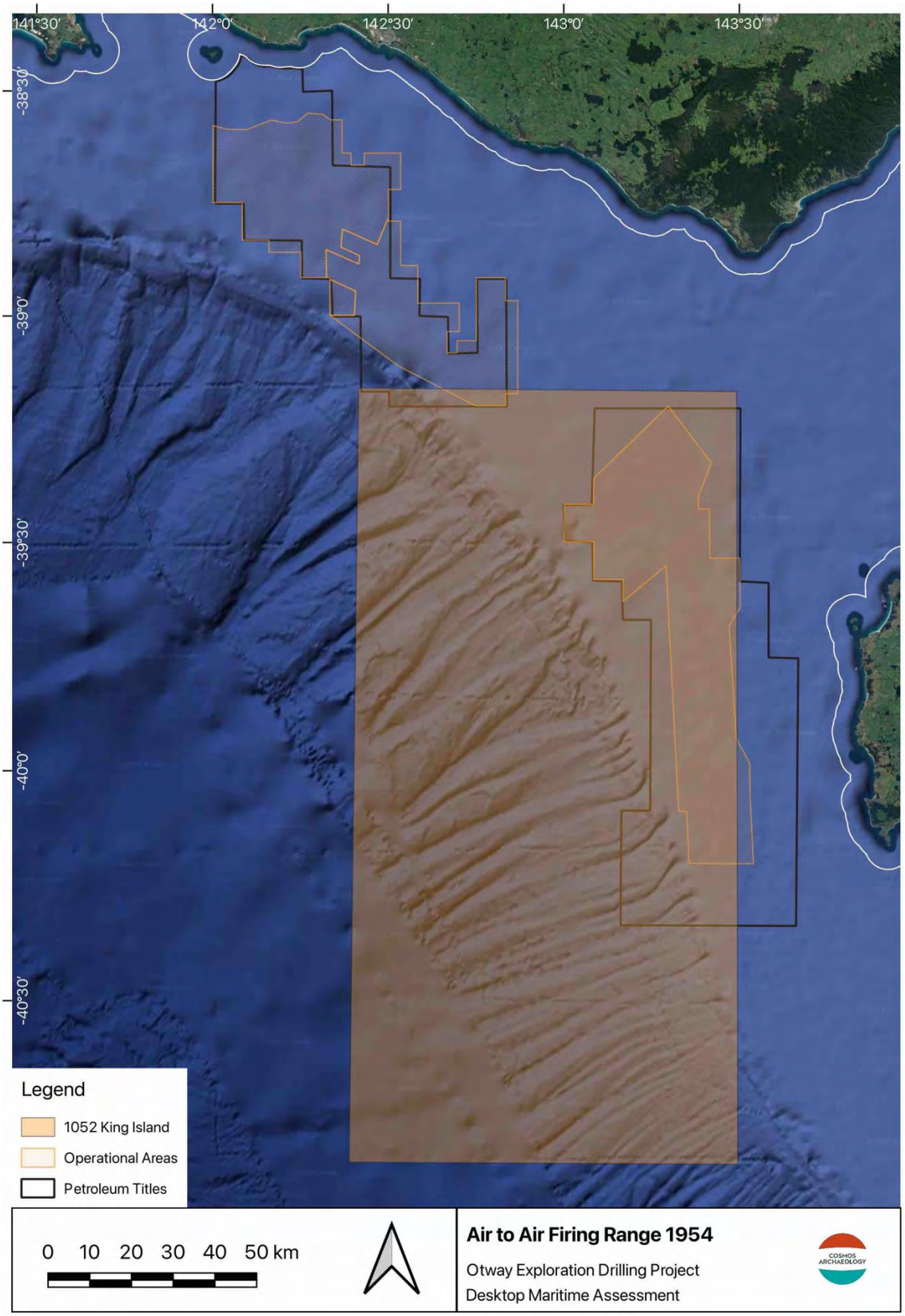


Figure 10: Designated Air to Air firing range in use in 1954; 1052 King Island.

4.3 Potential Maritime Archaeological Sites in the Study Area

4.3.1 *Shipwrecks*

Numerous ships are known to have wrecked in the waters off the coast of Victoria, off the coast of King Island and in Bass Strait. Many of these wrecks are known only from the historical record and have not been located. Additionally, there are numerous ships that were 'lost at sea' on routes that may or may not have been in the vicinity of the study area. The location of many of these wrecks is impossible to estimate, given the historical sources available, or the lack of any information on their disappearance.

An initial review of the UCHD and the VHD databases was undertaken for lost vessels using the search terms: Bass Strait, Cape Otway, Portland, Port Fairy, Warrnambool, Apollo Bay and King Island. This resulted in a list of 134 vessels. This list was further refined by using the following parameters to remove potential shipwrecks that were:

- found or located, and
- noted as being washed ashore, wrecked on a beach, inside a bay or inshore reef.

This refinement reduced the number of potential vessels to 12 shipwrecks with possible wrecking locations in the study area (Figure 11). The table below outlines those wrecks that appear either in the historical record or in the relevant databases (Table 3).

It must be noted that these vessels all have coordinates in the AUCHD that are presented as specific points for the position of shipwrecks that have not yet been found. If, for example, a ship was lost on a voyage from Portland to Melbourne and was last seen near Cape Otway, it will have been given an arbitrarily designated position expressed as a single latitude and longitude. This is not necessarily an indication of the vessel's actual wreck site.

Apart from reported shipwreck events which may have resulted in the formation of archaeological sites within the study area, a further unknown number of shipwrecks can be expected to have occurred within the study area. These could be vessels not accounted for in the local historical sources; vessels not listed on the insurance registers; small coastal craft, etcetera. Any such potential sites formed more than 75 years ago would be automatically protected under State and Commonwealth legislation.

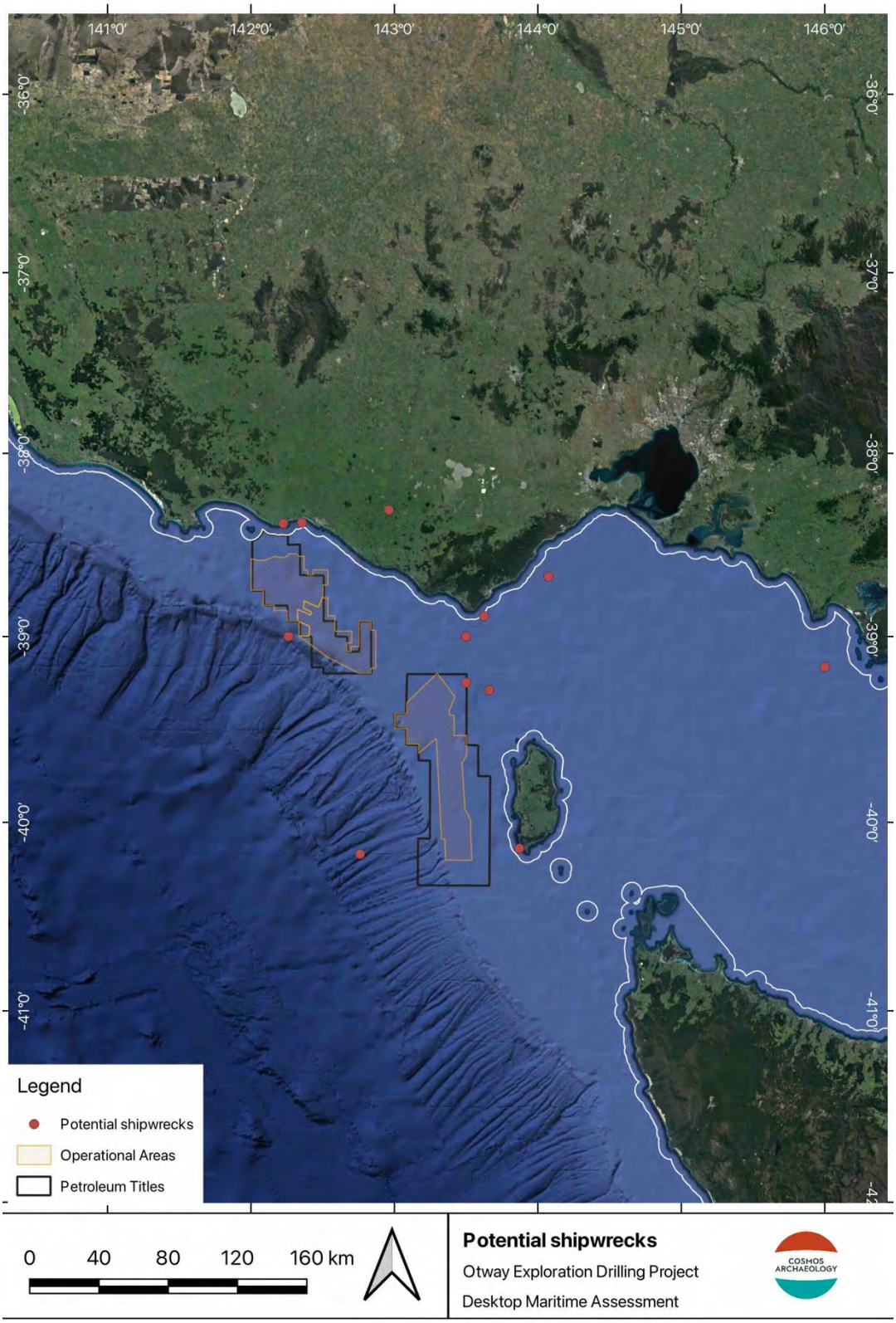


Figure 11: Potential shipwreck locations, as recorded in the AUCHD, that may be located within the study area. Note these positions are not necessarily the specific locations for the wreck site.

Table 3: List of unlocated shipwrecks that may have wrecked within the study area.

Source	Shipwreck ID UCHD / VHD	Name	Year built/where	Wrecked	Hull	Engine	Length (ft)	Tonnage	Details	UCHD Coordinates
UCHD / VHD	5998 / S70	Bat	1865 / UK	1882	Iron	sail	33.41	194	The 194-ton iron brig Bat went missing with all hands, after clearing out from Port Fairy on 30 March 1882 for a voyage to Sydney with a cargo of potatoes, bran and barley	-39.165, 146.00
UCHD / VHD	6011 / S62	Bitter Beer	UNK / AUS	1866	Wood	sail	UNK	UNK	The schooner Bitter Beer disappeared off Cape Otway in March 1866 during a heavy gale while sailing from Melbourne to Belfast (Port Fairy).	-38.38, 142.35
UCHD / VHD	6015 / S78	Black Watch	1866 / NZ	1867	Wood	sail	81.00	93	While on a voyage from Adelaide to New Zealand, the New Zealand built schooner Black Watch was abandoned after springing a leak off Cape Otway.	-39.00, 143.50
UCHD	7176	Freak	1823 / INDIA	1834	Wood	sail	64.7	103	Freak arrived from Mauritius in 1834 and was sailing to Sydney when it disappeared.	-40.17, 142.76
UCHD / VHD	6381 / S432	Madagascar	1837 / UK	1853	Wood	sail	UNK	952	Lost while voyaging from Melbourne to England with a huge cargo of gold and silver.	-38.31, 142.96
UCHD / VHD	6434 / S469	Minerva	1847 / AUS	1849	Wood	sail	60.20	UNK	Lost while transporting a cargo of gunpowder from Sydney to Portland.	-39.29, 143.66
UCHD / VHD	6486 / S517	Paul Jones	1877 / US	1886	Wood	sail	195.2	1206	Caught fire off Lorne on a voyage from Melbourne to Calcutta.	-38.67, 144.075
UCHD	7732	Southern Cross	1891 / UK	1920	Wood	sail	131	291	Travelling from Melbourne to Hobart with a cargo of benzine and disappeared. Some wreckage was found on the southwest of King Island and it is possible the vessel may have blown up or collided with a German mine.	-40.14, 143.87
UCHD / VHD	6576 / S110	SS Champion	1854 / UK	1857	Iron	Steam screw	129.4		Travelling from Portland to Melbourne, collided with the *Lady Bird* and sank within 15 minutes. One of Victoria's worst shipwreck disasters.	-38.89, 143.625
UCHD / VHD	6659 / S672	Thomas	1839 / AUS	1843	UNK	UNK	31.3	UNK	Travelling from Melbourne to Port Fairy (Belfast)	-38.385,142.225
UCHD / VHD	11032 / S655	Tubal Cain	1857 / UK	1862	Iron framed	sail	UNK	787	Collided with the CONSTANCE and sank immediately	-39.00, 142.256
UCHD / VHD	6784 / S730	W. Gordon	1866	1879	Wood	sail	118.4	398.0	Departed Cape Town heading to Adelaide, W. Gordon disappeared at sea.	-39.25, 143.5

4.3.2 *Aircraft wrecks*

The desktop research for this report did not find any information on potential aircraft wrecks lost within the study areas and none of the unlocated aircraft wrecks listed on the AUCHD are considered likely to be within the study area. These incidents would usually be clearly represented in the historical record and therefore there is low potential for this category of UCH to be present within the study area.

The closest recorded aircraft crash that has not been located is approximately 65 km to the west of the operational area of T/49P (Figure 12). In 1962, A USAF B-57 twin engine reconnaissance aircraft, crashed approximately 2.5 miles offshore between Airey's Inlet and Lorne. A fisherman reported the engines were cutting in and out as it flew overhead. A doctor is reported has having dived to the wreck site after the crash and reported the canopy was still intact indicating the airmen had not ejected.[38] The aircraft is not automatically protected under Australian legislation but due to the fact it has missing US military personnel onboard, the US Government would have an interest. However, this site is recorded as 65 km from the study area, and it is considered very unlikely this aircraft would have drifted into the study area.

[38] **Anon., 1962**, 'Two More U.S. Airmen Killed', *The Canberra Times (ACT:1926 - 1995)*, 17 October, p. 1. Available at http://nla.gov.au/nla.news-article104297461, viewed 27 November 2023.

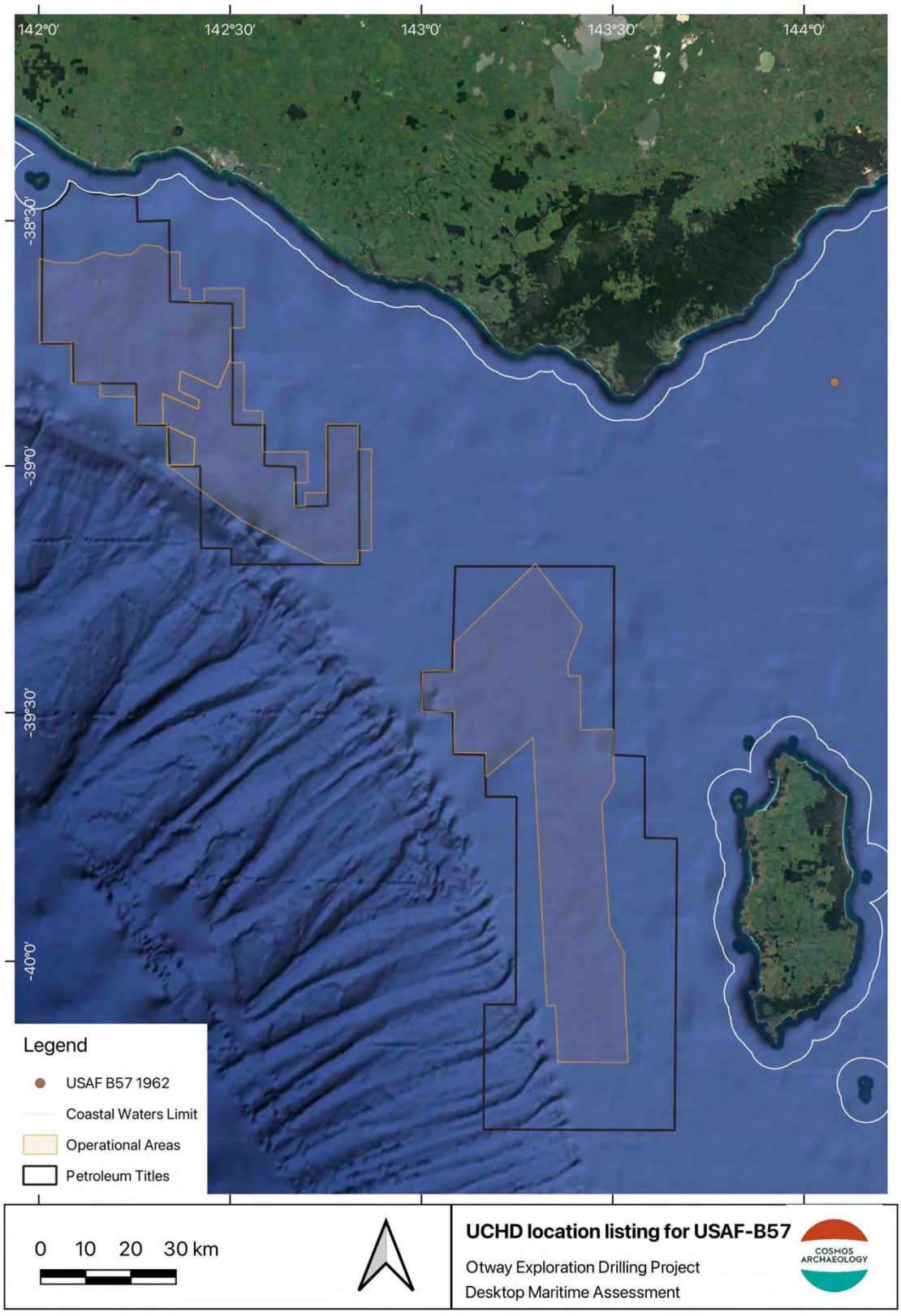


Figure 12: UCHD location for USAF B57 crash site.

4.3.3 *Sea dumping*

There are no recorded, but unlocated, sea dumping sites within the study area. Note that the likelihood of unreported dumping is possible, and likely to increase in frequency in nearshore areas.

4.3.4 *Other UCH*

Other items of UCH could include historical anchors, jettisoned cannon and other items lost overboard or transported to their location from a nearby shipwreck site. The extensive use of the area and Bass Strait by shipping since colonial times, indicates there is potential for such items to be located within the study area.

4.4 Significance Criteria

Under the Commonwealth *Underwater Cultural Heritage Act 2018*, the Minister must have regard to the following criteria in making a declaration, under subsection 17(1), 18(1) or 19(1) of the Act, that an article is of heritage significance (see subsection 22(2)). The criteria provided by the Commonwealth are:

- The significance of the article in the course, evolution or pattern of history.
- The significance of the article in relation to its potential to yield information contributing to an understanding of history, technological accomplishments or social developments.
- The significance of the article in its potential to yield information about the composition and history of cultural remains and associated natural phenomena through examination of physical, chemical or biological processes.
- The significance of the article in representing or contributing to technical or creative accomplishments during a particular period.
- The significance of the article through its association with a community in contemporary Australia for social, cultural or spiritual reasons.
- The significance of the article for its potential to contribute to public education.
- The significance of the article in possessing rare, endangered or uncommon aspects of history.
- The significance of the article in demonstrating the characteristics of a class of cultural articles.

A significance assessment is an integral stage of a heritage impact assessment. As this desktop study has not identified any known sites within the study area, a significance assessment cannot be completed. Assessments of heritage significance will need to be undertaken as part of the heritage impact assessment process, after geophysical activities have been completed and any items of potential maritime heritage have been identified within the study area.

5 PREDICTED CONDITION OF MARITIME ARCHAEOLOGICAL SITES

5.1 Introduction

The condition of any maritime archaeological resource is affected by environmental and cultural factors as well as the nature of the seabed.

With regards to the study area, the following factors will have the greatest impact on site formation processes:

- Type of event leading to presence on seabed.
- Type of seabed.
- Mechanical damage caused by waves.
- Salvage.
- Anchor and trawl drags.
- Chemical and biological degradation.

5.2 Site Environment

The predicted condition for sites in the following sections includes both sandy and rocky seabed conditions to address the most likely scenarios.

5.3 Shipwrecks

The wrecking event is the first factor that influences site formation. Depending on the reasons or forces behind wrecking, the ship may be mostly complete or extensively broken up. A vessel rarely falls or sinks because of little or no damage; it is more likely that a vessel would run aground, cause damage to the hull, and then sink with part of the vessel intact and part damaged. Often the force of initial impact is sufficient to break the vessel and cause considerable damage. The vessel would then sink in large pieces, depending on the damage, or remain stuck until it is broken up by physical or human forces. Another reason for a wrecking event is fire which, depending on the extent, can cause a considerable amount of breaking up and scrambling of the ship material before it reaches the seabed.

It is reasonable to assume that a large majority of potential shipwrecks within the study area foundered. In this scenario, the vessel's structural remains would remain highly intact.

The seabed upon which a shipwreck lies has the greatest effect on site formation processes, particularly with wooden hulled vessels, while other factors also having contributory effects.

With regards to vessels coming to rest on a sandy seabed, the archaeological site will usually be formed in the following manner:

- Vessel comes to rest on the seabed.
- The wreck will settle into the seabed up to a certain depth, dependent on the resistance of the sediments and the weight of the vessel. It is a general rule, especially with iron hulled vessels, that wrecks sink into softer sediments up to their waterline.
- Parts of the vessel which protrude above the water may be salvaged for re-use. Non-perishable, accessible and high value parts of the vessel situated underwater may also be removed. It is a general rule that the deeper the water in which a vessel sinks and the more remote the location, the less

likelihood of it being salvaged at the time of loss. Rapidly changing technology in recent times, however, has allowed salvage at greater depths.

- Biological processes will commence immediately on a timber wreck, attacking the exposed timbers and other organic elements of the wreck. This will lead to a weakening of the hull's integrity and eventually organic elements above the seabed will disappear.
- If it is in shallow water, wind generated waves would act upon the broader surfaces of a wreck thereby breaking down exposed components into sections. These sections will orientate themselves to prove the least resistance to the direction from which the waves are more commonly generated.
- Large waves will raise sediments into suspension, thereby resulting in cultural objects, including the hull of the wreck, sinking further into the marine sediments. The older the wreck the deeper it would be buried, unless a hard-alluvial substrate is present close to the surface of the seabed against which the wreck will rest.
- Cultural behaviour will have the effect of scrambling wreck sites and masking their presence. Dragging anchors, scallop dredgers and trawling will spread wreck material and may also result in the 'ploughing up' of buried cultural material.
- Salvaging will have a destructive effect on the hull and organic elements that have survived below the seabed, as well as by removing artefacts and creating a scatter of remaining material around the wreck site.

A wreck coming to rest on a rocky bottom would eventually collapse under its own weight as it would not be able to sink into the seabed. With such a collapse the integrity or coherence of the wreck begins to dissipate. Pockets of surviving structure and other artefacts can remain well preserved amongst boulders, gullies and depressions.

Assessing the condition or, more precisely, the structural integrity of the shipwrecks is of relevance because this can provide an indication of the nature and scale of the obstacle that could affect exploration drilling activities. Shipwreck condition also relates to its 'detectability'. Several factors influence the condition of shipwrecks, the primary ones being the materials used in the construction of the vessel, the bottom type upon which the wreck rests, the depth of the wreck and its age.

With regards to detecting wreck sites, the two most common remote sensing techniques that are applied would be magnetometer and side scan sonar surveys. The side scan sonar would be more useful in detecting high- and low-profile wreck sites while the magnetometer is best employed in searching for sites with a high ferrous content which are partially buried or resting on a rocky bottom.

The 'younger' the wreck is, and the deeper it sank in the water column, the better preserved it would be. Also, a wreck resting on a sandy bottom would be better preserved than if it was resting on a rocky bottom. In conjunction with these factors, the method and type of construction of the vessel is the most important variable when it comes to assessing the condition of a wreck.

Iron/Steel Hulled Wrecks

If resting on a sandy bottom it could be expected that the hull integrity of the wreck would be relatively intact. The hull along midships may have collapsed but the stern and bow sections may still be upright or heeled to one side. The engine components, if any, would be largely intact and *in situ*. Such vessels on a rocky bottom would be relatively disarticulated, though

the components of the vessel would still be present. Iron/steel wrecks on either bottom type can be detected using a magnetometer. Locating such a wreck site on a rocky bottom with side scan sonar would be difficult but the opposite is true with such wrecks on a sandy seabed.

Wooden Hulled Wrecks with Engines

In most cases the hulls of such wrecks would have disappeared. In situations, however, where the wreck rests on a sandy bottom, sections of the hull may have been preserved under the sand. The engine components of such wrecks would be visible. A magnetometer can detect such wrecks on either bottom type. Such wrecks on a rocky bottom would be difficult to detect with side scan sonar but the opposite can be true with such wrecks on a sandy seabed. However, engine components can be partially or completely covered by sediments and would appear as scattered dumped debris or a linear mound.

Large Tonnage (> 100 ton) Wooden Hulled Wrecks (Sail)

In most cases the hulls of such wrecks would have disappeared. In situations, however, where the wreck rests on a sandy bottom, significant sections of the hull may have been preserved under the sand. There would be enough ferrous material present, such as anchors, chain and winches, for such wreck sites to be detected using a magnetometer. The identification of such wreck sites using side scan sonar would be difficult as it could appear as scattered dumped debris, unless the cargo was non-perishable, in which case a linear mound may be visible.

Small Tonnage (< 100 ton) Wooden Hulled Wrecks (Sail)

The same as for large tonnage vessels except that the size of the target and the amount of ferrous material present would be considerably less. It would be difficult to detect using a magnetometer and may be mistaken for dumped material debris from side scan sonar imaging.

5.4 Aircraft Wrecks

While the potential for aircraft wrecks is considered low, this discussion on site formation processes of aircraft wrecks is included in the case of an unexpected find.

There are significant differences between the site formation of underwater aircraft wrecks and shipwrecks due to the vastly different construction, in terms of both shape and material used, as well as the depositional process, i.e., the wrecking event. These are two key determining factors that will influence site formation.[39] The wrecking event for aircraft is the first factor affecting site formation, and can take many forms, from deliberate scuttling on the water's surface and dumping of material to high impact crashes and slower, more controlled ditching events. Aircraft dumping was considered 'fairly commonplace' following WWII, and significant dump sites exist near Sydney and Greencape in NSW, along with sites near Brisbane in QLD, and Rottnest Island in WA.[40] Aircraft wrecked because of military combat may have sustained significant damage before crashing into the water. Aircraft sitting on the surface of the water may have also been attacked and sunk through military action.[41] The

[39] **Burgess, A., 2013**, Underwater Aviation Archaeology: What is its Place and Value Within Archaeology, and in Particular Maritime Archaeology?, Masters thesis, Faculty of Humanities, University of Southampton, United Kingdom.
[40] **Smith, T., 2004,** Plane Sailing: The archaeology of aircraft losses over water in NSW, Australia. Bulletin of the Australasian Institute for Maritime Archaeology. Vol. 28:113-124.
[41] **Wilkinson, D., 2012,** Underwater aircraft sites in Australia: a summary of what has been learnt so far. Bulletin of the Australasian Institute for Maritime Archaeology. Vol. 36:31-35.

initial integrity of the aircraft hull depends largely on the wrecking incident, and is influenced by numerous factors, such as the speed and angle of impact upon entry.

Upon entering the water, the shape of the aircraft and the depth of the water column will determine how the aircraft comes to rest on the seafloor. Aircraft hulls and wings are typically made of lightweight material, such as aluminium or even wood and fabric, while machinery and components such as engines will weigh significantly more and contain more ferrous elements. This disparity in weight will cause some aircraft to invert on descent, coming to a rest on their back. Other aircraft, such as single engine WWII fighter planes built with engines at the front, will sink to the bottom nose first. As the aircraft sinks in the water column, it may break up further, with the loss of wings or tail sections being sometimes noted.[42] Once on the seafloor, the combination of increased weight and galvanic corrosion due to differing metals means that larger components, such as engines, may detach and fall away from the rest of the structure. The depth of the wreck has a significant role in its deterioration, as aircraft sunk in shallower waters are more at risk from wave surge and corrosion due to warmer water temperature and increased oxygen levels.[43]

The seafloor composition will determine the burial environment for a sunken aircraft which in turn will have a large impact on the survival and condition of the aircraft. Aircraft are generally lighter than ships and are therefore less likely to penetrate the seabed, and less of the hull may be buried. As with shipwrecks, it is assumed that aircraft that are quickly buried in an anaerobic, stable environment, deep underwater will be better preserved than those in shallow inshore environments, particularly those with hard seabed and heavy surf.[44]

The composition of alloys used in aircraft construction can have a significant impact on the rate of deterioration once an aircraft has sunk. Aluminium, the primary material used in aircraft construction, is highly reactive. When alloyed with metals like copper, its corrosion rate is accelerated. This leads to a phenomenon known as ‘pitting,’ where perforations appear as the aluminium corrodes.[45] Water with a higher acidity will cause more rapid deterioration.

Although the site formation processes for sunken aircraft display large variation between sites, a general flow of deposition can be summarized:

- An aircraft enters the water, either through a violent and high-impact uncontrolled crash, slower deliberate bailout, or through dumping/scuttling on the surface. Aircraft may have sustained damage prior to entering water, such as those suffering mid-air explosions and aircraft shot down in combat.
- As the aircraft sinks, its orientation and hull integrity will change depending on its construction. Wings and tail may separate, and heavier components may invert an aircraft.
- The aircraft will settle on the sea bottom. Aircraft deposited on hard substrate may not be buried, while those settling on sandy, muddy, or silty bottoms may partially sink into the seafloor.
- In certain cases, salvaging operations may take place immediately, including the removal of high value components. In other cases, illicit salvaging, looting, treasure hunting, and souvenir taking can damage wrecks.
- Aircraft materials will begin to deteriorate over time, due to corrosion as well as natural and cultural external factors.

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[42] **Wessex Archaeology, 2008,** *Aircraft Crash Sites at Sea: A Scoping Study,* Prepared for English Heritage.
[43] *Op. Cit*., **Smith, 2004.**
[44] *Op. Cit*., **Wessex Archaeology, 2008.**
[45] *Op. Cit*., **Burgess, 2013**.

- Corrosion will cause deterioration of metals, particularly aluminium, and may cause heavier ferrous components to detach.
- Human activities such as dredging, fishing and recreational boating can further disperse sites by dragging fishing nets and anchors across sunken aircraft.

5.5 Sea dumping

The location of sea dumping of ammunition, boats, chemicals and other materials have been recorded and made available by the Australian Government Department of Defence and Australian Hydrographic Service. The location and amount of the material dumped is documented; however, the exact location of the dumped material may differ from that recorded due to the depth of water in which the material was dumped and/or accuracy of the location provided of the dump site.

Information is provided by the Australian Hydrographic Service, including links to spreadsheets which contain information of specific sites. The Department of Defence also has a publicly available searchable mapping application that lists known dumping sites. The sites are grouped into five main categories, including ammunition, boats, chemicals and other materials as well as dumping grounds. Each record includes information such as latitude and longitude, date of dumping and description of materials. In addition, information on sea dumping has been made public through Australian Notices to Mariners since 1982.

Due to the relatively recent dumping events (after World War II) and that the ammunition items largely consist of iron, it is likely that the ammunition is still largely intact. They would be large and sturdy in their construction, dumped in a complete state. This would mean that all dumping items would physically still be intact, and as such, would be easily identifiable on the seabed.

If the ammunition was formed in a mound, that is, they were discarded as the vessel was stationary, they may have good relief against the seabed, especially a rocky seabed, and may be detected in SSS data as a mound. It is more likely that the dumps are low lying and of low relief from being discarded from a moving vessel, in which case they may be identifiable as a scatter like a rocky seabed. Ammunition, drums and demolition materials on the seabed or only buried under shallow sediment would still be largely intact, making them easier to detect.

6 POSSIBLE IMPACTS AND MITIGATION MEASURES

As the exact locations of maritime heritage in relation to the study area and the extent and detail of the works is still to be determined, the impacts presented here are of a general nature until further assessments including geophysical surveys have been completed.

This desktop assessment has found there is potential for maritime cultural heritage sites to be within the study area. As a result, there is potential for these sites to be impacted because of the works.

Cultural heritage sites can be damaged because of direct and indirect impacts by a variety of processes. Damage is categorised as mechanical, chemical or biological:

- *Mechanical damage* is where the physical integrity of the site is affected by the impacts of wave, surge, current, sand abrasion as well as cultural behaviour such as dredging, dragging anchors or vessels running aground. Increases in mechanical damage to a site can result from increases in tidal flows and increased exposure of sites to sediment erosion.
- *Chemical damage* relates primarily to the corrosion of the metal components of a site. Changes in pH levels, salinity, light levels (heat) and water movement can dramatically increase electrochemical (corrosion) activity for metal component immersed in seawater.
- *Biological damage* occurs where organic materials, such as wreck or wharf timbers, are exposed to biological organisms such as marine borers and bacteria, and in some cases vegetation. In relation to marine heritage sites, increased biological damage will occur if hitherto buried sites, or partially exposed sites, are further exposed, due to sediment erosion.

If a marine heritage site suffers from one or more of the above categories of damage it will become further 'scrambled'. The term 'scrambled' refers to alterations made to a site that make it more difficult to interpret/understand – that is, it results in the loss of information whether it be the loss/deterioration of physical fabric or loss of context (the relationship between artefacts). The term 'transformation' is used to describe alteration of material (such as breaking/pulverising, corrosion or marine borer damage) and the term 'translation' is used to describe the displacement (removal and/or dispersal) of material.[46]

The scrambling of a marine heritage site reduces its overall cultural heritage significance. The degree of the reduction of cultural significance for a particular heritage site is related to the scale and extent of damage.

As the works details have not been refined at the time of writing, some general potential impacts are outlined below.

6.1 Potential Direct and Indirect Impacts

6.1.1 *Direct Impacts*

Direct impacts include mechanical contact with a maritime heritage item or site during the installation or removal of infrastructure. Direct impacts can also include the placement of anchor points, anchors dropped by barges and work vessels, anchor chains dragging across the seabed or other items laying across maritime heritage items. Such events have the potential to crush, damage and scramble components of maritime heritage. Scraping the

[46] **Ward, I., P. Larcombe and P. Veth 1999** "A New Process-based Model for site formation" *Journal of Archaeological Science* Volume 26 p.561.

concretion off an item can remove protective accretions of marine concretion. In the case of ferrous items, this exposes the metal to salt and oxidisation occurs, which rapidly increases the rate of corrosion resulting in the loss of strength and integrity of the metal. Exposure of organic items can expose them to marine life such as teredo and other marine worms that will directly damage the fabric of the item and weaken the structure.

Dredging or removal of the seabed may result in discrete items of shipborne debris going unnoticed and being lost within the volume of dredged material. This can cause direct damage to the fabric of the site but also disturb relationships (contexts) between structures, artefacts and their surroundings.

6.1.2 *Indirect Impacts*

Indirect impacts includes scouring. Scouring can occur from both the addition and subtraction of an item on the seabed. These actions can change the water flow and currents around maritime heritage sites and alter the levels of sediments. In some cases, this can be a positive result with accretion generally protecting a site from marine borers, disturbance or removal or rapid chemical change. However, scouring can reduce the sediments around and over maritime heritage and expose them to new and/or increased levels of decay. If scouring exposes part, or all, of an item of maritime heritage that has previously been protected by an anaerobic layer of sediment, it provides access to the item for marine borers and increases the oxygen and salinity. It can also expose the item to strong currents placing more pressure on weakened structures.

6.2 Potential Mitigation

Mitigation measures aim to ensure that maritime heritage within the study area would not be materially affected.

6.2.1 *Further investigation*

A geophysical survey should be undertaken that is designed to detect any items of maritime heritage within the general study area and specifically in the areas of potential direct impacts to the seabed. This would include side scan survey (SSS) and magnetometer surveys at a minimum. These surveys should be designed to ensure 100% coverage of the area of interest. The resolution for the side scan should be no greater than 1m. This detailed geophysical survey will provide a more complete picture of items of potential maritime heritage and allow for preparation of further management plans.

6.2.2 *Statement of Heritage Impact (SoHI)*

Direct physical or indirect impacts on all potential items of maritime heritage should be avoided, where possible. Once the detailed geophysical survey is complete a Statement of Heritage Impact (SoHI) should be undertaken.

- Review the geophysical data for items of maritime heritage.
- Build on the historical research from this desktop assessment.
- Assess the significance of any sites that are to be impacted or are within the project area.
- Further non-destructive investigation such as ROV inspections and/or archaeological diving surveys maybe required of identified anomalies that are within or close to areas of infrastructure implementation or seabed disturbance

that may potentially be archaeological items to confirm their identity, locations and significance.

- Propose mitigation measures based on the significance of the site/s. This could include changing design, archaeological recording, excavation and/or conservation.

7 CONCLUSION

7.1 Summary of findings

This desktop study has identified no known shipwrecks, aircraft wrecks or sea dumping sites within the study area. There is one potential shipwreck that may be in the vicinity of the study. *SS Seljie* has several coordinates listed for its location, the closest of which is 6 km from the study area.

The review of the heritage databases and historical sources identified 12 shipwrecks that could potentially be located within the study area. The accuracy of the information detailing their wrecking location, and the coordinates assigned to specific wrecks in heritage databases, varies from case to case. It is considered possible that any of these wrecks, or none of them, may be located within the study areas. Note that the frequency of shipwrecks increases with proximity to shore and decreases further offshore where navigational hazards are less.

A further unknown number of shipwrecks can be expected to have occurred within the study area. These could be vessels not accounted for in the local historical sources; vessels not listed on the insurance registers, or small coastal craft as examples.

Other items of maritime heritage including historical anchors, jettisoned cannon and other items lost overboard or transported to their location from a nearby shipwreck site could also be within the study area. The extensive use of the area and Bass Strait by shipping since colonial times, indicates there is potential for such items to be located within the study area.

If an item of maritime heritage is discovered, it is a legal requirement to notify the relevant state or Commonwealth heritage authorities with details of the find as soon as possible.

7.2 Notification procedure

A person who discovers a shipwreck, aircraft, or other cultural heritage in Commonwealth waters is legally obliged to notify the appropriate authorities as soon as practicable under Part 3 Section 40 of the *Underwater Cultural Heritage Act 2018.* The Department of Climate Change, Energy, the Environment, and Water (DCCEEW) must be notified if any unknown or un-located shipwreck or aircraft sites are identified through any of the works. This can be done through an online form for the 'Notification of discovery of underwater cultural heritage', available through: *https://environment.gov.au/shipwreck/public/forms/notification.do?mode=add*.

Victoria and Tasmania each have a Commonwealth delegation to manage Commonwealth waters off their respective coastlines. When a notification of a discovery of an item of UCH is made through the AUCHD, it will go to the relevant state practitioner to evaluate.[47]

In Victoria, the State Practitioner and Commonwealth delegate is:

The Principal, Maritime Archaeology
Heritage Victoria
Department of Transport and Planning

Tel: (03) 7022 6390
Email: heritage.victoria@delwp.vic.gov.au

[47] *Pers. Comm.* D. Wilkinson email with author (27 November 2023, 3:48 pm) *Re: Shipwreck Advice – Otway Drilling Project.*

In Tasmania, the State Practitioner and Commonwealth delegate is:

Section Head
Historic Heritage
Tasmania Parks and Wildlife Service

GPO Box 1751
Hobart Tas 7001
Tel: 1300 TASPARKS (1300 8277 27)

While the line of division between Victoria and Tasmania Commonwealth delegation is not clear, in consultation with the Victorian and Tasmanian practitioners, the notification procedure for the project will be as follows:[48]

For VIC/P79 any finds should be recorded in the AUCHD for the Victorian Practitioner and Commonwealth delegate to evaluate. Any queries regarding potential items of UCH within the operation areas of VIC/P79 can be addressed to the Victorian Practitioner for assistance.

For T/49P any finds should be recorded in the AUCHD for the Tasmanian Practitioner and Commonwealth delegate to evaluate. Any queries regarding potential items of UCH within the operation areas of T/49P can be addressed to the Tasmanian Practitioner for assistance.

[48] *Pers. Comm*. D. Wilkinson email with author (27 November 2023, 3:48 pm) Re: Shipwreck Advice – Otway Drilling Project. **and** *Pers. Comm*. M. Nash email with author (4 December 2023, 7:14 am) *Notification procedure for UCH Commonwealth waters for Otway Basin Exploration Drilling.*

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APPENDIX P CETACEAN SURVEILLANCE PROGRAM

ConocoPhillips Australia

T/49P and VIC/P79 Cetacean Surveillance Program Report



Report to ConocoPhillips Australia SH1 Pty Ltd and

ConocoPhillips Australia SH2 Pty Ltd

June 2023

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ConocoPhillips Australia

Cetacean Surveillance Program Report

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Fathom Pacific acknowledges the Bunurong People, the Traditional Owners of where we reside. We acknowledge Aboriginal and Torres Strait Islander peoples as Australia's First Peoples, and we acknowledge the Traditional Owners of the customary lands, seas, skies and waterways in which we work, travel and meet.

Fathom Pacific acknowledges the designer of the Torres Strait Islander flag, the late Mr Bernard Namok.

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Executive Summary

ConocoPhillips Australia SH1 Pty Ltd and ConocoPhillips Australia SH2 Pty Ltd (ConocoPhillips Australia) are proposing to conduct petroleum exploration activities, involving seabed surveys (non-seismic) and drilling, within petroleum titles T/49P and VIC/P79 (permit areas) in the offshore Otway Basin, south of Victoria and west of King Island, Tasmania.

ConocoPhillips Australia contracted Fathom Pacific Pty Ltd (Fathom Pacific) to conduct aerial surveillance for marine mammals within the two petroleum titles, and along offshore continental slope waters, to inform impact assessment and mitigation considerations in the development of an Environment Plan (EP) for exploration activities.

This report covers the period from August 2022 to June 2023 and builds on previous aerial surveys conducted for ConocoPhillips Australia during the Sequoia 3D Marine Seismic Survey (MSS) between July and October 2021 in T/49P. The survey program is continuing beyond the initial term (August-April) into May and June 2023 due to the ongoing detection of blue whales.

The results of this study provide contemporary context on the temporal and spatial distribution of whales in the region. Twelve (12) cetacean species were conclusively identified during aerial surveys, with blue whales, humpback whales and sperm whales being the most commonly sighted species. Blue whales (presumed pygmy blues) were sighted between October and April. The October onset of blue whale occurrence is earlier than historical published data for this species in the region. [Noting that unpublished data from the ConocoPhillips Australia 2021 survey program detected blue whales as early as September in T/49P]. Blue whale numbers (40 individuals recorded in April) peaked later in the season than previously reported. Blue whales were frequently observed feeding and observations were typically associated with co-occurrence of large surface krill swarms throughout the study area. Observations of blue whales in the vicinity of King Island and extending east into Bass Strait have provided new information on the distribution of this species in the broader region.

Observations of migratory humpback whales support an emerging understanding that a migratory pathway exists through central and western Bass Strait that may connect with the eastern Australian migratory corridor. The majority of humpback whale observations were associated with feeding behaviour and commonly involved multi-species assemblages of dolphins, fur seals and seabirds.

Sperm whales were regularly sighted in the present study. Considering the low survey effort that targeted known sperm whale habitat (offshore continental slope waters), this suggests frequent habitat use by sperm whales. There have been no dedicated sperm whale surveys in the region, but our anecdotal observations suggest that sperm whale numbers in the present study were higher than other surveys off eastern Victoria which sample known sperm whale habitat.

There was no consistent spatial pattern in the distribution of whales within the petroleum titles. Within VIC/P79, blue whales occurred throughout offshore and inshore segments and spanned east to west. Feeding was observed throughout the area. In T/49P, blue whales were observed

along transects and further northwest and northeast into Bass Strait (beyond T/49P). Temporal overlap in the presence of humpback whales and blue whales was detected in VIC/P79 in the months of November–December.

Whales in general, and blue whales in particular, have high energy demands that must be met by feeding, with their distributions closely tied to the distribution of prey. For baleen whales, prey in this region is predominantly krill. Furthermore, the distribution of krill is closely linked to spatial and temporal patterns in primary production by phytoplankton, which in turn is closely linked to the supply of nutrients and oceanographic processes. The oceanographic environment of VIC/P79 is likely to be primarily influenced by the Leeuwin and Zeehan Currents and upwelling processes associated with the Great Southern Australian Coastal Upwelling System (GSACUS) which is documented to generate enhanced productivity and provide foraging grounds for blue whales. While these same processes may play a role in T/49P, other complex associations with the Flinders Current, the Subtropical Convergence and localised productivity enhancements (possibly amplified by topographic interactions with the West Tasmania Canyons Key Ecological Feature (KEF)) are expected to impinge on the area.

The present study indicates that the notion of whale 'seasons' must be viewed with caution for species other than perhaps humpback whales that generally have more predictable migratory movements. In light of the various synergistic influences of complex oceanography on the prey field which can attract wide-ranging and constantly feeding species such as blue whales and given ecological shifts that may be related to climate change, there is a need to focus not only on temporal staging of activities but also on adaptive management and mitigation measures to minimise risk of impact to cetaceans across all seasons. A multiple-lines-of-evidence surveillance approach, linked to a responsive, best practice adaptive management framework is recommended.

1. Introduction

1.1. Background

Acoustic impacts to cetaceans are a key consideration for the permitting of oil-and-gas exploration and operational activities. The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) regulates the industry and permitting is managed via NOPSEMA's acceptance of a proponent's Environment Plan (EP).

Fathom Pacific was initially contracted by ConocoPhillips Australia to complete a study of the distribution and abundance of cetaceans within petroleum title VIC/P79 in the western area of the Otway Basin. The study was later expanded to include the continental shelf break southeast of VIC/P79 and one pre-existing transect line at the eastern boundary of petroleum title T/49P (Figure 1-1). Aerial surveys spanned from August 2022 to June 2023.

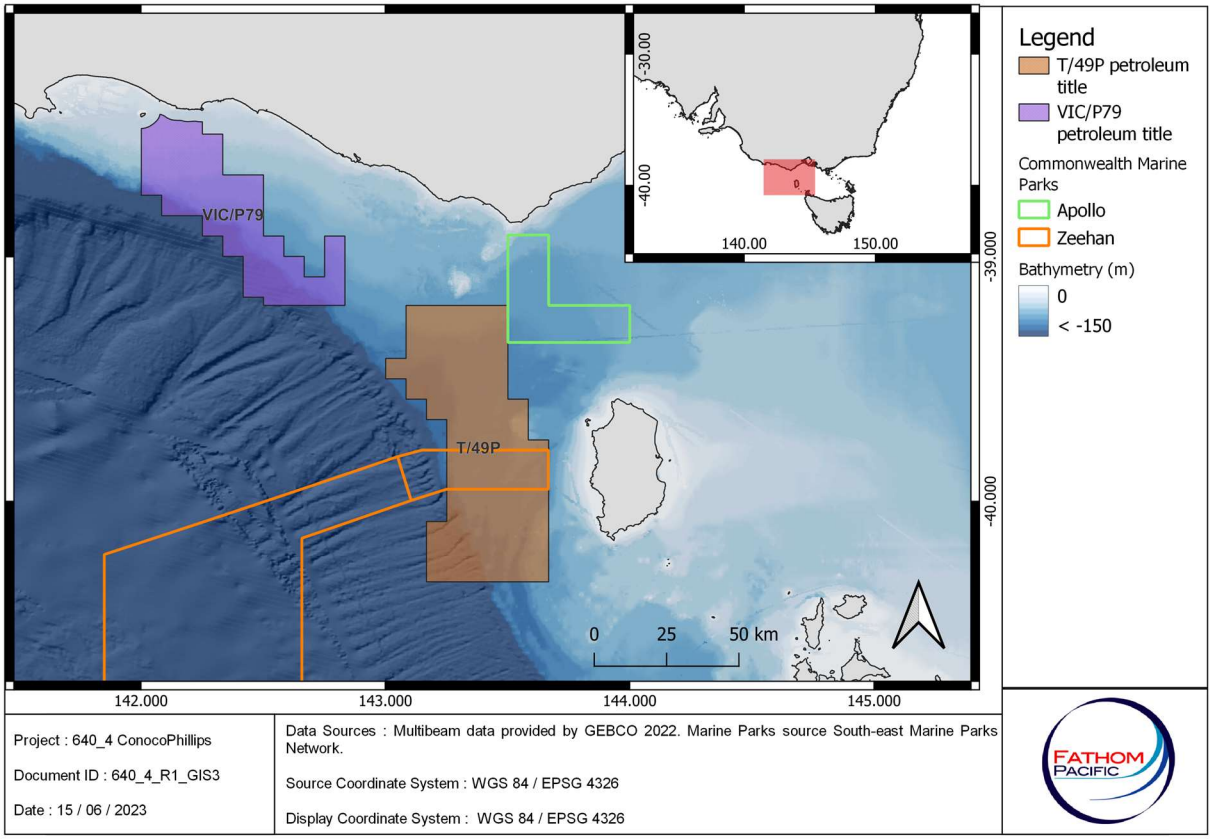


Figure 1-1 Study area.

The Otway Basin is an onshore and offshore basin located in south-eastern Australia. It extends 500 km from Cape Jaffa in South Australia to the north-west of Tasmania, spanning an area approximately 155,000 km^2 (Geoscience Australia, 2019). The offshore Otway Basin includes ecophysical habitats of the continental shelf, continental shelf break, continental slope and extends into deep oceanic waters. The eastern boundary of the basin extends past Cape Otway in Victoria and runs parallel to the west of King Island (Geoscience Australia, 2019).

The Otway Basin lies beneath part of the South-east Marine Region, an area which incorporates Commonwealth waters of western Bass Strait. Western Bass Strait is influenced by complex oceanographic processes involving an extensive upwelling system and interaction between

several currents including the Leeuwin, Antarctic Circumpolar, the East Australian, Flinders and Zeehan currents (Ridgway, 2007; Ridgway and Condie, 2004; Rogers et al., 2013). These processes can contribute to areas of increased productivity in the region and provide conditions for high biodiversity (Commonwealth of Australia (CoA), 2015; Rogers et al., 2013). Oceanographic processes are discussed further in Section 3.5.

In western Victoria, the region is divided further into provincial bioregions - the Western Bass Strait Shelf Transition for inshore waters and the West Tasmania Transition for offshore waters (CoA, 2015). Key Ecological Features (KEFs) in these regions include the Great Southern Australian Coastal Upwelling System (GSACUS) and the West Tasmania Canyons. The GSACUS is a predictable seasonal upwelling which supports high productivity in the region by transporting nutrient rich, cold water to the sea surface. It forms part of a regional system of upwellings, but it is the most prominent and is a recognised blue whale foraging area (CoA, 2015). The West Tasmania Canyons are situated on the continental shelf offshore from western Tasmania and extend northwards. Due to their influence on currents, ability to trap waters and produce sediment and nutrient rich upwellings, they contribute significantly to productivity in the area which can result in biodiversity hotspots (CoA, 2015). The deep oceanic areas of the Otway Basin are also influenced by oceanographic features and processes of the Subtropical Convergence and associated eddies encroaching from the Great Australian Bight.

Gill (2002) conducted aerial surveys between 1998-2001 which focused on blue whales and aimed to measure seasonal presence/absence and distribution. The survey area extended from Robe, South Australia in the west to Port Campbell, Victoria to the east and covered the entire continental shelf between these locations, encompassing an estimated area of 12,000 km^2. Most of the aerial surveys were timed to align with the summer-autumn upwelling seasons, with a reduced effort during winter and spring. Consequently, surveys were not conducted at regular intervals across the year or seasons. A total of 354 blue whales were recorded on aerial surveys between December 1998 and April 2001, all of which were located on the continental shelf. Gill (2002) observed feeding behaviour in 36% of blue whale sightings and recorded 48% of sightings were in proximity to surface krill swarms. This led to the conclusion that a link between the GSACUS, presence of krill and blue whales exists and the probability the adjacent waters to the Bonney and Otway Coasts are important feeding grounds for blue whales. This region is the world's only northern boundary current ecosystem (the Flinders Current) and Ward et al. (2006) also identified the importance of upwelling processes to the production and distribution of small pelagic fishes that are key to the diets of southern bluefin tuna. While the GSACUS is a key regional driver of production, Kämpf and Kavi (2017) identified widespread phytoplankton blooms throughout the region which is in support of a single extensive upwelling system, that could support predator populations.

Gill et al. (2011) completed 69 aerial surveys between January 2002 and May 2007 in which six upwelling seasons occurred. The survey area extended from the Great Australian Bight (west of the Eyre Peninsula) in South Australia to Cape Otway in Victoria and was divided into three zones: western, central, and eastern. Transects usually extended from <1 km off the coast to ~5 km offshore of the 200 m shelf break. The study used blue whale sightings from aerial surveys and a range of biophysical habitat variables to assess habitat selection, distribution, and relative abundance of blue whales. Findings from this study showed a trend in blue whale distribution in the western zone with presence commencing November to December. A south-eastward movement of blue whales to the central and eastern zones was

observed in January to April. Gill et al (2011) also suggested distribution of euphausiid prey, *Nyctiphanes australis*, is the key influencing factor of blue whale distribution. This was based on the similarities in the distribution of both species, observed blue whale feeding behaviour and knowledge of the species' ecology. The 2011 study also supported the Gill (2002) assessment that this area is an important foraging area for blue whales.

Mustoe (2002) conducted aerial surveys in Bass Strait for Esso Australia in 2001-2002. These surveys also focused on blue whales but primarily covered areas east of King Island in Bass Strait, however some transects west of King Island were completed. No blue whales were observed in the area west of King Island, however there were sightings between the south of King Island and the north-west of Tasmania.

Survey transects for the 2022-2023 ConocoPhillips Australia Cetacean Surveillance Program in VIC/P79 were selected to partially overlapped areas surveyed by Gill (2002) and the eastern zone surveyed by Gill et al (2011) extending from Cape Nelson to Cape Otway in western Bass Strait. The remaining transects in VIC/P79 were positioned in previously unsurveyed areas to provide data specific to the petroleum titles. Transect lines surveyed by Mustoe (2002) were limited on the west of King Island but likely intersected transects surveyed in T/49P, either in the 2021 or 2022-2023 surveys. The ConocoPhillips Australia 2022-2023 Cetacean Surveillance Program maintained consistent and regular effort for aerial surveys with two flights completed per month from August 2022 to June 2023, with the exception of one September flight missed due to unfavourable weather and one flight aborted due to unexpected low cloud (12 January 2023).

1.2. Objectives

The objectives of 2022-2023 Cetacean Surveillance Program were to:

- Provide aerial observation data on the occurrence of cetaceans in petroleum titles VIC/P79 and T/49P, with opportunistic observations elsewhere.
- Detect the timing of the onset, peak and downturn of blue whale occurrence within VIC/P79 and T/49P.
- Gather information on the presence of southern right whales (SRW) along the Victorian coast.
- Provide data that leverages historic records to contemporise the baseline of knowledge on spatial and temporal distributions of cetaceans in the region to support EP development, and to contribute to government data repositories and research.

2. Methods

2.1. Aerial survey transects

Aerial surveys focused on providing contemporary cetacean data for VIC/P79 and a section of T/49P. Connecting transects and transit legs allowed for additional observations and further regional context (Figure 2-1). Parallel transects were spaced at five-kilometre intervals over the survey area, standardised against current Victorian marine mammal aerial survey methodologies. A distance of 2.5 kilometres either side of the aircraft was identified as the limit for small cetacean detection which made each transect a five-kilometre-wide observation swath. A single survey was also conducted whereby an additional coastal transect was included to search for the presence and onset of migration of southern right whales during their calving season.

Transect lines were designed to overlap historical transects previously flown by the Blue Whale Study where possible. The purpose of this overlap was to add value to existing datasets through replication of historical methods.

Due to a marked increase in krill observations during the third aerial survey, an additional four transect lines were added to the survey plan (transects SB01, SB02, SB03 and T06 in T/49P). These transects were completed after refuelling on each survey day and transited north/south through VIC/P79 from Warrnambool to the continental shelf break then southeast along the shelf break to the southeast corner of T/49P, before turning north along the pre-existing transect T06 (Figure 2-1). This portion of the survey was added to gather data to inform on cetacean presence outside of the permit areas and to understand the influence of the shelf break area on the presence of surface krill across the continental shelf.

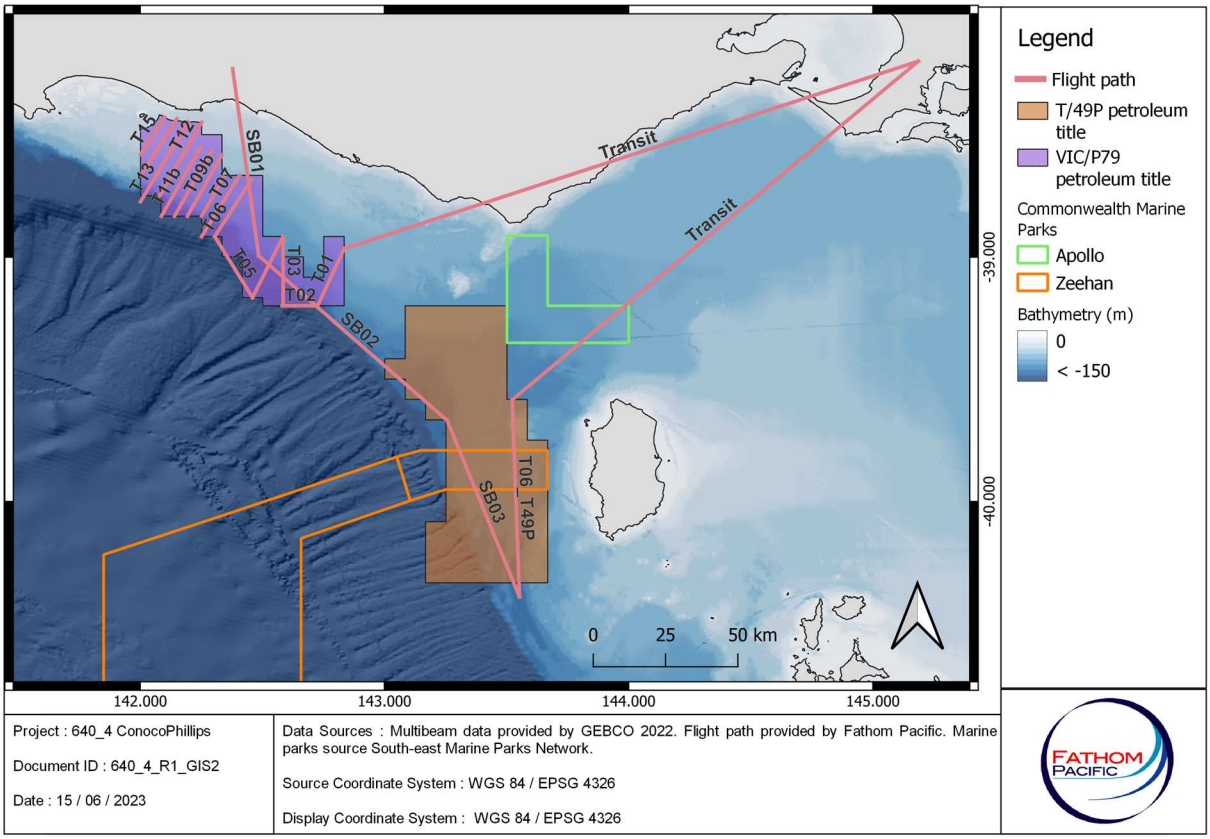


Figure 2-1 Flight plan showing transect lines, lease areas and Commonwealth Marine Parks.

2.1.1. Design considerations

The survey design focused on covering potential operational areas that may be affected by sound propagation associated with exploration activities. There was also consideration given to surveying outside of the petroleum titles to obtain a broader spatial understanding of regional trends. A maximum wind speed of 10 knots and a minimum cloud base of 800 metres were set as minimum requirements for surveys. Altitude was set at 300 metres over Commonwealth waters and 500 metres over Victorian state waters, air speed was 130 knots during transects. A maximum time limit of 10 minutes was imposed for orbiting over cetaceans to minimise disturbance and allow for detection of southern right whale calves (survey one) based on their known diving behaviour (Nielsen et al., 2019).

All surveys were flown after careful consideration of weather forecasts with a particular focus on wind speed and direction, cloud cover, cloud height and likelihood of precipitation.

2.1.2. Temporal coverage

Flights were flown from August to June, allowing the program to explore seasonal variations of key cetacean species, primarily blue whales, within the region. In this report results are presented according to flight date and season. A summary of the temporal coverage of the aerial surveys is presented in the table below (Table 2-1). A single June survey was flown and included here as part of the 'Autumn' survey period.

Table 2-1 Table summarising temporal coverage of all aerial surveys.

Flight date	Season
8/08/2022	Winter
26/08/2022	Winter
13/09/2022	Spring
2/10/2022	Spring
19/10/2022	Spring
4/11/2022	Spring
17/11/2022	Spring
2/12/2022	Summer
29/12/2022	Summer
24/01/2023	Summer
7/02/2023	Summer
16/02/2023	Summer
14/03/2023	Autumn
26/03/2023	Autumn
3/04/2023	Autumn
23/04/2023	Autumn
10/05/23	Autumn
2/06/2023	Autumn

2.1.3. Victorian waters

With the exception of the first survey, transits to and from the take-off and landing location (Tyabb) and to and from the refuelling location (Warrnambool), crossed Victorian waters (coast to three nautical miles seaward). During these transit periods an altitude of 500 metres was maintained, as per Victorian State Government (Marine Mammals) Wildlife Regulations 2019. Casual off-effort observation was maintained to collect opportunistic sightings of cetaceans during these transits. The exception to these observations was the inclusion of a single southern right whale (SRW) dedicated coastal survey. The SRW survey comprised of two segments: Point Lonsdale to Cape Otway (Segment One) and Port Fairy to Port Campbell (Segment Two). These efforts transited over the Victorian coast with observers looking out to sea. When a SRW was detected, the aircraft would break from the transect line to orbit the animal(s) for no longer than 10 minutes to acquire a GPS waypoint and obtain photo identification imagery. If a whale or whales displayed any signs of disturbance, orbiting was immediately aborted. No behavioural disturbances were observed during these efforts.

These SRW focused efforts were discontinued after survey one on 8 August 2022, following consultation with the Department of Energy, Environment and Climate Action (DEECA).

2.2. Observation program

2.2.1. Permits

Due to the need for the aerial survey program to cross Victorian State waters a DEECA permit was acquired in February of 2023. This permit allowed the survey aircraft to operate over Victorian State waters at a minimum altitude of 300 metres. The permit is held by [redacted], reference number: 10010604.

In addition to the DEECA Victorian State waters permit, this program also operated under an Australian Marine Park Activity Permit issued by the Director of Marine Parks at Parks Australia and the Department of Climate Change, Energy, the Environment and Water (DCCEEW). This permit is held by [redacted], reference number: 2021-00089-1. This permit allowed for the surveys to fly uninterrupted over the Apollo and Zeehan Marine Parks.

2.2.2. Aircraft

The aircraft used for each survey was a Cessna 337, registration VH-FSA or VH-LSZ (Figure 2-2). This make of aircraft was selected based on its wide use globally for similar projects, notably north Atlantic right whale surveys. These aircraft have remarkable in-air stability, twin engines, large windows, a high wing and an excellent safety record. Pilots used for these surveys had extensive experience in aerial cetacean surveillance.



Figure 2-2 Survey aircraft, Cessna 337 VH-FSA.

2.2.3. Observations

The aerial surveillance team was comprised of one lead observer and two experienced observers, one of which also performed the role of data recorder. The two most experienced observers were each equipped with a DSLR camera fitted with a 400 mm lens and were responsible for identifying species, photographing targets, estimating abundance, directing the pilot as required and narrating observations to the data recorder. For surveys conducted from 17 November 2022 onwards, observers used Suunto® clinometers to record the inclination angle of a sighting from the plane, allowing for reprojection of the target's position during post-processing of data. The data recorder used a Garmin Montana GPS to track the flight and record waypoints during sighting events and populated two field datasheets, one being for sighting records, the other to record transect and transit observing effort. The sightings datasheet (Appendix 1) included fields for species, sighting waypoints, number of individuals per sighting, behavioural state, sighting cue and direction of travel. The effort datasheet (Appendix 2) recorded timing of transects, observer details and environmental conditions per transect. When a cetacean detection was made, details from the event were collected using one of two modes depending on the type of event.

2.2.3.1. Passing mode

Passing mode was used if the target could be identified from the transect line. This mode required the observer to inform the data recorder of the event and to mark a waypoint when the target was perpendicular to the aircraft. At the same time, the observer measured the vertical angle to the target using a clinometer and provided the data recorder with the sighting details which included species, sighting cue, abundance, observed behaviour and direction of travel.

2.2.3.2. Closing mode

Closing mode was used when a large whale of unconfirmed species, a blue whale or a significant feeding event was observed. In these instances, the aircraft broke from the transect line to determine species and to record a waypoint near to the target. Once species was confirmed, photographed and abundance estimated, the aircraft returned to the transect line and continued the survey.

2.2.4. Taxa identification

Sighted fauna was identified to species level wherever possible. Species identification during aerial surveys can be challenging, particularly for small and/or cryptic species. In cases where the species identification was not immediately obvious inflight, orbiting of the animal(s) would commence and diagnostic details and photographs would be acquired. At the completion of a flight and after post-flight data and image back-up had been completed, imagery and observational details relating to unidentified cetaceans would be isolated and examined by in-house taxonomic specialists. This involved scrutinising of imagery and use of visible diagnostic features of animals for comparison to the literature in an attempt to reach a species level identification. If species identification remained unclear, a small image and data package was sent to external taxonomic specialists. This team of specialists comprised of three internationally recognised specialists who had familiarity with cetacean species likely to be present within the survey area(s). Feedback from this team often but not always resulted in identification to species level. Where a species level identification was not possible the animal

would be assigned a morphospecies identification accompanied by comments relating to probability of species.

2.2.5. Body Condition of Large Whales

Body condition scoring was focussed exclusively on blue whales and only remarked upon if observations of animals presented in poor condition. Scoring was based on observations made in real time and during post-survey inspection of imagery. Methods of body scoring described by Wachtendonk et al. (2022) were adopted and applied to Fathom Pacific's existing body scoring criteria definitions.

Body scoring definitions:

Good body condition

- Dorsal ridge somewhat visible but not pronounced.
- Well-rounded appearance.
- No vertebrae visible.
- No scapular visible.
- No post cranial depression.

Moderate body condition

- Definite, pronounced dorsal ridge.
- Some vertebrae visible.
- No scapular visible.
- No post cranial depression.

Poor body condition:

- Definite dorsal ridge.
- Multiple vertebrae visible.
- Scapular visible.
- Clear, post cranial depression.



Figure 2-3 Examples of blue whale body conditions. Images by Fathom Pacific.

2.3. Data and imagery management

All data collected during the aerial cetacean surveillance program were downloaded and backed-up upon completion of each survey day. These data were then processed through a strict QAQC system before being approved for upload to Fathom Pacific's inhouse spatial relational database (CetaMAPS). Where possible, blue whale sightings were supported with imagery. These images (as well as all other sighting imagery) were assigned image pathway links within the database to ensure ease of access for future querying of the database.

2.4. Data analysis

Data were analysed using R version 4.1.0 (R Core Team, 2018). Observations were subsetted to identify key trends for species of interest for this report. Data analysis uses only data recorded while on effort.

Data were subsetted by taxa, including cetacean taxa and other species observed during the aerial surveys. Key taxa of interest for this report include the humpback whale and blue whale, and the temporal and spatial distribution of these species was analysed and discussed to understand seasonal trends and highlight key distribution areas. Where appropriate, other whale taxa observed during surveys were also discussed.

Analysis of observation were completed to:

- Understand diversity and taxa richness.
- Study temporal distribution of sightings (used to understand presence of seasonal trends).
- Study spatial distribution of sightings.
- Compare humpback whale and blue whale temporal and spatial distribution and potential links to surface krill observations.
- Compare observed behaviours.

2.5. Data reporting

Regular data reporting was required during the project period. This involved raw data exports, as well as written reports to fulfill permit requirements such as reporting to government agencies, and animal ethics committees. Survey updates were also provided to relevant state government departments by ConocoPhillips Australia. A comprehensive report detailing survey results from flights over the Zeehan and Apollo Marine Parks will be prepared for the Director of Marine Parks upon completion of all surveys.

3. Results and Discussion

3.1. Survey Details

A total of 17 aerial surveys (Figure 3-1) were flown between 8 August 2022 and 2 June 2023. One survey was abandoned mid-flight, due to unexpected low cloud across the survey area. The results presented below include on-transect data and off-transect (i.e., incidental) data.

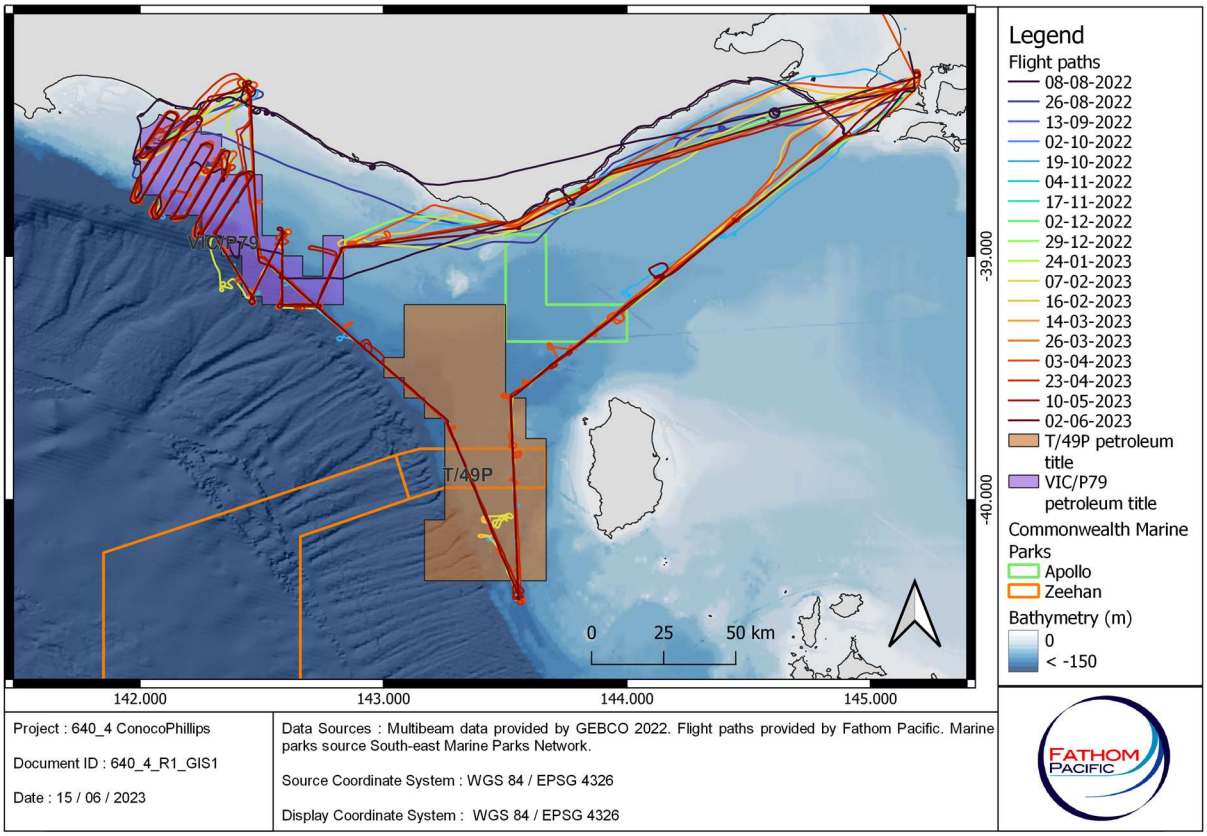


Figure 3-1 Flight paths flown during aerial surveys with the Zeehan and Apollo marine parks and VIC/P79 and T/49P lease areas shown.

A summary of the time spent on effort and the area covered during surveys between August 2022 and June2023 (inclusive) is presented in the tables below (Table 3-1 and Table 3-2).

Table 3-1 Survey statistics.

Total minutes on effort	3665 minutes
Total distance surveyed	13,174.39 km
Total area surveyed on effort (km^2)	64,383.26 km^2

Table 3-2 Table summarising temporal distribution of flights and key flight statistics.

Date	Season	Total survey time on effort (minutes)	Total distance surveyed (km)	Total area surveyed whilst on effort (km^2)
8/08/2022	Winter	178	595.437	2909.902
26/08/2022	Winter	116	410.998	2008.546
13/09/2022	Spring	101	391.959	1915.502
2/10/2022	Spring	238	751.029	3670.278
19/10/2022	Spring	224	751.029	3670.278
4/11/2022	Spring	213	791.931	3870.165
17/11/2022	Spring	199	791.931	3870.165
2/12/2022	Summer	235	791.931	3870.165
29/12/2022	Summer	199	791.931	3870.165
24/01/2023	Summer	222	912.850	4461.099
7/02/2023	Summer	216	791.931	3870.165
16/02/2023	Summer	225	791.931	3870.165
14/03/2023	Autumn	219	706.525	3452.790
26/03/2023	Autumn	216	791.931	3870.165
3/04/2023	Autumn	220	791.931	3870.165
23/04/2023	Autumn	212	791.931	3870.165
10/05/2023	Autumn	204	763.596	3731.694
02/06/2023	Autumn	189	763.596	3731.694

Temporal distribution of area surveyed during each flight across the program is shown in Figure 3-2. The number of total sightings recorded in each flight was variable and the distribution between petroleum titles (Figure 3-2), shows that most sightings were recorded in VIC/P79, as influenced by the study design and the different number of transects flown within each. In both regions, recorded whales were classified as belonging to three main groups: humpback whales, blue whales and other whale taxa, aggregated in Figure 3-3.

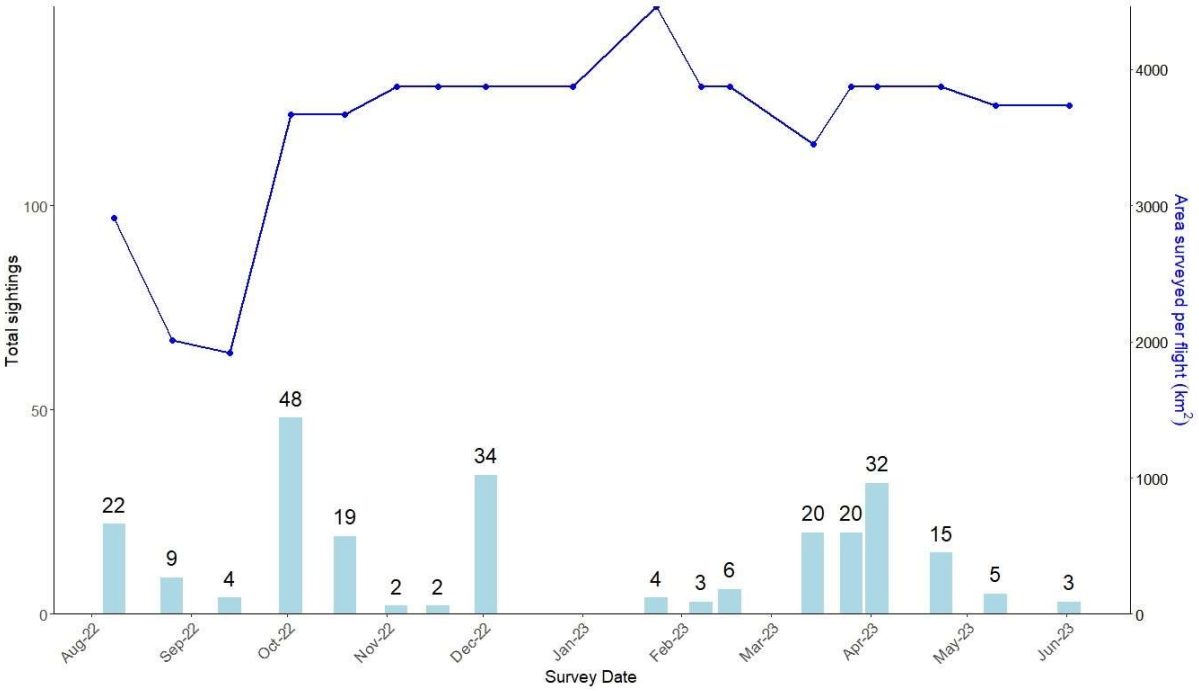


Figure 3-2 Total area surveyed during each flight (blue line) and number of whale sightings recorded during a flight.

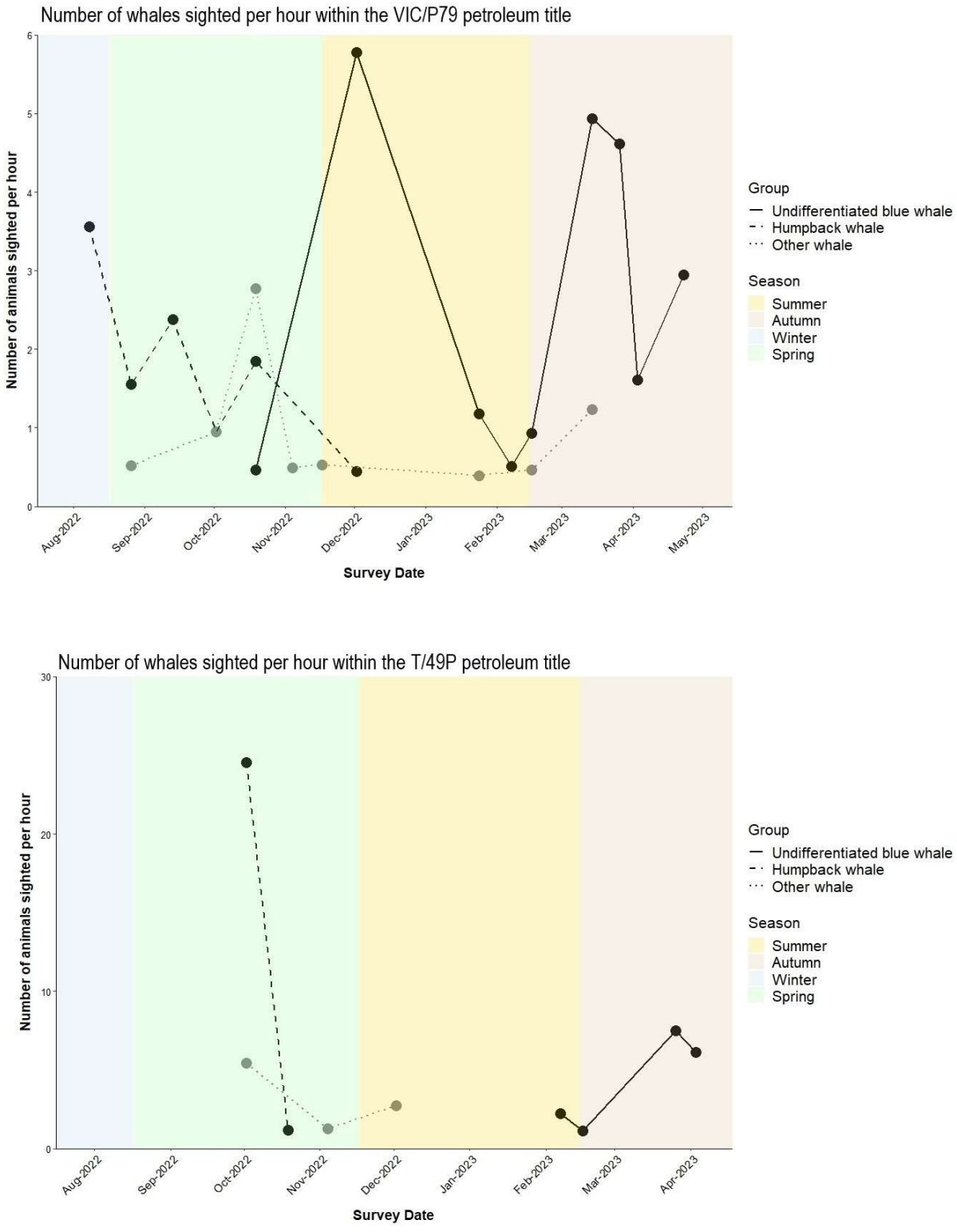


Figure 3-3 Number of sightings recorded per hour during the survey period in the two lease areas, VIC/P79 (top) and T/49P (bottom).

3.2. Cetacean species richness

Cetaceans were detected on every survey flight in varying numbers across the survey area and nearby waters (Figure 3-4 and Figure 3-5). A total of 12 cetacean species were recorded within or near to VIC/P79 and T/49P, including:

- blue whale (presumed pygmy blue)
- southern right whale
- fin whale
- sei whale
- humpback whale
- Bryde's whale
- dwarf minke whale
- sperm whale
- killer whale
- long-finned pilot whale
- bottlenose dolphin
- common dolphin

In addition to the above species, a number of observations were made where species level identification was not possible. These sightings were either too distant, too brief or lacked key diagnostic features during the observation and within imagery. To ensure these observations were captured, all unidentified cetaceans were categorised into the following criteria:

- unidentified large whale
- unidentified small whale
- unidentified rorqual
- unidentified beaked whale and
- unidentified dolphin.

These data entries were often accompanied by a brief description of the observation which allowed for further consideration during the QAQC data process.

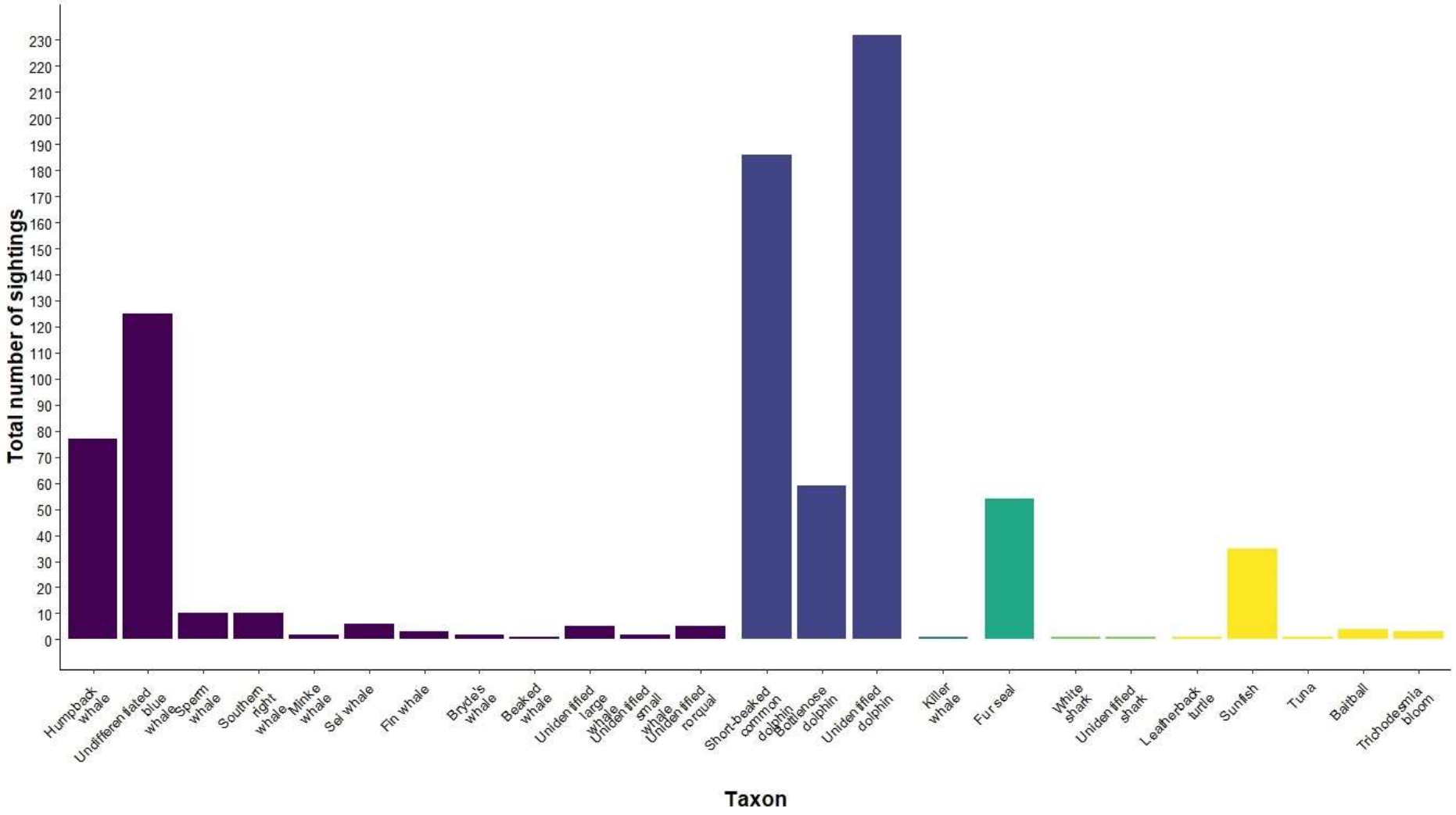


Figure 3-4 Total number of sightings per taxa and other observations of interest recorded across all aerial surveys. Each whale sighting represents one whale, each dolphin sighting represents a pod of animals. Different colours represent taxon groups (whales, dolphins, other marine mammals, other relevant ecological features).

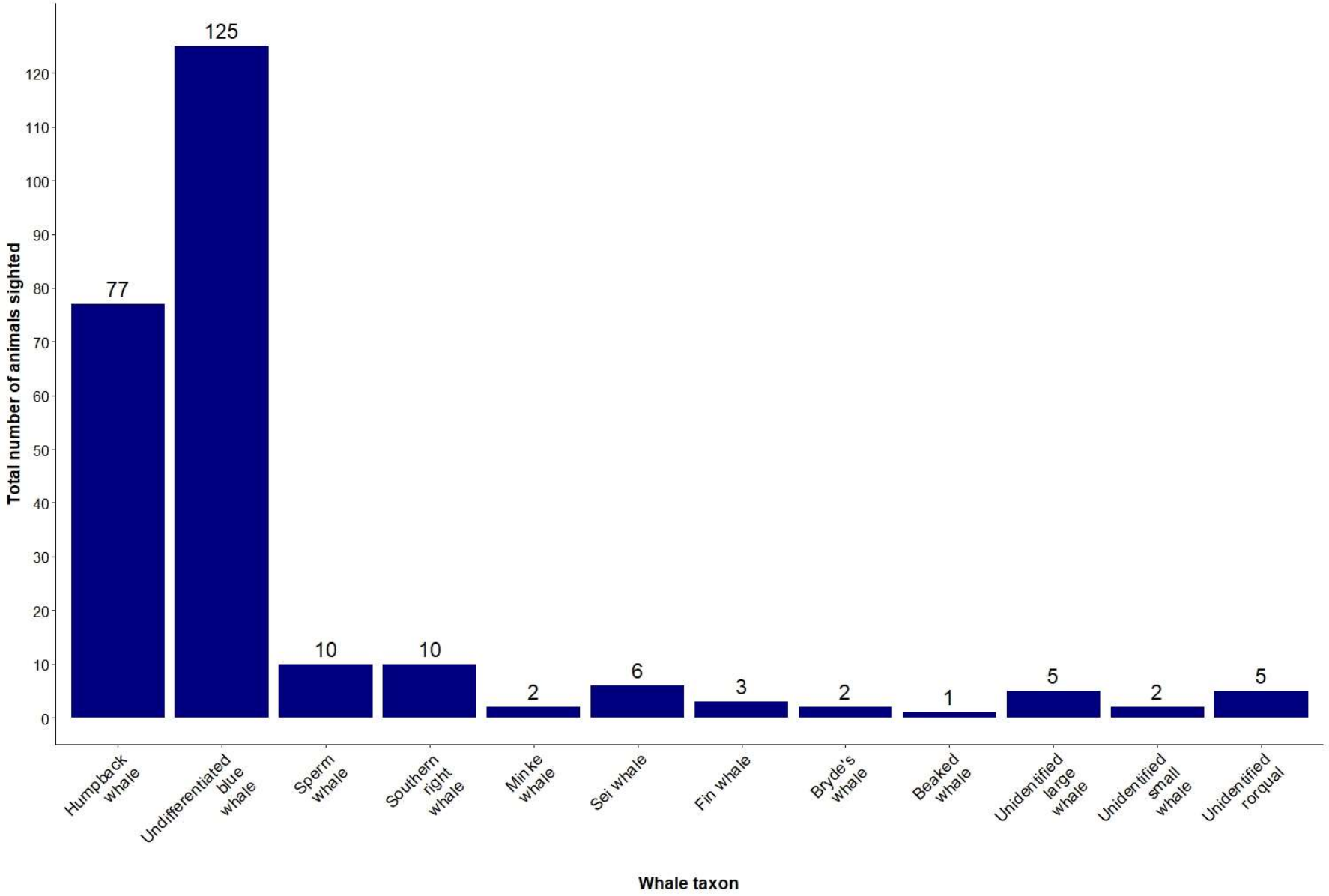


Figure 3-5 Total number of whales recorded across all aerial surveys.

3.3. Spatiotemporal patterns of whale occurrence

3.3.1. Blue whales

Aerial surveys between 8 August 2022 and 2 June 2023 made 69 detections of 125 blue whales (Figure 3-6). The first sighting occurred on 2 October 2022 in close proximity to VIC/P79 (Figure 3-7). Subsequent sightings occurred irregularly until a marked increase in sightings in December (30 whales), followed by a decrease in sightings, and then a slow increase leading to peak in April (40 whales), followed by a marked decline in May/June (3 whales).

Key observations:

- October 2022 marks the arrival of small numbers of blue whales, presumed to be pygmy blue whales, one in VIC/P79 and two in central Bass Strait.
- A peak in numbers of blue whales in December 2022.
- A second peak in blue whale sightings within the survey area in March and April 2023.
- One sighting of a blue whale cow/calf pair on 7 February 2023.
- The presence of extensive areas of dense surface krill swarms across the survey area with only some of these areas apparently being utilised by blue whales. However, as krill can occur at any depth, it is possible some blue whales were not detected because they were subsurface while feeding on krill swarms at depth.
- General observations obtained early in the season (September – November 2022) indicated some blue whales to be in poor to moderate body condition.
- Observations through 'peak season' (December–April) showed the majority of blue whales to be in moderate to good body condition.

Aerial surveys flown prior to those reported on here (but also commissioned by ConocoPhillips Australia), detected blue whales in the months of September (two whales) and October (one whale) 2021. These detections were made in the eastern half of T/49P and represent the earliest seasonal records for the region (Peter Gill pers. comm.).

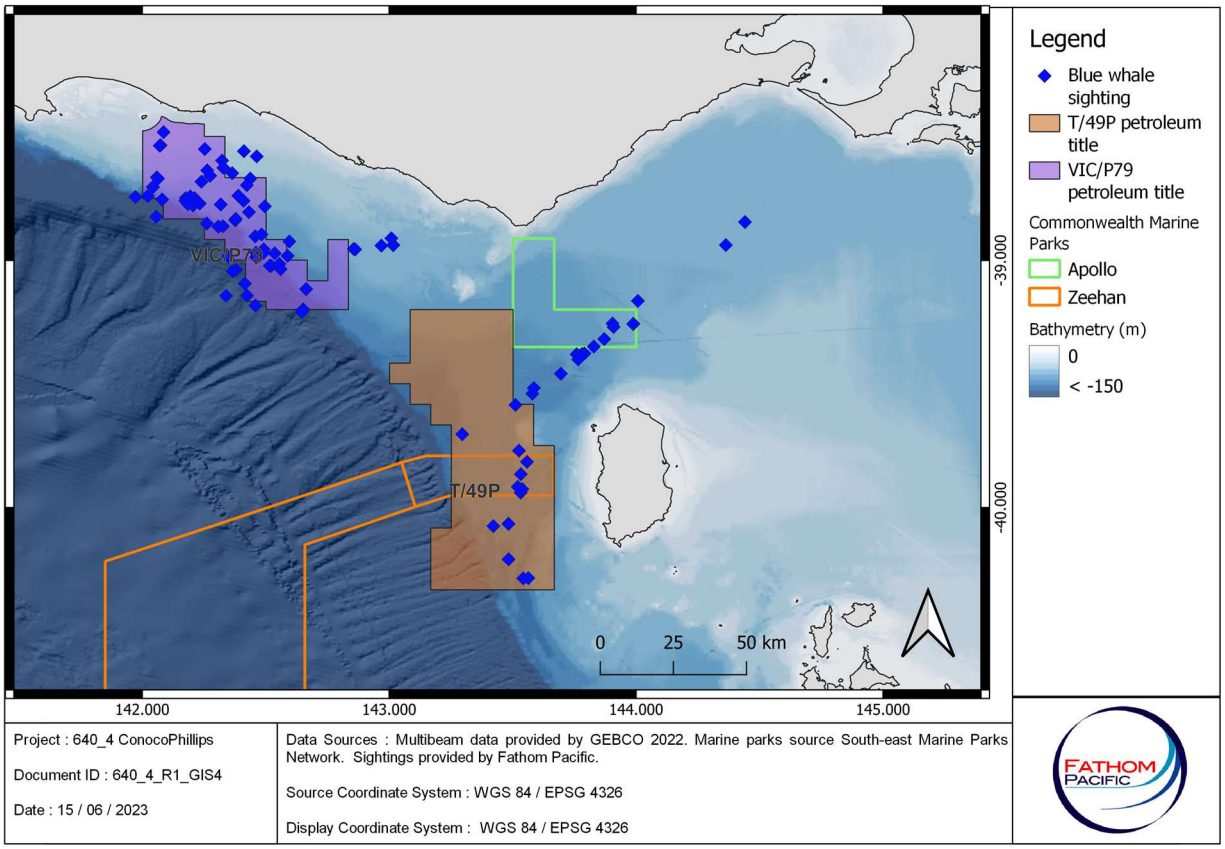


Figure 3-6 Location of validated blue whale sightings over the survey period (August- May).



Figure 3-7 Blue whale (likely pygmy blue) on 2 October 2022.

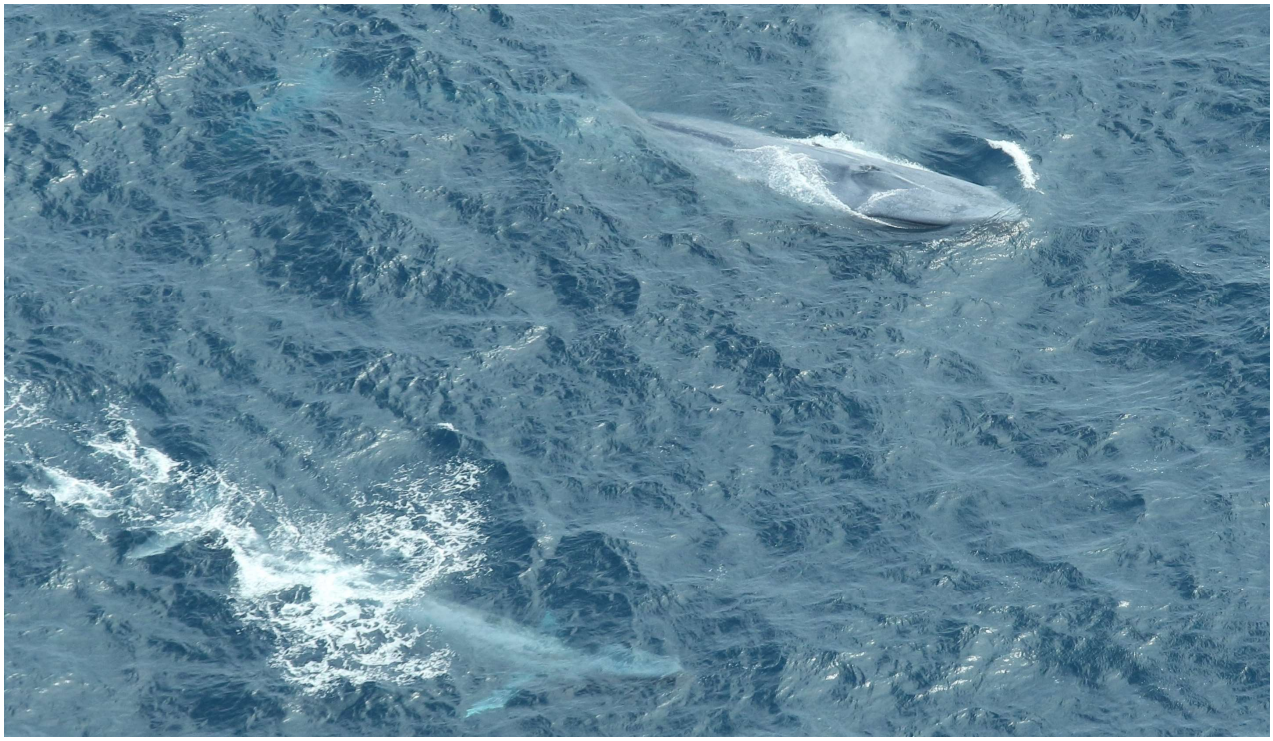
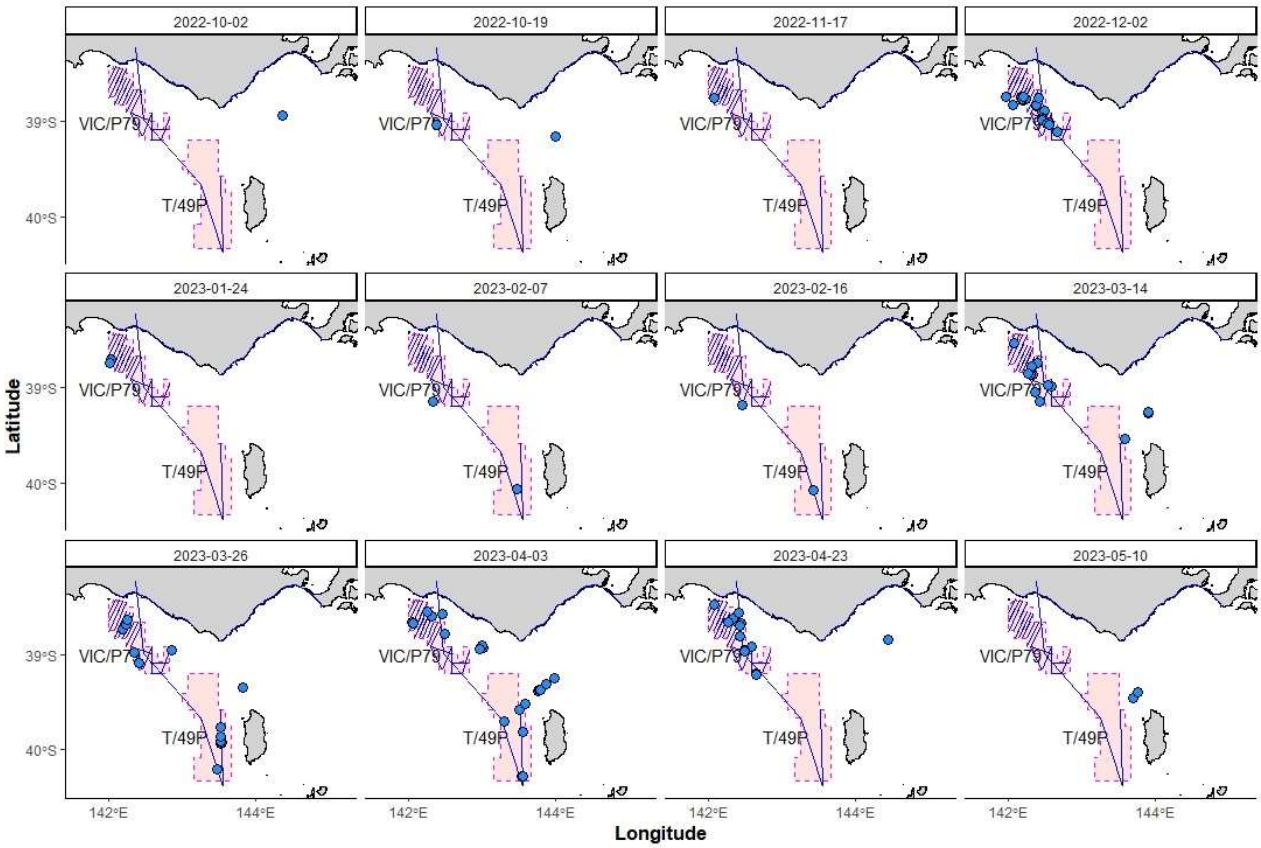


Figure 3-8 Blue whale (likely pygmy blue) cow/calf pair on 7 February 2023.



Note: Figure 3-9 does not include flight data from when blue whales were not detected.

Figure 3-9 Spatial distribution of blue whales sighting across flights. Blue line shows transect lines.

3.3.2. Humpback whales

These detections were represented by 74 individual humpback whales from across the survey area and nearby waters. The presence of this species was largely concentrated in the western portion of VIC/P79 and the southern half of T/49P, with the spread of incidental sightings from west of Cape Otway to central Bass Strait (Figure 3-10).

Humpback whale detections totalled 31 between the months of August 2022 and June 2023 (Figure 3-11). No humpback whales were observed between January and April (inclusive). The majority of humpback whales detected during September to November were observed to be surface or shallow subsurface feeding at the time of sightings. These observations were occasionally, but not always, coupled with observations of surface krill and often involved multi-species assemblages, usually including common dolphins, fur seals and piscivorous and krill-eating seabirds.

One observation of a humpback whale cow/calf pair was made in central Bass Strait on 19 October 2022. The position of the calf was observed to be below the adult and in a posture that suggested the calf to be nursing at the time (Figure 3-12).

Traditionally, the known migratory pathway of humpback whales has typically been assumed to be largely a north/south orientation along the east coast of Australia (Gales et al. 2009). Evidence gathered in recent years through satellite tagging and citizen science efforts, suggests a secondary migratory pathway exists through central and western Bass Strait. This pathway is assumed to intersect with the east Australian migratory corridor. Data gathered during the present study supports this hypothesis.

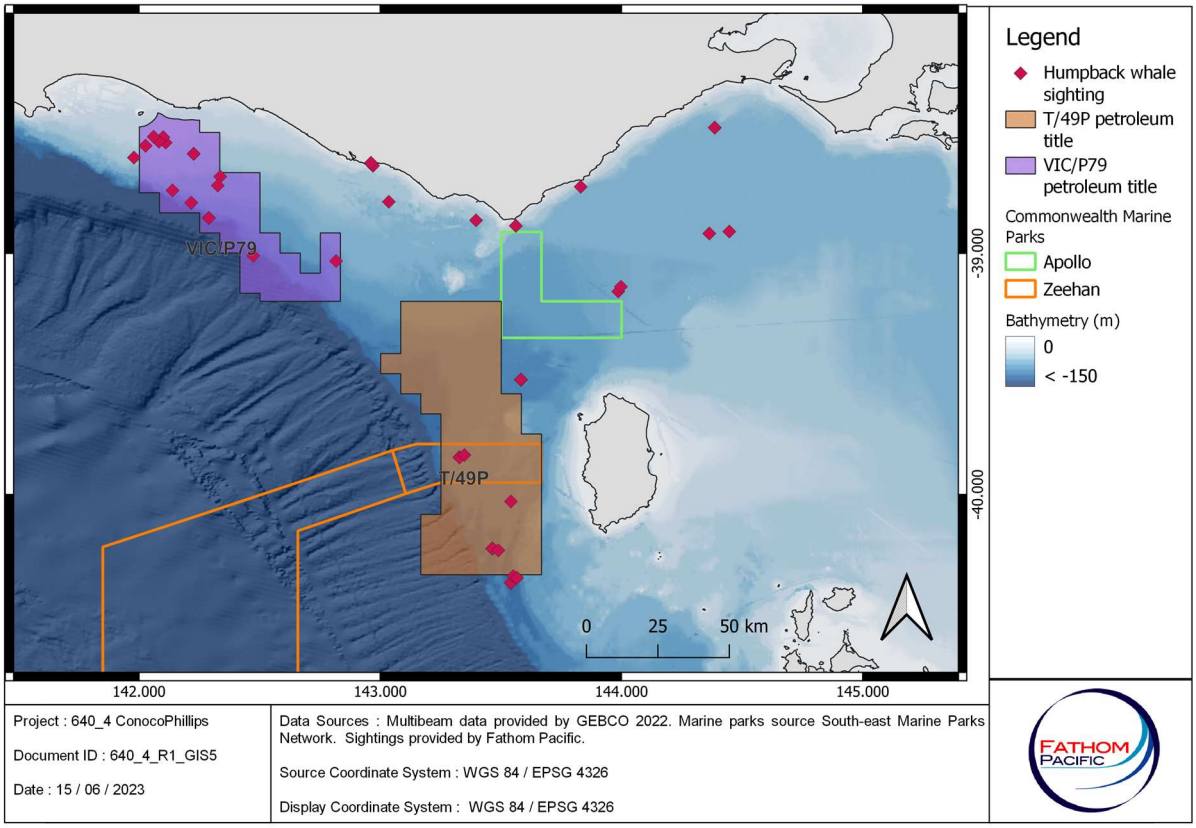


Figure 3-10 Locations of all humpback whale sightings during the survey period.

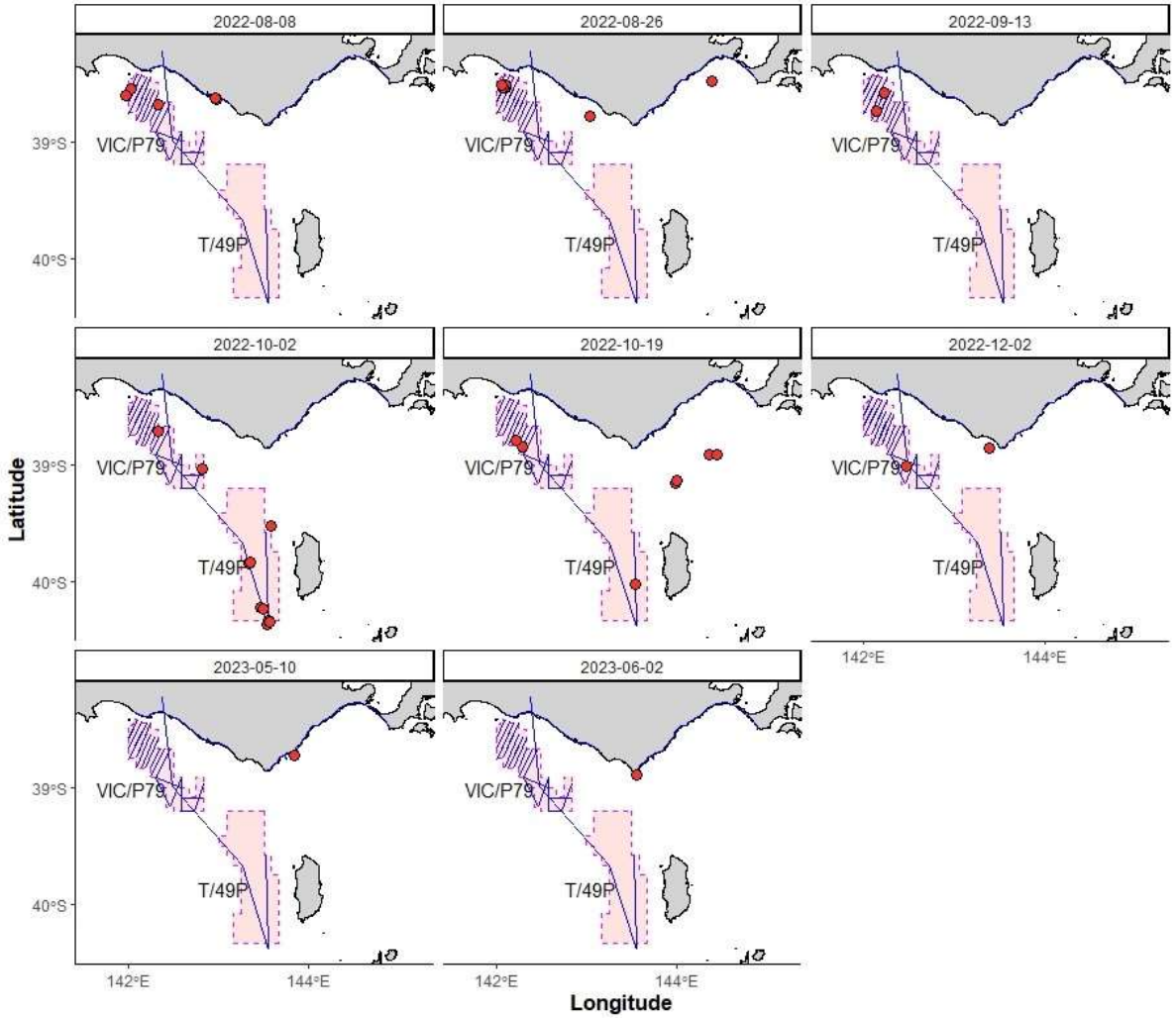


Figure 3-11 Spatial distribution of all humpback whale sightings. Blue line shows transect lines.



Figure 3-12 Humpback whale cow/calf pair. Arrows indicate calf pectoral fins protruding from beneath adult.

3.3.3. Sperm whales

Sperm whales were sighted on seven occasions and totalled 12 individual animals. Considering the relatively short amount of time spent surveying over known sperm whale habitat and the known extended diving behaviour of the species, this number of detections is notable. All but one sighting involved adult sized sperm whales that were presumed to be males (Figure 3-13). With the exception of one sighting, all detections were made at the southern end of Transect T_04 and the beginning of Transect T_05 within VIC/P79, off the continental shelf break (Figure 3-14). The far southern sighting occurred along transect SB_03 in an area on the continental shelf but appearing to be linked to a deep-water channel, possibly connected to the continental shelf break. This sighting was of two sperm whales, likely a cow/calf pair. The posturing of the smaller individual suggested possible nursing behaviour at the time of the sighting.



Figure 3-13. Sperm whale on T_05 south of VIC_P79.

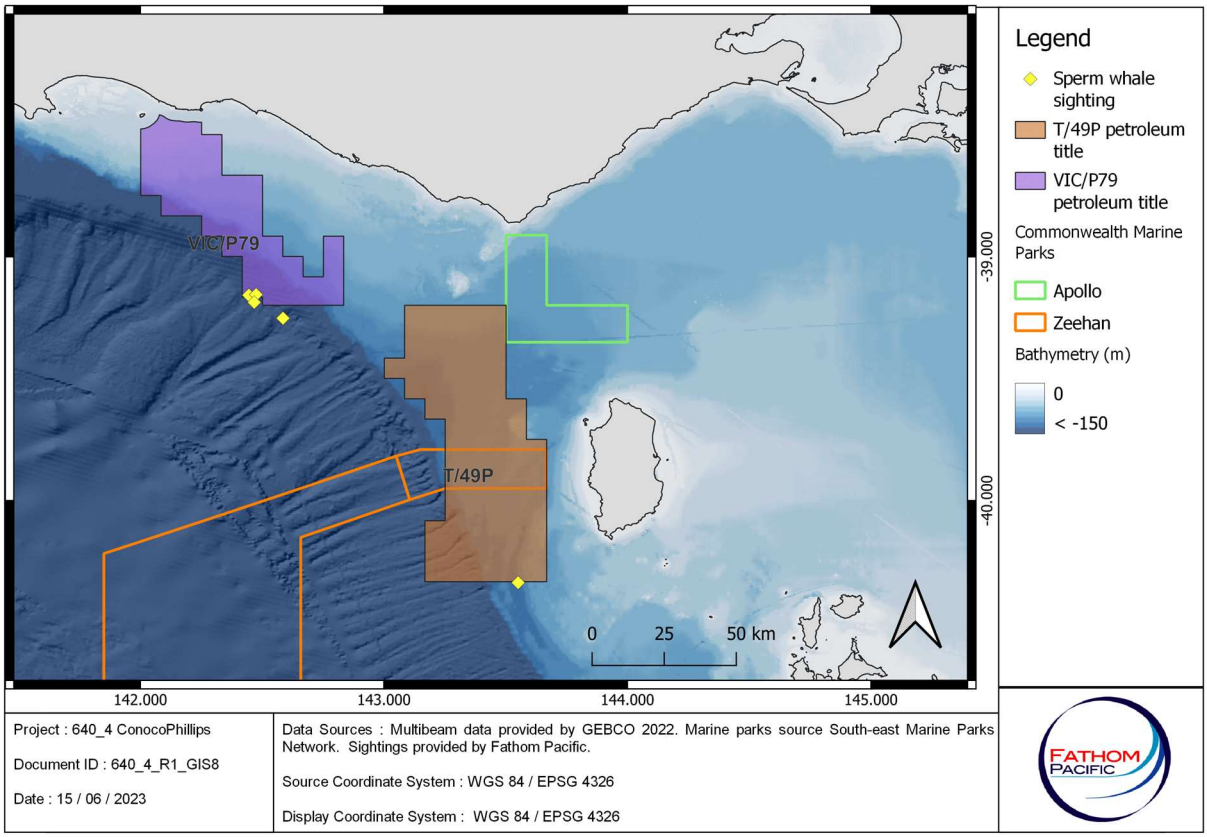


Figure 3-14 Locations of all sperm whale sightings during the survey period.

3.3.4. Other large whales

Large whale presence was variable between surveys with sightings spread across most of the survey area (Figure 3-15). Clusters of baleen whale sightings often coincided with observed feeding behaviours which were usually associated with visible surface krill swarms and seabird presence. Sei and fin whales were the most commonly sighted 'other large whale' species but remained in relatively low abundance (Figure 3-16).

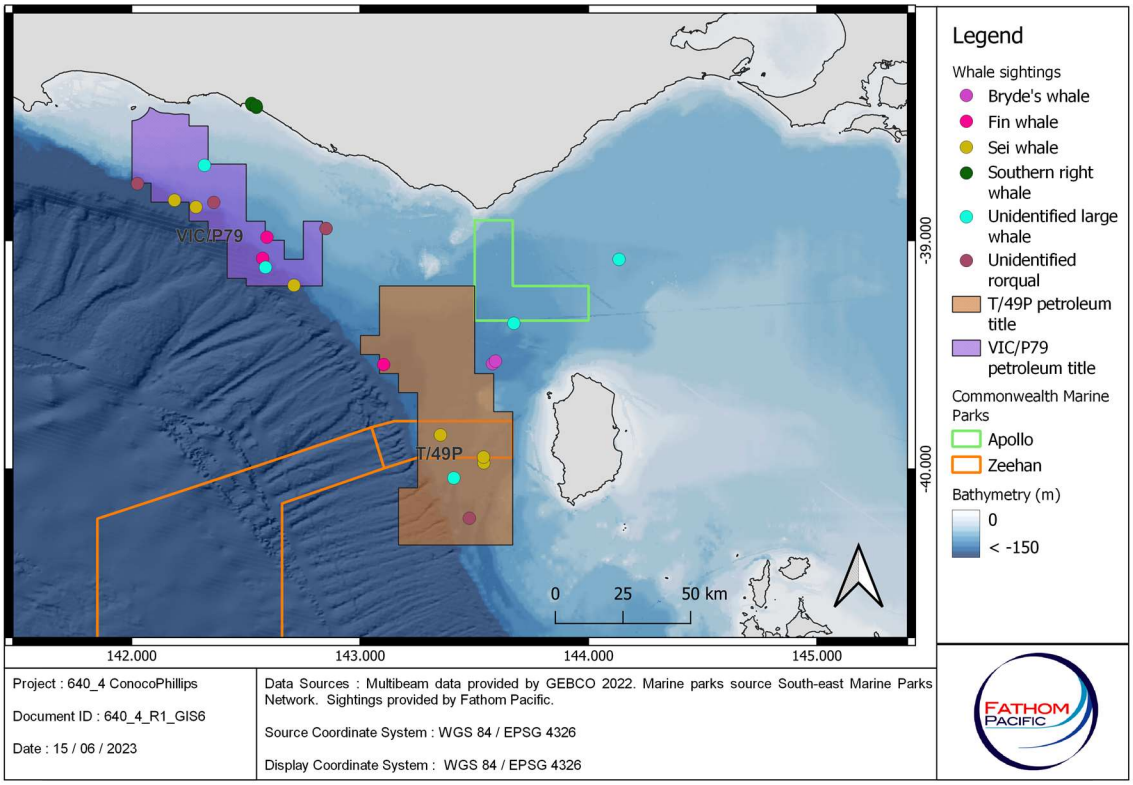


Figure 3-15 Locations of other large whale sightings.

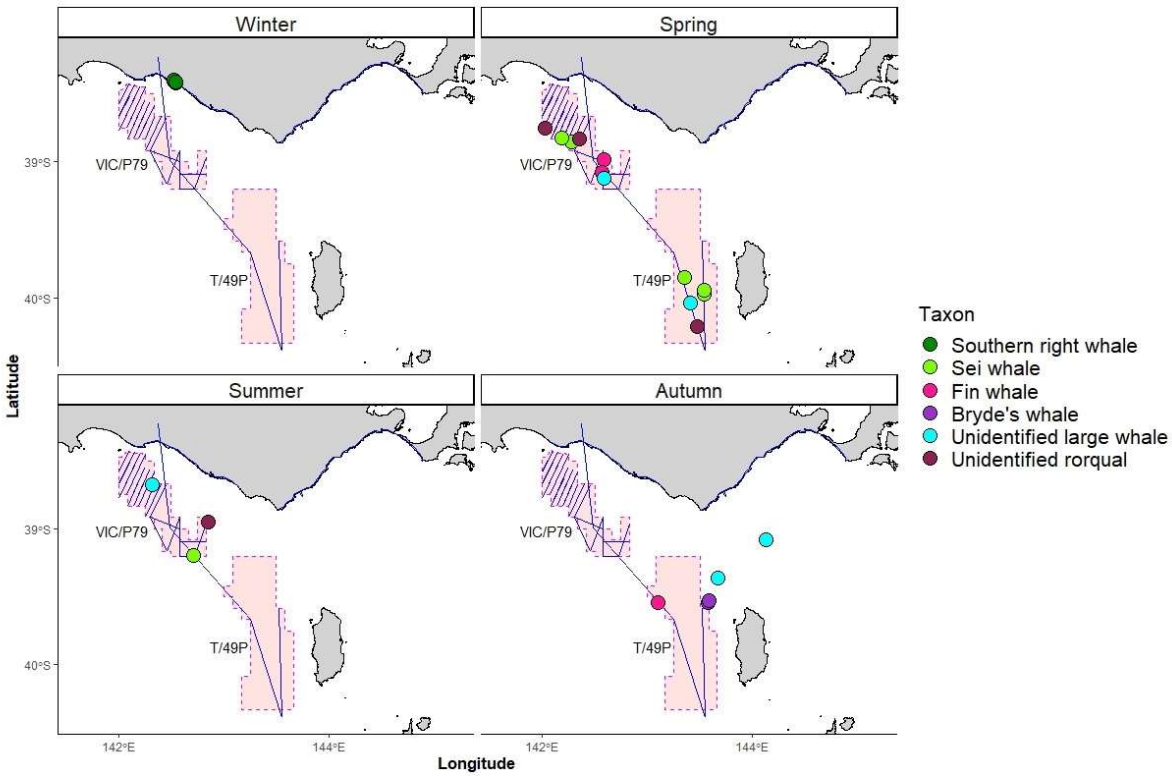


Figure 3-16 Seasonal distribution of other large whales during the survey period (August 2022-June 2023).

3.3.5. Sei whale

A sighting of a sei whale sighting occurred on 4 November 2022 (Figure 3-17). The individual presented with an unusual pale morphology not previously reported in sei whales (Robert Pitman pers. comm.). The pale colouration extended from the ventral side of the animal high onto the flank, as opposed to the 'normal' demarcation in colouration occurring just above the ventral line. Imagery from this event was shared with taxonomic experts both within Australia and overseas for review and comment. Based on evidence of a definite dorsal ridge and apparent post cranial depression, this animal appears to be in poor body condition.



Figure 3-17 Sei whale presenting with a pale morphology, 4 November 2022.

3.3.6. Small whales

Observations of small whales were limited to minke whales (two records), unidentified beaked whales (one record) and unidentified small whales (two records). These records while low in number, add context to the high biodiversity of cetacean species within the region (Figure 3-18).

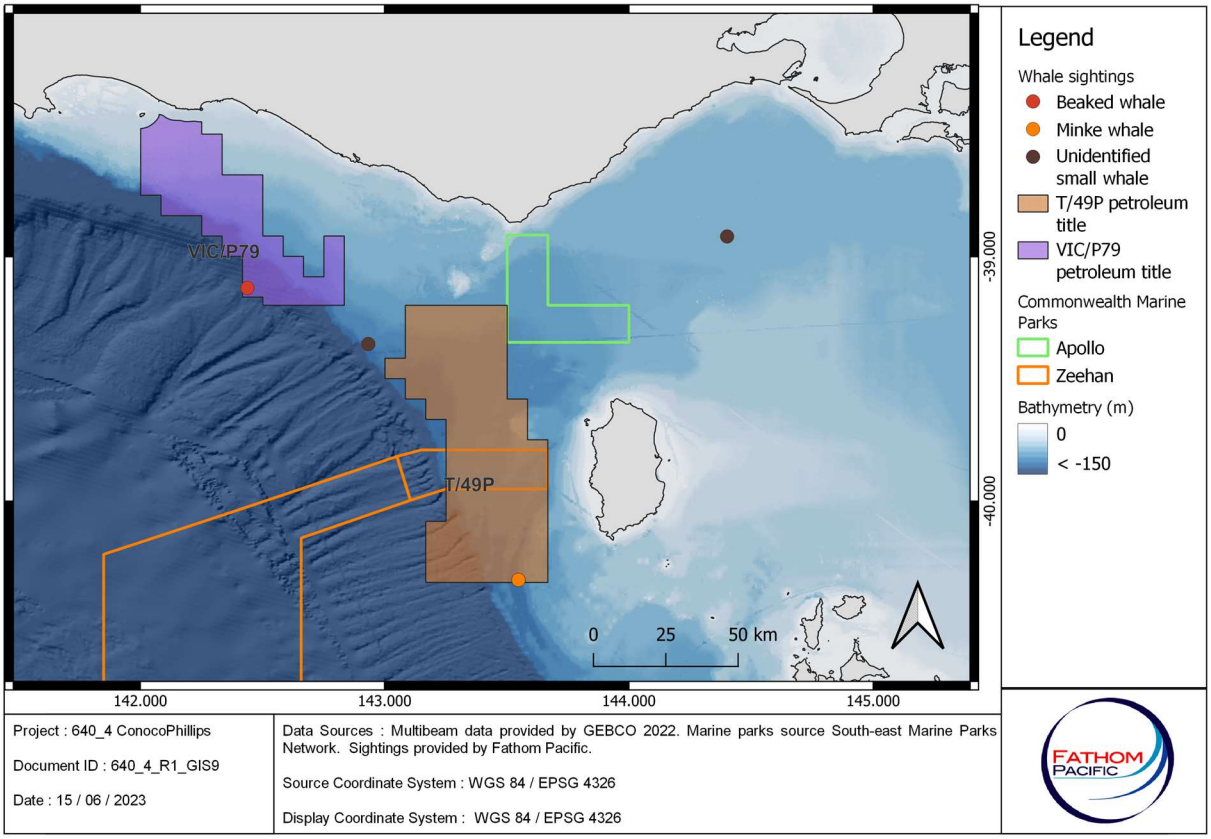


Figure 3-18 Locations of small whale sightings.

3.3.7. Other species and ecological features

The Otway Basin region is recognised as an area of seasonally high productivity. Cool nutrient rich waters upwelled in the region leads to an increase in phytoplankton abundance and supports high productivity. These primary producers form the basis of multiple food webs which support many species such as krill, sardines and other baitfish, and apex predators including baleen whales, bottlenose dolphins, common dolphins, Australian fur seals, gannets, and southern blue fin tuna (Goldsworthy et al., 2011; Johannes and Young, 1999; Rogers et al., 2013).

An increase in phytoplankton abundance during upwelling events can attract krill to the region. *Nyctiphanes australis*, a coastal krill, is abundant on the continental shelf off southeast Australia (including Tasmania) and is the principal euphausiid species in this region (Johannes and Young 1999). *Nyctiphanes australis* forms an important link to higher trophic levels and is thought to be an important prey source for baleen whales including blue and humpback whales (Gill, 2002; Johannes and Young, 1999; Morrice, 2014; Stamation et al., 2007). The species is known to form surface and subsurface swarms, during upwelling seasons in the GSACUS surface swarms of *N. australis* have frequently been observed (Gill et al., 2011; Johannes and Young, 1999). The presence of sub-surface swarms has often been inferred from sightings of blue whales rising to the surface with distended throat pleats, with no surface swarms visible nearby (Peter Gill pers. comm.). Gill (2002) found the distribution of blue whales closely aligned with the distribution of *N. australis* in this region.

Krill swarms were recorded sporadically on all but one survey (8 August 2022). Observations of krill swarms varied in size from ~10 m diameter to over 100 m. Surface swarms typically increased in frequency and size in the southern half of transects within VIC/P79 and T/49P and were consistently observed along the shelf break. The presence of surface krill swarms across the extent of the survey area is indicative of an increased level of productivity.

Areas of high krill density were often coupled with the presence of a range of predators which included krill-eating birds, dolphins, seals and baleen whales (Figure 3-19).



Figure 3-19 Humpback whale feeding on a krill swarm in T/49P

Humpback whale density was relatively high in T/49P in proximity to the continental shelf break. Surface krill swarms were present during these observations which often coincided with observations of feeding humpback whales (Figure 3-20). These observations suggest a relatively high level of productivity was being generated in the area.



Figure 3-20 Feeding group of humpback whales in T/49P.

In addition to krill observations, a high number of sunfish were recorded on 19 October 2022 (Figure 3-21). In all, a total of 18 sunfish were observed on this survey with the majority of sightings being within T/49P and on transit to Tyabb (Figure 3-22). Other than this event, only one sighting of a single sunfish was made on 4 November 2022, and no sightings were recorded in the 2021 survey.



Figure 3-21 One of 18 sunfish documented on 19 October 2022.

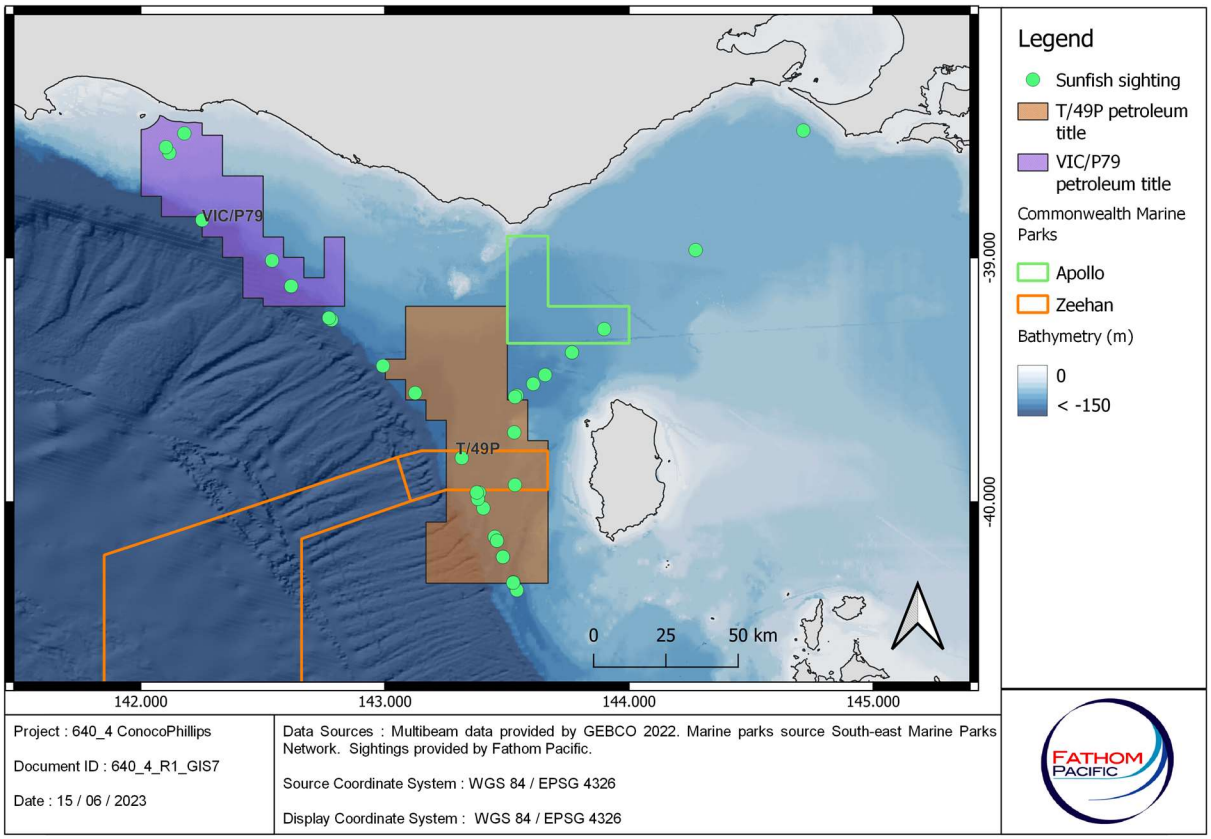


Figure 3-22 Sunfish sightings.

3.4. Areas of significance and regional context

Both VIC/P79 and T/49P overlap an area of high productivity and seasonal upwelling and intersect seasonally occupied biologically important areas (BIAs) for cetaceans, including:

- The foraging and, in part, the foraging (high density) areas for pygmy blue whales, and
- The known core range and, in the northern extent of VIC/P79, the aggregation area for southern right whales.

The petroleum titles do not overlap the foraging BIA for sperm whales, which is located off the coast of South Australia, or the migration BIA for humpback whales located on the east and south-west to west coasts of Australia.

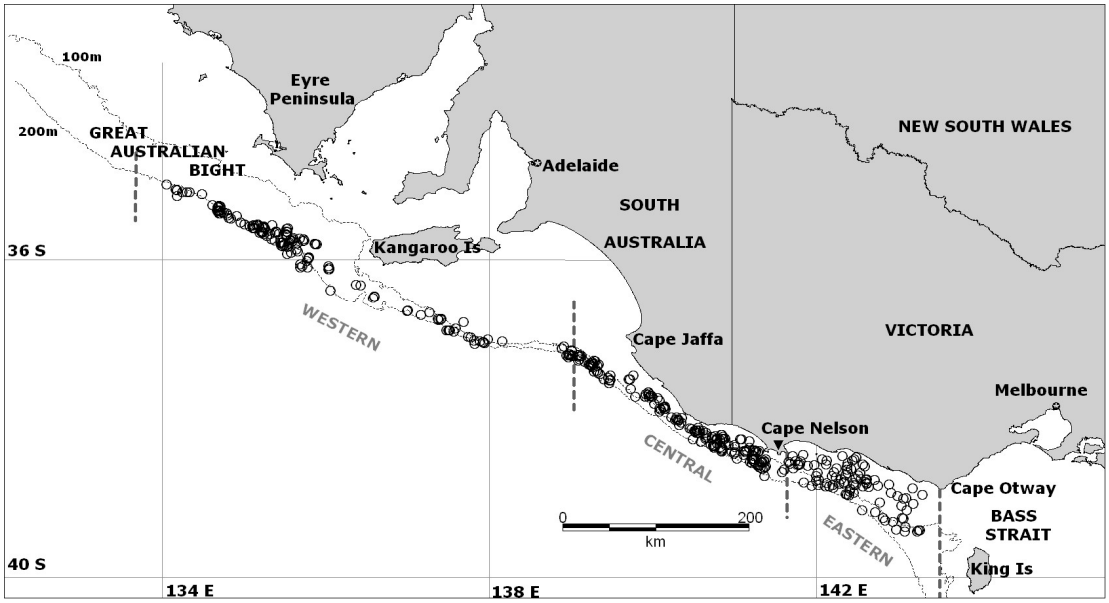
The results of the present study in combination with historical data align with designated BIAs, in that the region is seasonally inhabited by blue whales and used as a foraging area. Blue whales are expected to be observed in higher numbers during the November-April period, which coincides with the GSACUS season and other regional productivity enhancement processes. Sightings of blue whales in the Western Victorian region between June-October can occur but are considered rare.

Gill et al. (2011) undertook 69 aerial surveys between January 2002 and May 2007 to establish the spatial and temporal variation of abundance and distribution of blue whales in the area extending from west of Kangaroo Island (~136°E, SA) to Cape Otway (VIC) during the Bonney Coast Upwelling season. Their total survey area was partitioned into western, central and eastern zones (Figure 3-23) and differentiated physio-graphically by variations in shelf width, shelf orientation and sea surface temperature (SST). The central zone lies along the narrow shelf where the Bonney Coast Upwelling surface plume is expressed (Gill et al., 2011). The eastern zone occupies the broader shelf between Cape Nelson and Cape Otway, which is also subject to a largely subsurface upwelling except for nearshore surface plumes during strong upwelling events (Gill, 2002; Levings and Gill, 2010). The VIC/P79 survey area partially overlaps the eastern zone of (Gill et al., 2011).

Gill et al. (2011) made the following observations during their 2002-2007 surveys with respect to blue whales:

- Blue whales were usually restricted to the western and central zones in November entering the eastern zone in December.
- Blue whales were widely spread through the central and eastern zones during January-April.
- In the eastern zone, encounter rates peaked in February (9.8 whales/1,000 km); dropping slightly to 8.8 whales/1,000 km in March; then declining to approximately 4 whales/1,000 km in April and to a single sighting in May (0.4 whales/1,000 km). Encounter rates in November were zero and in December is 1 whale/1,000 km.
- The central zone received less survey coverage than the eastern zone (20,339 km vs 24,380 km), yet more blue whales were sighted in the central zone, with the encounter rate in the central zone more than twice that in the eastern zone (11 whales/1,000 km vs 4.8 whales/1,000 km).
- Eighty percent (80%) of blue whales were encountered over seafloor depths of between 50 and 150 m and 93% of sightings occurred in water depths < 200 m in the eastern and central zones with 10% of sightings within 5 km of the 200 m isobath.

- The overall pattern of seasonal distribution suggest blue whales begin foraging in the western sector early in the upwelling season (around November), spread eastward through the central and eastern zones until April, then possibly contract toward the central zone prior to departure for wintering grounds.
- However, during aerial surveys in T/49P for Origin Energy in late 2012, large numbers of blue whales were observed on 10 November (21 whales) and 6 December (70 whales), the latter being the highest density of blue whales ever recorded in Australian waters (Peter Gill pers. comm.).



Source: Gill et al. 2011.

Figure 3-23. Example map showing western, central and eastern zones of the Gill survey area.

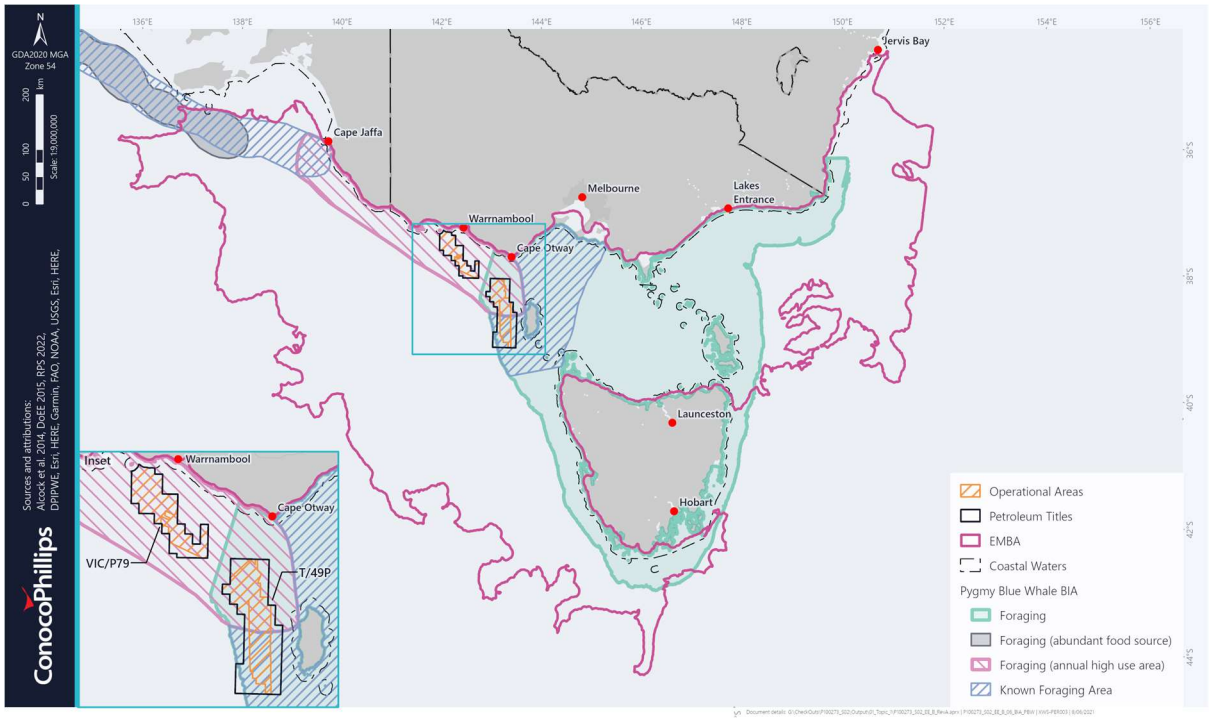
In relation to Gill et al. (2011), the ConocoPhillips Cetacean Surveillance Program found the following patterns of blue whale occurrence:

- Agreed that blue whale occurrence in the Gill Eastern Zone (Gill EZ) is low before December (one in September (2021 data), three in October 2022 and one in November 2022).
- January flights detected three blue whales, February three blue whales, March 33 blue whales and April 40 blue whales, representing a later extension of blue whale encounters.
- The Gill EZ was most consistently used by blue whales during periods where blue whales were present in the survey area.
- The maximum blue whale group size was eight animals (in central Bass Strait area north of King Island). Group sizes of two to five were recorded on several occasions throughout the Gill EZ, with one being the most common group size. One cow-calf pair was observed.
- One blue whale was sighted in the Gill EZ in November. Peak sighting months in this zone were December, February, March and April.

In addition, the ConocoPhillips Cetacean Surveillance Program found:

- In December, no blue whales were recorded on one flight and 30 blue whales recorded on another flight (maximum group size of four with feeding behaviour observed). This suggests productivity enhancement events may trigger short-term blue whale abundance increases.

2022–2023 aerial surveys have acquired data that shows blue whale occurrence further east than previously recorded by aerial surveys, but consistent with the known foraging BIA (Figure 3-24). These detections in the central Bass Strait region north of Tasmania, may indicate wider ranging movements of blue whales than previously reported. The present study indicates low blue whale occurrence before December, an isolated increase in abundance in early-December, and a pattern of increasing abundance from February with a peak in April. The seasonal signal in abundance is likely to be associated with temporal variation in the oceanographic processes underpinning productivity enhancements across the region (Figure 3-25, Figure 3-26, Figure 3-27).



Source: ConocoPhillips 2023.

Figure 3-24. Map showing blue whale BIAs and ConocoPhillips petroleum titles.

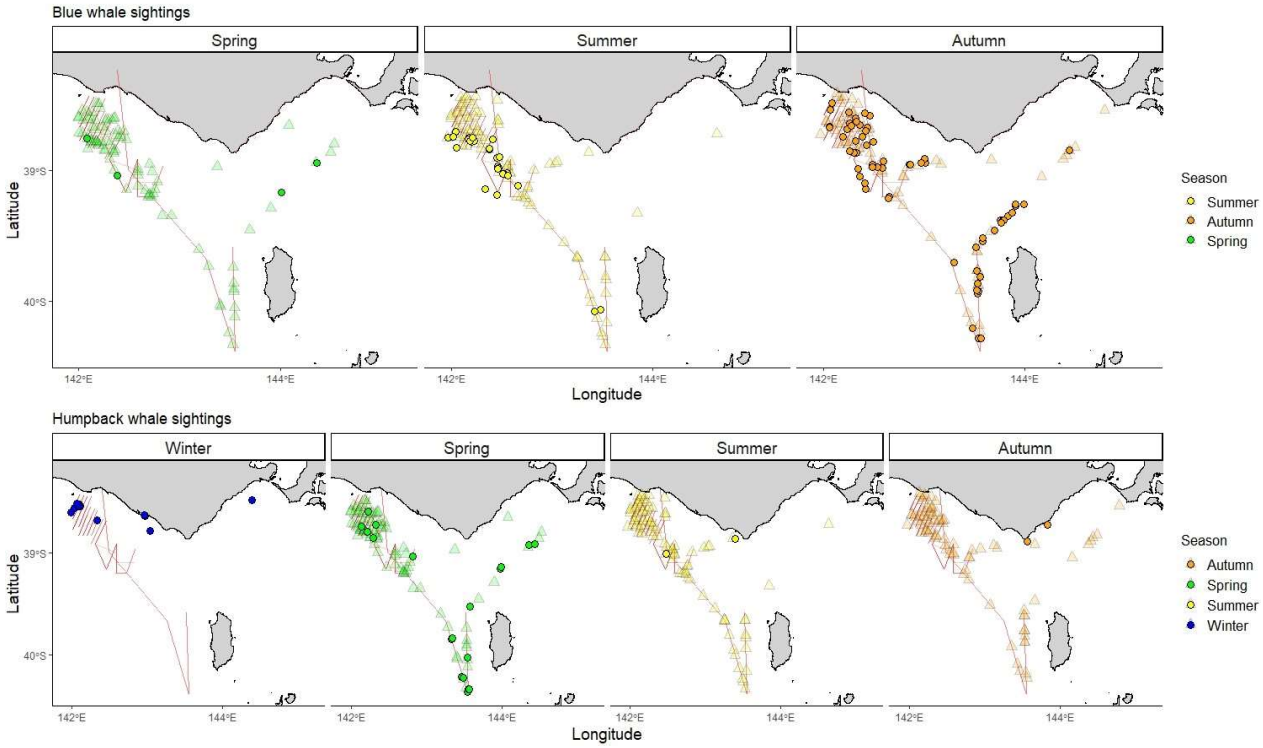


Figure 3-25 Spatial distribution of blue whales (top) and humpback whales (bottom) sightings by season. Krill is shown in background (triangle symbol). Red line shows the transects flown during the survey period.

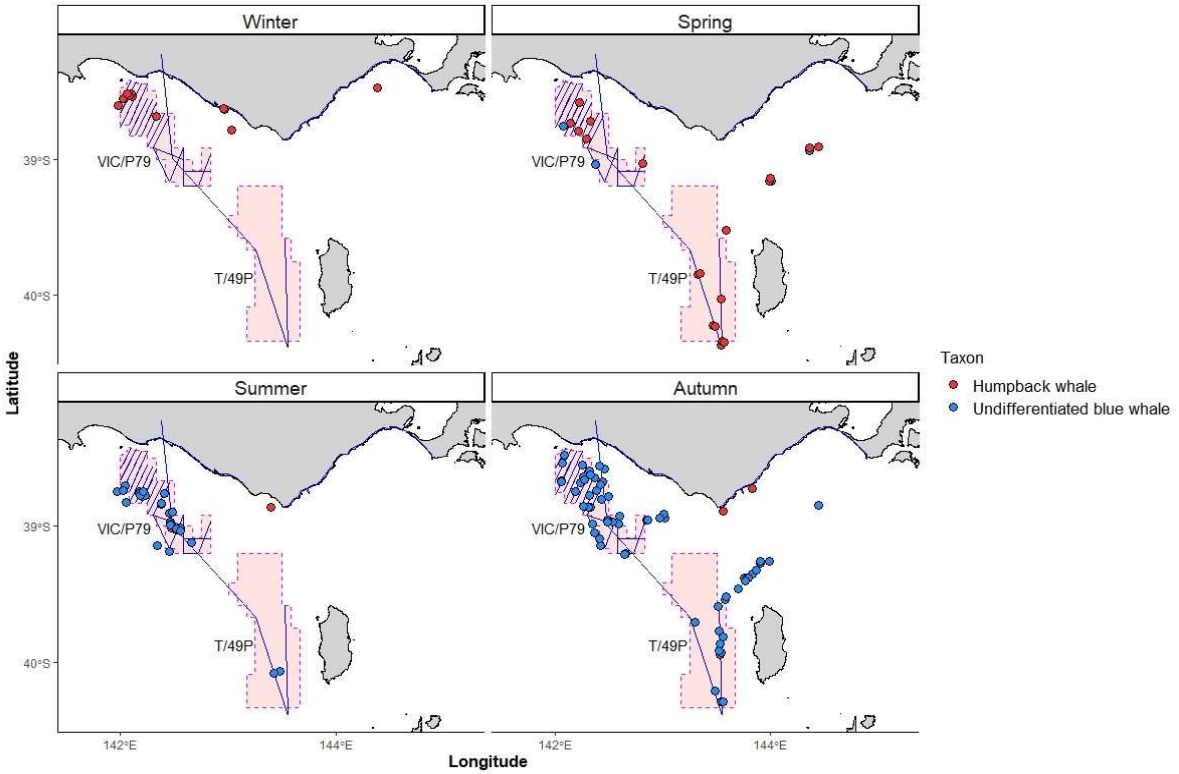


Figure 3-26 Location of blue whale and humpback whale sightings by season during the survey period (August 2022-June 2023). Blue line shows the transects flown during the survey period.

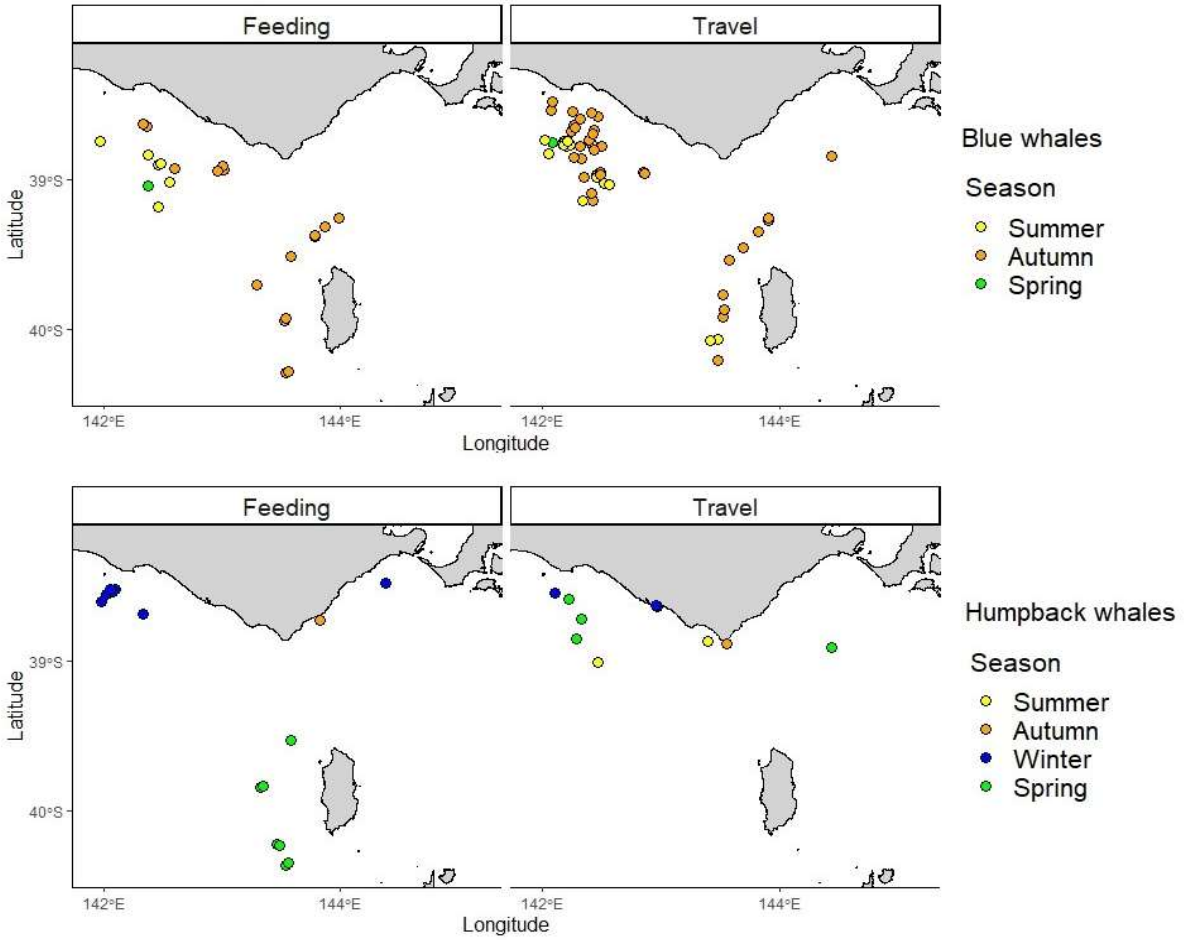


Figure 3-27 Observed behaviour at time of sighting of blue whale (top) and humpback whale (bottom) by season.

3.5. Ecophysical processes

Cetaceans are generally wide-ranging species that migrate and feed through large areas. Availability of prey is key to dictating cetacean distributions and the areas of VIC/P79 and T/49P are influenced by a range of oceanographic processes that are expected to influence productivity and the distribution of predators including cetaceans. In general, the Australian South-east Marine Region, where the survey area is located, is characterised by relative low nutrient concentration and primary productivity compared to other Australian regions (CoA, 2015). However, the mixing of water masses creates areas of high productivity and in this region, water mass structure (e.g. currents, temperature) influence the availability of nutrients and therefore productivity that leads to krill proliferation (Levings and Gill, 2002). This section describes the oceanographic context of the survey area and some of the key processes that are likely to influence cetacean distribution

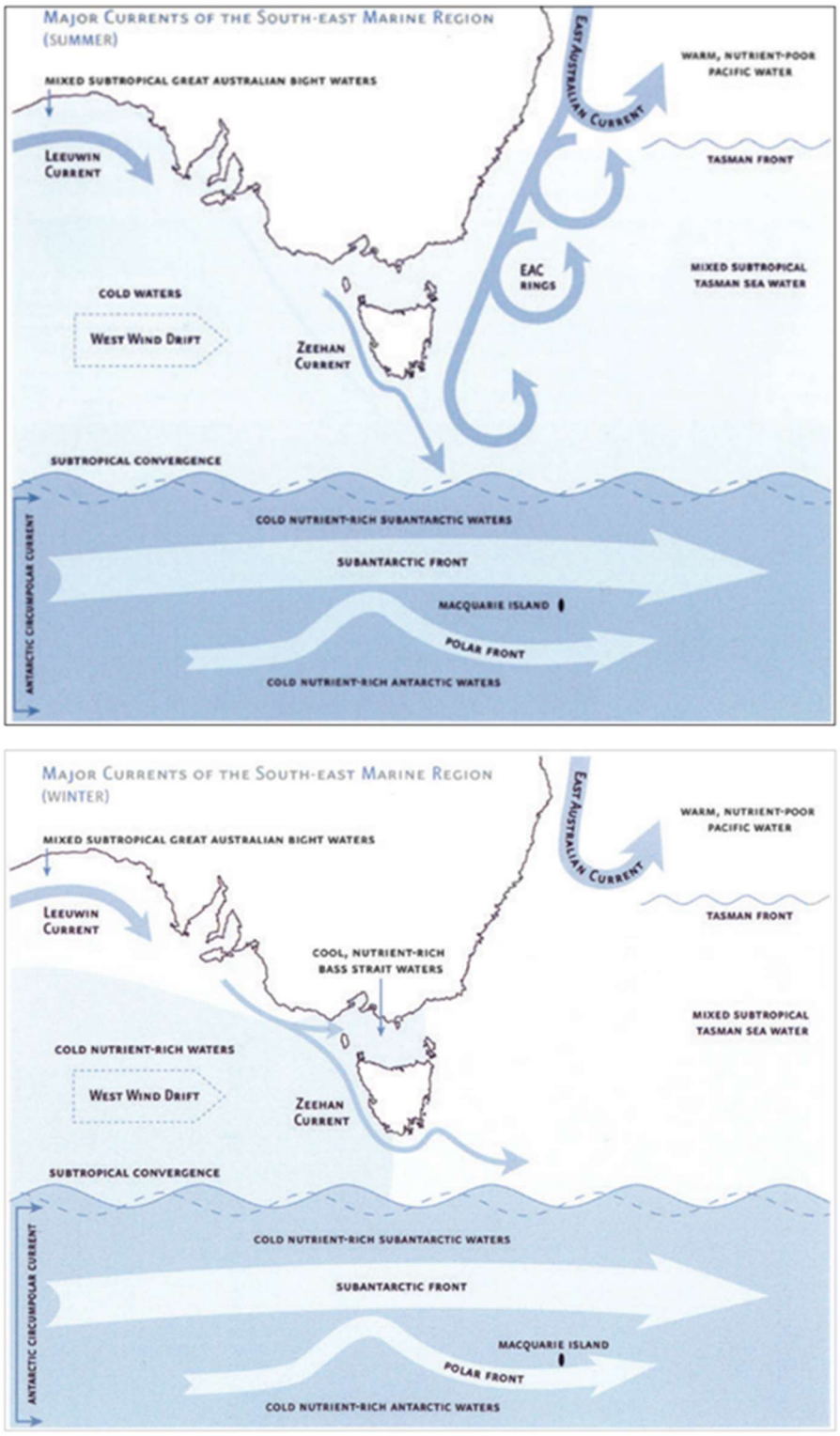
3.5.1. Oceanographic Context

The south-eastern Australian marine region is influenced by subtropical water and subpolar water, establishing an oceanographically complex area (Figure 3-28, Figure 3-29). Warm subtropical water is transported by the Leeuwin current (LC), which is originated along the Western Australia coast and is transported across the southern coast of Australia into the Great Australian Bight (GAB) (CoA, 2015). The effect of these currents over the shelf enforces geostrophic coastal currents directed to the east, which are weak in summer and strong in winter. Changes in wind speed are the key drivers of variations in sea surface anomalies and therefore influencing these coastal currents (Rogers et al., 2013).

In winter, mesoscale eddies occur in the GAB, which surface velocities may affect local upwelling and downwelling. However, these events are difficult to predict and seem to be more influential across the western GAB compared to mid and eastern GAB (Rogers et al., 2013). In winter the warm water associated with the LC extends as far as the eastern GAB and is the origin of the Zeehan current (ZC), which projects warm and saline waters down the western Tasmanian coast (interacting with the T/49P area). Compared to other currents influencing Tasmanian seasonal circulation, the ZC flow is consistent from year to year (CoA, 2015; Duran et al., 2020; Ridgway, 2007). Another major current influencing productivity in the region is the Subtropical Convergence (STC). In spring and autumn phytoplankton blooms occur in the Subtropical Convergence Zone (south of Tasmania), and in summer the region is highly productive, sustained by nutrient rich subantarctic waters (CoA, 2015).

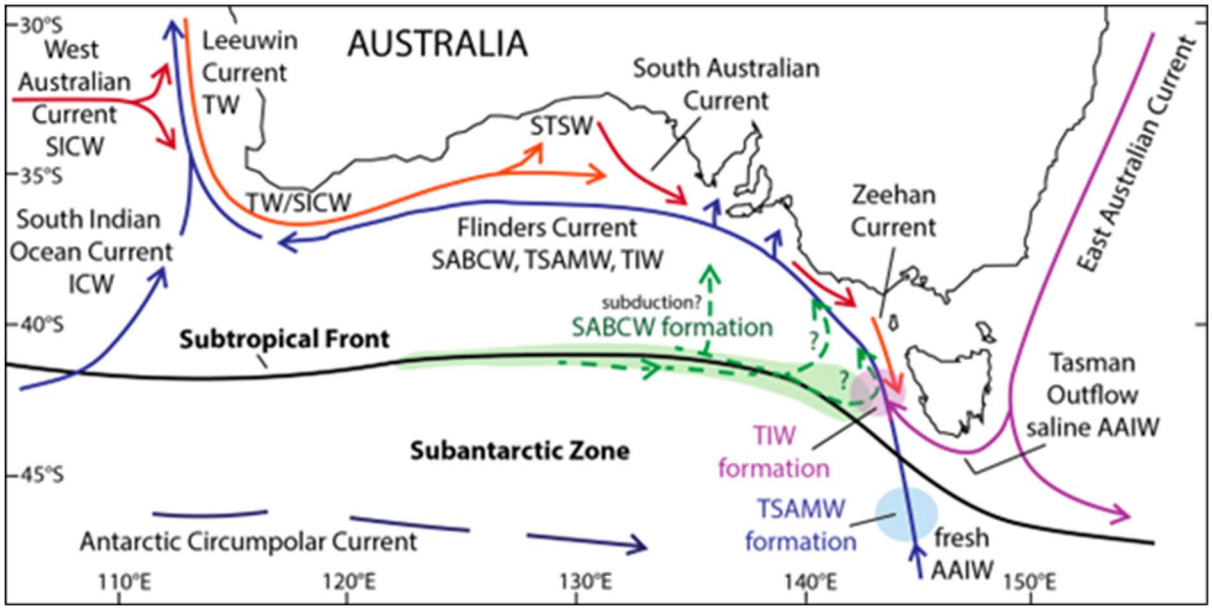
Underlying the ZC and LC is the deep Flinders Current (FC) that flows generally northwest (Figure 3-29), counter to surface currents (Middleton and Bye, 2007). The FC has been identified as the source of upwelled water in the GSACUS during periods of persistent south-easterly winds in summer to autumn (Richardson et al., 2020).

By comparison, Bass Strait is characterised by shallow water, slow easterly flow of tidal currents and a large anticlockwise circulation. Shallow water rapidly warms in summer and cools in winter compared to the surrounding region (CoA, 2015).



Source: Commonwealth of Australia, 2015.

Figure 3-28 Major currents of the South-east Marine Region in winter (top) and summer (bottom).



Source: van Ruth et al 2014

Figure 3-29 Major currents and water mass paths in the southern Australian region (Richardson 2015).

3.5.2. Processes Influencing Cetacean Distributions

The extensive Great Southern Australian Coastal Upwelling System (GSACUS) is known to provide foraging grounds for pygmy blue whales (Möller et al., 2020). The Bonney Upwelling is one key feature of the GSACUS but other upwellings and mesoscale oceanographic processes associated with the Zeehan Current (ZC), Flinders Current (FC), and the Subtropical Convergence (STC) are expected to contribute to productivity in the areas of VIC/P79 and T/49P. While VIC/P79 may be most influenced by shelf-associated features, T/49P is likely to be influenced by an upwelling feature off northwest Tasmania (Möller et al., 2020; Kämpf, 2015) that generate plankton blooms (Kämpf, 2015) and is part of the GSACUS.

On the west coast of Tasmania from October to March, a broad depression in sea surface height is generated, developing some weak southward flow during summer. The depression then shows a clear westward propagation, beginning in March. In April the weakening of the EAC along the eastern Tasmanian coast, produces cross-shelf gradients, generating a water flow towards southeast Tasmania. Overall, in the southern Australian waters, there is a positive anomaly along the entire coastal boundary from eastern Australia to Cape Leeuwin in the west. By late Autumn and early winter, the pattern is inverted, and a poleward current is evident from western Victoria towards south Tasmania. In the following months the pattern breaks up into a system of smaller eddies, the Tasmanian west coast flow represents the ZC, which peaks in June and July and persists until September. Through August and September, the coastal sea level shows a reduction of the cross-shelf gradient, and in October a depression in sea surface height is developed. As a consequence, off western Tasmania, an increase in the water flowing towards northwest is observed. This water flow represents the surface expression of the FC, a year-round upwelling-favourable current flowing from east to west along Australia's southern shelves, that occurs between October and April. During summer, the effect of the wind generates a larger FC, that directly opposes the southward flow of the ZC along the western Tasmanian slope (Ridgway, 2007).

The water masses movements described are evident in the sea surface temperature (SST) and sea surface level anomalies (SLA) recorded during the survey period (winter 2022-autumn 2023). SST and SLA data show that ConocoPhillips Australia survey area is located in an area that experienced strong gradients of sea surface temperature (Figure 3-30) and sea surface height (Figure 3-31) across the survey period. Relative sea surface temperature can indicate zones of upwelling and relative sea surface height can indicate the location of fronts and water mass boundaries that may indicate regions of enhanced productivity.

Depression in sea surface height occurred off the western Tasmanian coast between September 2022 and February 2023, corresponding to an area of lower sea surface temperature compared to the surrounding region and indicative of cold water eddies in the region. These may originate from the Flinders Current, eastward flows from the GAB or the Subtropical Convergence, and frontal zones associated with these eddies may be a role in influencing productivity in the region of T/49P. As described by Ridgway (2007), a predictable positive sea level anomaly occurred in April 2023 along the entire coastal region (Figure 3-31).

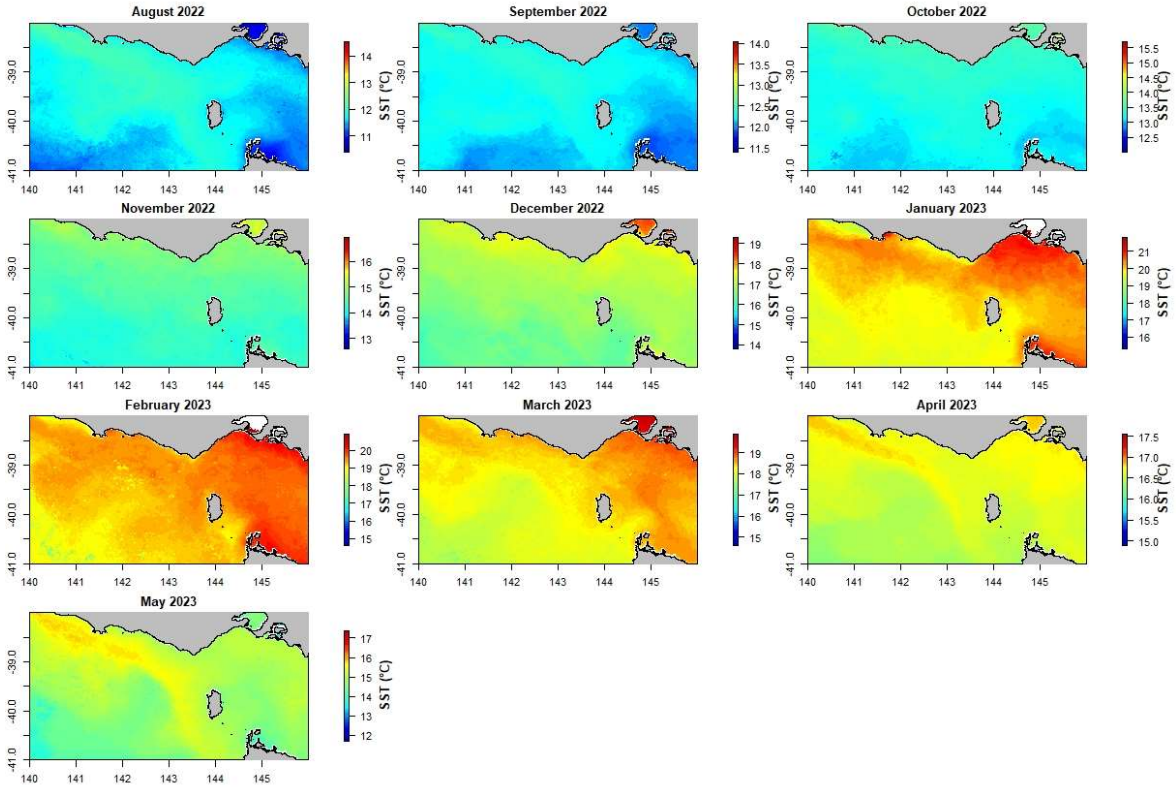


Figure 3-30 Monthly sea surface temperature recorded during the survey period. Note different colour scales. Data source Australian Ocean Data Network (AODN) portal.

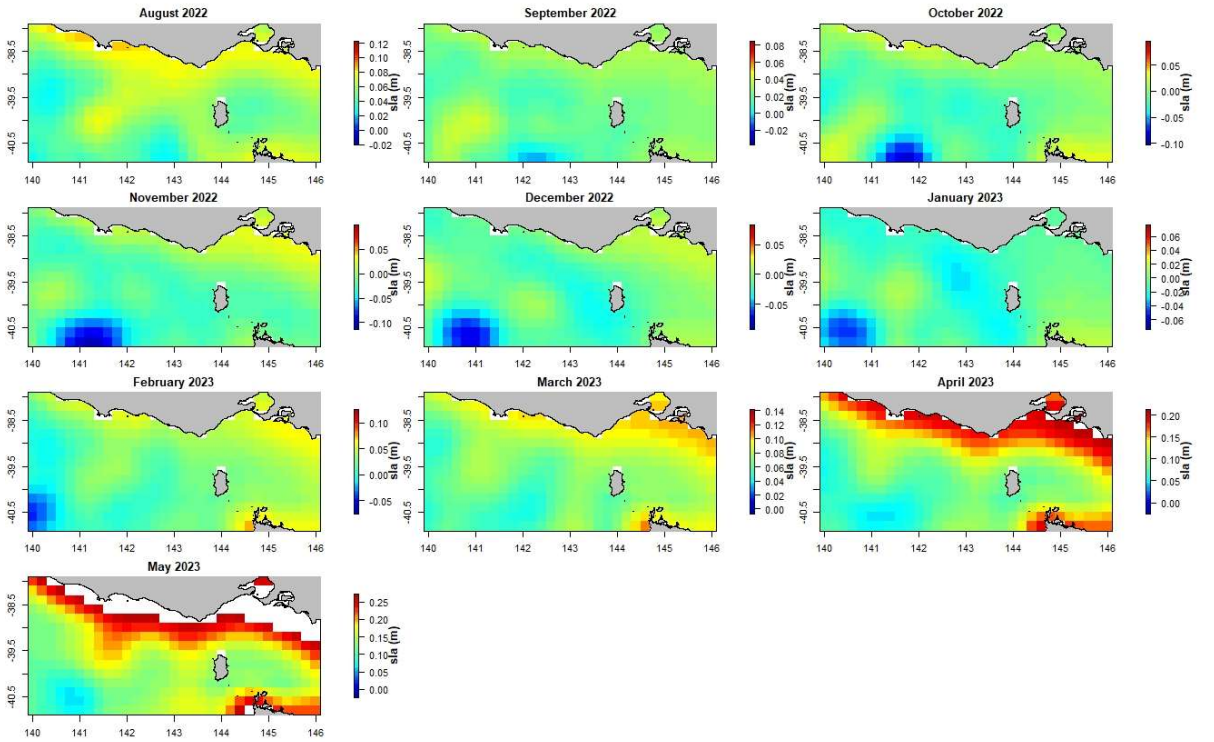


Figure 3-31 Monthly mean sea level anomaly recorded during the survey period. Note zonal boundaries of depressed sea surface height. Data source AODN portal.

Seasonal upwellings are largely forced by winds and are associated with ocean currents. The GSACUS is active during autumn and summer, driving simultaneous upwelling along the Bonney and Otway Coasts (Levings and Gill, 2010). Cool upwelled water from depths of 200-400 m is nutrient rich, enhances subsequent upwelling events and leads to phytoplankton growth in the region (Rogers et al., 2013). The GSACUS is a key and unique ecological feature of south-eastern Australian waters, it is a persistent seasonal feature, induced by lower mean wind speeds when compared to other major upwelling regions worldwide (Nieblas et al., 2009).

In the eastern GAB, primary productivity is generally higher during the summer–autumn upwelling season. Summer-autumn upwelling season is highly dependent on wind strength and direction variation. During the upwelling season, in the eastern GAB the chlorophyll maxima occur at or below the thermocline. Highest phytoplankton abundances were reported in this season and were associated with the upwelled water mass (Rogers et al., 2013). Clear peaks in chlorophyll concentration occur in autumn and spring in the south-eastern Australian marine region, with the spring peak being large than the autumn peak. The phytoplankton community appears to be distinct from other Australian waters, where upwelling produces a species succession from small to large diatoms and large dinoflagellates (Condie and Dunn, 2006). Diatoms included *Chaetoceros, Coscinodiscus, Guinardia, Leptocylindrus, Navicula, Pseudonitzschia, Skeletonema, Thalassiosira,* and *Thalassionema*, which commonly dominate coastal phytoplankton communities in Australian waters (Rogers et al., 2013).

T/49P is located to the northwest of Tasmania. The oceanography of this area is more complex and likely to be influenced by the interaction of the ZC, the FC and western Tasmanian seasonal coastal sea level changes, as well as upwelling associated with the GSACUS. Kämpf (2014, 2015) analysed more than a decade of satellite ocean-colour data and identified two distinct nutrient supplies in the region, one source being wind-driven coastal upwelling and the other

source depending on river plumes. During the summer, the west Tasmanian shelf forms part of the GSACUS, which appears to inject nutrient-rich water into western Bass Strait. This study provided evidence that the west Tasmanian shelf supports ten times more phytoplankton-productivity than the Bonney Coast Upwelling. Phytoplankton blooms originate through river discharges, occurring during the off-upwelling-season, may explain the winter spawning aggregations of the blue grenadier (*Macruronus novaezelandiae*) and the associated high abundance of Australian fur seals (*Arctocephalus pusillus doriferus*) (Kämpf, 2014, 2015).

The complexity of these oceanographic processes demonstrates that across both petroleum titles peaks in productivity occur, supported by upwelling events. High productivity areas are known hotspot of biodiversity, supporting multi-species assemblages, which includes large seasonal aggregations of cetaceans. Temporal and spatial distribution of cetaceans described in this report are likely to be associated with the occurrence of these events.

4. Data products

Data products detailing all sighting records including re-sights of southern right whales from the project have been produced and exported as required and supplied to ConocoPhillips Australia, the Department of Environment and Climate Change Action, Victoria, the Department of Natural Resources and Environment, Tasmania and the Department of Climate Change, Energy, the Environment and Water, Australia, on request.

4.1. CetaMAPS repository

The Cetacean Mapping and Adaptive Planning System (CetaMAPS) is a Fathom Pacific spatial relational database initiative used to map cetacean observations by land, sea and air. The system is used to securely house client data and to produce data exports as required. The system has a strict QAQC procedure that ensures a high level of confidence in the data.

4.2. Victorian State Government outputs

As part of the stakeholder engagement and collaborative approach by ConocoPhillips Australia the Victorian State Government was identified as key stakeholder and regulator in the region. As a result, all cetacean observation data was exported from ConocoPhillips Australia's CetaMAPS data holdings for use by the Victorian State Government. This export totalled 1597 validated sighting records of cetaceans accompanied by individual identification imagery of southern right whales for inclusion in the Victorian State Government operated, WhaleFace database.

4.3. Tasmanian State Government outputs

During the course of this program of works, Fathom Pacific were tasked with liaising with the Tasmanian State Government. This involved regular reporting of notable sighting events such as large feeding aggregations in or near to Tasmanian State waters and reporting of pelagic species on the continental shelf. This reporting was typically via phone conversation but also included short email reports accompanied by imagery.

4.4. Commonwealth Government outputs

As a condition of Fathom Pacific's Australian Commonwealth Marine Parks permit, Fathom Pacific were required to supply an annual permit activities report (Appendix 3) to the Commonwealth government. This report included a table of sightings with information on date, time, location and species. Also included in this report was a brief summary and a map of sighting locations. A secondary requirement of the permit was to upload all data to the OBIS AU database. These data entries may be viewed at: Aerial surveys of cetaceans in the Zeehan and Apollo Australian Marine Parks, Australia (2021-2022) - Ocean Biodiversity Information System (obis.org)

5. Conclusions

Twelve species of cetaceans were identified to species level in aerial survey transects. Blue whales observed in VIC/P79 and T/49P are likely to be part of the Indo-Australian pygmy blue whale population (CoA 2015). This population is thought to feed and move through the western Victorian region, through South Australian waters to Western Australia and into the Indian Ocean. However, subspecies determination from visual surveys must be viewed with caution.

Observations of blue whales feeding in the Otway region are consistent with the delineation of a BIAs in the Blue Whale Conservation Management Plan (CoA 2015). Blue whales were observed throughout the survey area with no consistent spatial trend other than commonly co-occurring with large surface krill swarms. Extensive areas of dense surface krill swarms were recorded across the survey area with only some being utilised by blue whales. Observations of body condition indicated some blue whales to be in poor to moderate body condition early in the season, with marked improvements observed as the season progressed.

The timing of the onset and duration of blue whale presence in the region differed from historical surveys and may be attributed to increased survey effort, inter-seasonal variations and climate variability and change which may cause distribution and migratory timing changes in a population (CoA 2015).

Humpback whales migrate and feed through the petroleum titles and the findings of this study support an emerging understanding of humpback migration pathways through western and central Bass Strait, potentially to join the east coast Australia north-south migration corridor.

Based on the low survey effort over deep water habitat and regularity of sperm whale sightings, combined with known dive times, it appears that this species may be in relatively high abundance in the continental slope waters. However, due to the lack of survey effort on this species in this region there are no historical data available which may be used for comparison to the results of this current study.

There is temporal overlap in the presence of a number of migratory species e.g., humpback, southern right and blue whales, in the region. While southern right and humpback whale migrations are somewhat predictable, and there is a seasonal signal in blue whale occurrence, complex oceanographic process and sporadic events have the potential to trigger episodic enhancements in productivity that can attract whales. The GSACUS is likely to represent a key driver of productivity enhancement throughout this region, and episodic events associated with the dynamics of the Zeehan Current, Flinders Current, and the Subtropical Convergence likely influence prey distribution and thus cetacean presence.

Overall, the findings of this study support previous findings that VIC/P79 and T/49P are in Biologically Important Areas for whale species of conservation significance. Mitigating risks of noise impacts to whales in these areas will require a blend of optimising timing of operations in relation to seasonally predictable components and adaptive management measures to respond to surveillance observations for a range of cetacean species.

6. Acknowledgements

Fathom Pacific would like to acknowledge the assistance provided by [redacted] and its team of expert pilots in the execution of these surveys. We would also like to acknowledge the involvement of past fulltime and current casual employees of Fathom Pacific: [redacted].

Additionally, we must express our gratitude to the citizen science community of coastal Victoria, who generously provided real time information on large whale movements along the Victorian coast over the course of this program of works. Finally, we would like to thank [redacted] The Blue Whale Study for his expert review of this report.

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APPENDIX 1: AERIAL SURVEY SIGHTINGS DATASHEET

Aerial Survey Sightings Datasheet

Date: _____ **Page:** _____

Client name: _____ **Project Name:** _____ **Project Code:** _____

Time hh:mm	Species	Calf (Y/N)	Behaviour	Angle	Comment	Wpt. no.	Cue	Best no.	Side (P/S)	Sighting no.	Transect name	Photos (P/S)

Species codes

Southern right whale	SRW	Sei whale	SW	Pilot whale	PW	Unidentified large whale	ULW	Bottlenose dolphin	BND	Travel	T
Humpback whale	HB	Bryde's whale	EW	False killer whale	FKW	Unidentified small whale	USW	Common dolphin	CD	Slow travel	ST
Blue whale	BW	Minke whale	MW	Beaked whale	ZS	Unidentified toothed whale	UTW	Risso's dolphin	RD	Fast travel	FT
Pygmy blue whale	PBW	Sperm whale	SPW	Unidentified rorqual	UR	Unidentified small cetacean	USC	Unidentified dolphin	UD	Feeding	F
Fin whale	FW	Killer whale	KW	Unidentified baleen	UB			Fur seal sp.	FS	Milling	M
										Behavioural response	BR

Behaviours

Logging	L
Socialising	S
Spy hop	SH
Surface active	SA
Sailing	SAIL

Datasheet entered into CetaMAPS BY: _____ *ON:* _____/

APPENDIX 2: AERIAL SURVEY EFFORT DATASHEET

Aerial Survey Effort Datasheet

Date: _____ **Page:** _____

Client name: _____ **Project Name:** _____ **Project Code:** _____

Observer port: _____ **Observer starboard:** _____ **Data recorder:** _____

Pilot: _____ **Aircraft model/registration:** _____

Transect name	Time start hh:mm	Time end hh:mm	BSS	Wind speed (knots)	Wind Dir.	Cloud okta	Glare		Rain/haze etc.	General vis. 1=none 2=poor 3=fair 4=good	Comment
							P	S			

Datasheet entered into CetaMAPS BY: _____ *ON:* _____

APPENDIX 2: COMMONWEALTH MARINE PARKS REPORT

Commercial Research – Cetacean surveys from a fixed-wing aircraft

Zeehan and Apollo Marine Parks

Permit number 2021-00089-1

Report to the Department of Environment 2022

[redacted] Fathom Pacific

Summary

This program of works was completed between 8 August and 29 December 2022. During this time, a total of eight flights that passed within the boundaries of the Zeehan and Apollo Marine Parks were completed. Transect lines were flown at a speed of 130 knots and a minimum altitude of 300 metres. Only highly experienced cetacean observers were used in primary observer roles, with lesser experienced observers onboard as data recorders. Each flight had a minimum of two primary observers, one data recorder and one pilot. Orbiting of cetaceans was minimal and always above 300 metres' altitude.

In total, 15 cetacean detections were made within the two park boundaries (Figure 1) which involved three confirmed cetacean species: common dolphin (*Delphinus delphis*), humpback whale (*Megaptera novaeangliae* (Figure 2)) and sei whale (*Balaenoptera borealis* (Figure 3)) (Table 1). To ensure the highest confidence in sighting records, species identification information passed through a rigorous, three-step QAQC process involving expert taxonomists as required. Only after this process was completed were sighting records added to the project database.

The addition of the sei whale sighting information contained within this report, whilst small, is significant and adds new information on a species which remains poorly understood in Australian Commonwealth waters.

No incidents or accidents occurred during the field season.

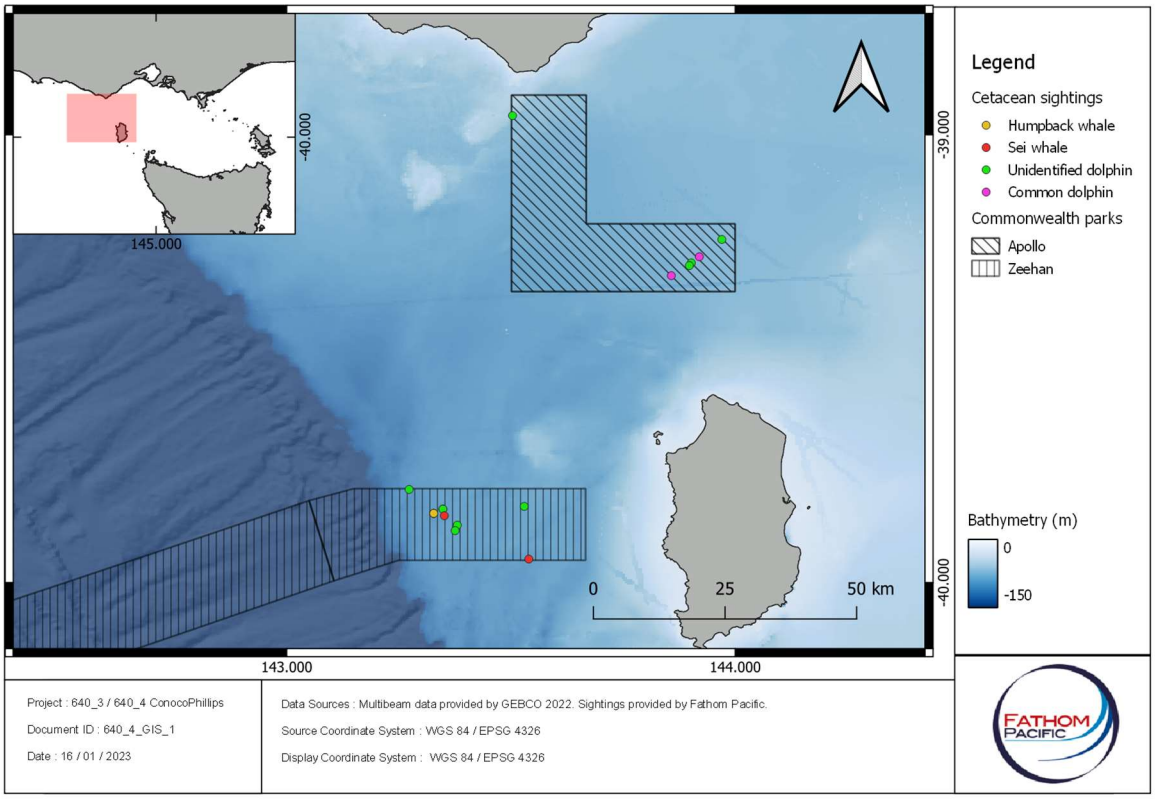


Figure 1. Cetacean sightings within Commonwealth Marine Parks



Figure 2. Humpback whales (*Megaptera novaeangliae*).



Figure 3. Sei whale (*Balaenoptera borealis*).

Table 1 Record of sightings

Date	Time	Latitude deg. dec.	Longitude deg. dec.	No. of animals	Scientific name
13/09/2022	13:45:00	-38.957	143.504	4	Unidentified dolphin
2/10/2022	14:29:00	-39.845	143.328	4	*Megaptera novaeangliae*
2/10/2022	14:32:00	-39.836	143.348	1	*Megaptera novaeangliae*
2/10/2022	14:32:00	-39.836	143.348	5	Unidentified dolphin
2/10/2022	14:33:00	-39.850	143.352	1	*Balaenoptera borealis*
2/10/2022	14:37:00	-39.872	143.380	2	Unidentified dolphin
2/10/2022	14:37:00	-39.884	143.376	7	Unidentified dolphin
2/10/2022	15:17:00	-39.947	143.540	1	*Balaenoptera borealis*
2/10/2022	15:42:00	-39.286	143.902	12	Unidentified dolphin
19/10/22	14:21:00	-39.292	143.898	8	Unidentified dolphin
19/10/22	14:23:00	-39.234	143.970	3	Unidentified dolphin
17/11/22	13:30:00	-39.792	143.273	20	Unidentified dolphin
17/11/22	14:20:00	-39.314	143.858	20	*Delphinus delphis*
2/12/22	14:41:00	-39.830	143.530	15	Unidentified dolphin
2/12/22	15:01:00	-39.272	143.920	8	*Delphinus delphis*